

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

(produced by SZO/BGR - HANNOVER)

March 2020      UPDATED    22.December 2021

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

Event    301001 Fiji Islands region

Date	Time	Err	RMS	Latitude	Longitude	Smaj	Smin	Az	Depth	Err	Ndef	Nsta	Gap	mdist	Mdist	Qual	Author
2020/03/01	18:13:02.88			-21.0200	-178.7900				551.8	16.6		29		146.33	152.37	m i ke	BGR
	301007																

Magnitude    Err    Nsta    Author      OrigID

Sta	Dist	EvAz	Phase	Time	TRes	Azim	AzRes	Slow	SRes	Def	SNR	Amp	Per	Qual	Magnitude
ASSE	148.01		PKPbc	18:31:46.138	-0.0	16.8		2.42		TAS					m_e
BFO	152.07		PKPbc	18:31:55.519		16.8		2.42		TAS					m_e
BFO	152.07		pPKPbc	18:34:06.683						T__					m_e
BRG	148.50		PKPdf	18:31:43.036	0.1	11.9		1.40		TAS					m_e
BRG	148.50		PKPbc	18:31:47.569	0.2	16.8		2.42		TAS					m_e
BRG	148.50		PKPab	18:31:52.580	0.4	13.7		4.31		TAS					m_e
BSEG	146.33		PKPbc	18:31:41.656	-0.2	16.8		2.42		TAS					m_e
BUG	149.18		PKPdf	18:31:43.560		11.9		1.40		TAS					m_e
BUG	149.18		PKPbc	18:31:48.858	0.1	16.8		2.42		TAS					m_e
BUG	149.18		PKPab	18:31:54.155		13.7		4.31		TAS					m_e
CLL	148.31		PKPdf	18:31:42.892	0.1	11.9		1.40		TAS					m_e
CLL	148.31		PKPbc	18:31:46.997	0.1	16.8		2.42		TAS					m_e
CLL	148.31		pPKPbc	18:33:53.270						T__					m_e
CLZ	148.34		PKPdf	18:31:42.606	0.3	11.9		1.40		TAS					m_e
CLZ	148.34		PKPbc	18:31:47.378	0.1	16.8		2.42		TAS					m_e
FLT1	147.71		PKPdf	18:31:41.365	0.2	11.9		1.40		TAS					m_e
FLT1	147.71		PKPbc	18:31:45.088	0.0	16.8		2.42		TAS					m_e
FLT1	147.71		PKPab	18:31:48.858	-0.3	13.7		4.31		TAS					m_e
FLT1	147.71		pPKPbc	18:33:51.916						T__					m_e
FUR	151.65		PKPbc	18:31:54.714	-0.3	16.8		2.42		TAS					m_e
GEC2	150.42		PKPbc	18:31:52.055	0.3	16.8		2.42		TAS					m_e
GOR1	147.07		PKPbc	18:31:43.657	-0.2	16.8		2.42		TAS					m_e

```
./bu12003.txt
```

Tue Jan 04 10:11:49 2022

2

GRA1	150.22	PKPbc	18:31:51.673	-0.2	16.8	2.42	TAS	m_e
GRA1	150.22	PKPab	18:32:00.120		13.7	4.31	TAS	m_e
GTTG	148.69	PKPdf	18:31:43.179	-0.2	11.9	1.40	TAS	m_e
GTTG	148.69	PKPbc	18:31:47.999	0.3	16.8	2.42	TAS	m_e
GTTG	148.69	PKPab	18:31:52.676	-0.2	13.7	4.31	TAS	m_e
HLG	146.42	PKPbc	18:31:42.163	-0.2	16.8	2.42	TAS	m_e
IBBN	148.27	PKPdf	18:31:42.224	0.0	11.9	1.40	TAS	m_e
IBBN	148.27	PKPbc	18:31:46.779	0.5	16.8	2.42	TAS	m_e
IBBN	148.27	PKPab	18:31:51.101	0.5	13.7	4.31	TAS	m_e
KAST	149.26	PKPdf	18:31:43.990		11.9	1.40	TAS	m_e
KAST	149.26	PKPbc	18:31:49.287	0.1	16.8	2.42	TAS	m_e
KAST	149.26	PKPab	18:31:54.775		13.7	4.31	TAS	m_e
MANZ	149.75	PKPbc	18:31:50.671	0.2	16.8	2.42	TAS	m_e
MANZ	149.75	pPKPbc	18:33:59.151				T__	m_e
MOX	149.24	PKPdf	18:31:43.990		11.9	1.40	TAS	m_e
MOX	149.24	PKPbc	18:31:49.240	0.2	16.8	2.42	TAS	m_e
MOX	149.24	PKPab	18:31:55.157		13.7	4.31	TAS	m_e
NEUB	148.69	PKPdf	18:31:43.417	-0.3	11.9	1.40	TAS	m_e
NEUB	148.69	PKPbc	18:31:48.094	-0.2	16.8	2.42	TAS	m_e
NEUB	148.69	PKPab	18:31:53.153		13.7	4.31	TAS	m_e
PLN	149.27	PKPbc	18:31:49.430	0.2	16.8	2.42	TAS	m_e
PLN	149.27	PKPab	18:31:56.255		13.7	4.31	TAS	m_e
RETH	147.63	PKPdf	18:31:41.365	-0.1	11.9	1.40	TAS	m_e
RETH	147.63	PKPbc	18:31:45.246	-0.3	16.8	2.42	TAS	m_e
RETH	147.63	pPKPbc	18:33:52.011				T__	m_e
ROTZ	149.94	PKPdf	18:31:44.801		11.9	1.40	TAS	m_e
ROTZ	149.94	PKPbc	18:31:51.053	0.2	16.8	2.42	TAS	m_e
ROTZ	149.94	PKPab	18:31:58.784		13.7	4.31	TAS	m_e
RUE	147.05	PKPbc	18:31:43.653	0.0	16.8	2.42	TAS	m_e
TANN	149.27	PKPdf	18:31:44.229		11.9	1.40	TAS	m_e
TANN	149.27	PKPbc	18:31:49.478	-0.1	16.8	2.42	TAS	m_e
TNS	150.21	PKPdf	18:31:44.801		11.9	1.40	TAS	m_e
TNS	150.21	PKPbc	18:31:51.626	0.2	16.8	2.42	TAS	m_e
TNS	150.21	PKPab	18:31:59.452		13.7	4.31	TAS	m_e
UBBA	149.38	PKPbc	18:31:49.335	0.2	16.8	2.42	TAS	m_e
UBR	152.37	PKPbc	18:31:56.360		16.8	2.42	TAS	m_e
WET	150.35	PKPbc	18:31:51.817	-0.2	16.8	2.42	TAS	m_e
WET	150.35	PKPab	18:32:00.645		13.7	4.31	TAS	m_e
WLF	151.06	PKPbc	18:31:53.964	-0.3	16.8	2.42	TAS	m_e

Event	301002 Fox Islands, Aleutian Islands, United States
-------	---

Date	Time	Err	RMS	Latitude	Longitude	Smaj	Smin	Az	Depth	Err	Ndef	Nsta	Gap	mdist	Mdist	Qual	Author
OrigID																	
2020/03/01 301008	20:30:15.30			53.8120	-169.6660				33.0					76.74	76.74	m i k e	BGR

./bul2003.txt Tue Jan 04 10:11:49 2022 3

Magnitude Err Nsta Author OrigID  
mb 5.0 BGR 301008

Sta	Dist	EvAz	Phase	Time	TRes	Azim	AzRes	Slow	SRes	Def	SNR	Amp	Per	Qual	Magnitude
GRA1	76.74		P	20:42:02.375		1.5		5.02		TAS		13.7	1.05	m_e mb	5.0

Event 301003 Leyte, Philippine Islands

Date	Time	Err	RMS	Latitude	Longitude	Smaj	Smin	Az	Depth	Err	Ndef	Nsta	Gap	mdist	Mdist	Qual	Author
2020/03/01	21:19:24.10			11.3300	124.6400				40.0					95.98	95.98	m i ke	EMSC
OrigID 301035																	

Magnitude Err Nsta Author OrigID  
mb 5.2 BGR 301009

Sta	Dist	EvAz	Phase	Time	TRes	Azim	AzRes	Slow	SRes	Def	SNR	Amp	Per	Qual	Magnitude
GRA1	95.98		P	21:32:48.153		64.8		4.07		TAS		6.6	0.92	m_e mb	5.2

Event 302001 Rat Islands, Aleutian Islands, United States

Date	Time	Err	RMS	Latitude	Longitude	Smaj	Smin	Az	Depth	Err	Ndef	Nsta	Gap	mdist	Mdist	Qual	Author
2020/03/02	00:31:16.21			51.0000	177.8500				33.0				32	73.90	81.00	m i ke	BGR
OrigID 302007																	

Magnitude Err Nsta Author OrigID  
mb 5.7 BGR 302007  
Ms 5.0 BGR 302007

Sta	Dist	EvAz	Phase	Time	TRes	Azim	AzRes	Slow	SRes	Def	SNR	Amp	Per	Qual	Magnitude
ASSE	76.54		P	00:43:03.592	-0.7	8.7		5.56		TAS		61.3	1.04	m_e mb	5.7
BFO	80.51		P	00:43:25.956	-0.4	8.7		5.56		TAS		24.6	0.75	a_e mb	5.3
BRG	77.45		P	00:43:09.140	-0.2	8.7		5.56		TAS		27.6	0.71	m_e mb	5.5
BSEG	74.78		P	00:42:54.556	0.1	8.7		5.56		TAS		64.3	0.69	a_e mb	5.8
BUG	77.49		P	00:43:09.256	-0.3	8.7		5.56		TAS		56.2	0.70	a_e mb	5.8
CLL	77.13		P	00:43:06.967	-0.6	8.7		5.56		TAS		29.3	0.66	m_e mb	5.5
CLZ	76.85		P	00:43:06.456	0.4	8.7		5.56		TAS		92.9	0.80	a_e mb	6.0
FLT1	76.29		P	00:43:02.406	-0.5	8.7		5.56		TAS		70.6	0.77	a_e mb	5.9
FUR	80.41		P	00:43:25.975	0.2	8.7		5.56		TAS		50.1	0.72	m_e mb	5.6
GEC2	79.48		P	00:43:20.437	-0.1	8.7		5.56		TAS		22.6	0.65	m_e mb	5.2
GOR1	75.63		P	00:42:59.606	0.4	8.7		5.56		TAS		187.4	1.14	a_e mb	6.1
GRA1	78.91		P	00:43:17.739	0.3	8.7		5.56		TAS		78.6	0.70	m_e mb	5.8
GRA1	78.91		L	01:22:52.871						T__		854.4	21.50	a_e Ms	5.0
GTTG	77.18		P	00:43:08.206	0.3	8.7		5.56		TAS		116.5	1.05	a_e mb	5.9

./bul2003.txt

Tue Jan 04 10:11:49 2022

4

HLG	74.72	P	00:42:54.206	0.1	8.7	5.56	TAS	137.9	0.55	a_e	mb	6.2
IBBN	76.60	P	00:43:04.756	0.2	8.7	5.56	TAS	235.5	0.84	a_e	mb	6.3
KAST	77.65	P	00:43:10.556	0.1	8.7	5.56	TAS	34.0	0.77	a_e	mb	5.5
MANZ	78.53	P	00:43:15.406	0.1	8.7	5.56	TAS	6.0	0.77	a_e	mb	4.7
MOX	77.92	P	00:43:12.006	0.0	8.7	5.56	TAS	30.9	0.65	a_e	mb	5.6
MOX	77.92	L	01:23:58.996				T__	830.6	20.90	a_e	Ms	5.0
NEUB	77.37	P	00:43:08.906	0.0	8.7	5.56	TAS	131.4	0.97	m_e	mb	6.0
PLN	78.03	P	00:43:12.556	0.0	8.7	5.56	TAS	12.0	0.83	a_e	mb	5.1
RETH	76.05	P	00:43:01.606	0.1	8.7	5.56	TAS	113.4	1.05	a_e	mb	5.9
RGN	73.90	P	00:42:49.606	0.0	8.7	5.56	TAS	243.7	0.72	a_e	mb	6.3
RJOB	80.67	P	00:43:27.356	0.1	8.7	5.56	TAS	43.9	0.77	a_e	mb	5.6
ROTZ	78.73	P	00:43:16.544	0.1	8.7	5.56	TAS	6.6	0.86	m_e	mb	4.7
RUE	75.89	P	00:43:00.706	0.1	8.7	5.56	TAS	69.5	0.80	a_e	mb	5.8
STU	80.00	P	00:43:23.478	-0.1	8.7	5.56	TAS	162.0	0.95	m_e	mb	5.9
TANN	78.07	P	00:43:12.748	-0.0	8.7	5.56	TAS	14.9	0.60	m_e	mb	5.3
TNS	78.62	P	00:43:15.806	-0.0	8.7	5.56	TAS	59.4	0.74	a_e	mb	5.7
UBBA	77.90	P	00:43:11.646	-0.2	8.7	5.56	TAS	66.1	1.28	m_e	mb	5.6
UBR	81.00	P	00:43:29.006	-0.1	8.7	5.56	TAS	24.8	0.84	a_e	mb	5.3
WET	79.28	P	00:43:19.906	0.4	8.7	5.56	TAS	20.3	0.83	a_e	mb	5.2
WLF	79.33	P	00:43:19.856	0.1	8.7	5.56	TAS	92.5	1.01	a_e	mb	5.8

Event 302004 Vanuatu Islands

Date	Time	Err	RMS	Latitude	Longitude	Smaj	Smin	Az	Depth	Err	Ndef	Nsta	Gap	mdist	Mdist	Qual	Author
2020/03/02	08:19:43.00			-18.8500	169.3700				10.0					144.54	144.54	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	144.54		PKP	08:39:21.658		37.5		3.10		TAS		15.9	1.13	m_e	

Event 303001 Rat Islands, Aleutian Islands, United States

Date	Time	Err	RMS	Latitude	Longitude	Smaj	Smin	Az	Depth	Err	Ndef	Nsta	Gap	mdist	Mdist	Qual	Author
2020/03/03	08:42:00.76			51.0000	176.7500				33.0					26	73.79	80.90	m i ke BGR

Magnitude Err Nsta Author OrigID  
mb 5.1 BGR 303007

Sta	Dist	EvAz	Phase	Time	TRes	Azim	AzRes	Slow	SRes	Def	SNR	Amp	Per	Qual	Magnitude
ASSE	76.44		P	08:53:49.000	0.3	9.0		5.56		TAS		43.7	1.26	m_e mb	5.4

./bul2003.txt

Tue Jan 04 10:11:49 2022

5

BFO	80.42	P	08:54:10.607		9.0	5.56	TAS	8.7	0.93	m_e	mb	4.8
BRG	77.33	P	08:53:53.797	-0.1	9.0	5.56	TAS	16.7	1.20	m_e	mb	5.0
BSEG	74.69	P	08:53:39.313	0.0	9.0	5.56	TAS	27.7	0.94	m_e	mb	5.3
CLL	77.01	P	08:53:51.816	0.0	9.0	5.56	TAS	11.3	0.87	m_e	mb	5.0
CLZ	76.75	P	08:53:51.138	0.6	9.0	5.56	TAS	42.0	1.02	m_e	mb	5.5
FLT1	76.19	P	08:53:47.070	-0.1	9.0	5.56	TAS	26.1	0.93	m_e	mb	5.3
GEC2	79.35	P	08:54:05.478		9.0	5.56	TAS	7.7	0.79	m_e	mb	4.8
GOR1	75.53	P	08:53:43.865	-0.1	9.0	5.56	TAS	37.3	1.05	m_e	mb	5.5
GRA1	78.80	P	08:54:02.870	-0.6	9.0	5.56	TAS	23.8	0.82	m_e	mb	5.3
GTTG	77.08	P	08:53:53.223	-0.4	9.0	5.56	TAS	54.1	1.24	m_e	mb	5.5
HLG	74.64	P	08:53:39.062	0.1	9.0	5.56	TAS	115.4	1.01	m_e	mb	5.9
IBBN	76.52	P	08:53:49.321	-0.6	9.0	5.56	TAS	62.4	0.80	m_e	mb	5.8
KAST	77.56	P	08:53:55.494	-0.2	9.0	5.56	TAS	14.6	0.96	m_e	mb	5.1
MANZ	78.41	P	08:54:00.107	0.7	9.0	5.56	TAS	1.6	0.84	m_e	mb	4.1
MOX	77.81	P	08:53:56.561	-0.0	9.0	5.56	TAS	12.5	0.91	m_e	mb	5.0
NEUB	77.25	P	08:53:53.641	-0.2	9.0	5.56	TAS	40.7	1.02	m_e	mb	5.5
PLN	77.91	P	08:53:57.134	0.0	9.0	5.56	TAS	2.6	0.81	m_e	mb	4.4
RETH	75.96	P	08:53:46.309	-0.0	9.0	5.56	TAS	27.6	1.08	m_e	mb	5.3
RGN	73.79	P	08:53:34.534	0.2	9.0	5.56	TAS	68.8	0.91	m_e	mb	5.7
ROTZ	78.61	P	08:54:01.150	0.1	9.0	5.56	TAS	3.8	1.11	m_e	mb	4.3
TANN	77.95	P	08:53:57.414	-0.1	9.0	5.56	TAS	4.5	0.75	m_e	mb	4.7
TNS	78.53	P	08:54:00.628	-0.1	9.0	5.56	TAS	17.9	0.87	m_e	mb	5.1
UBR	80.90	P	08:54:14.126		9.0	5.56	TAS	9.0	0.96	m_e	mb	4.8
WET	79.15	P	08:54:04.330	0.2	9.0	5.56	TAS	11.0	1.15	m_e	mb	4.8
WLF	79.26	P	08:54:04.487	0.2	9.0	5.56	TAS	34.0	1.09	m_e	mb	5.3

Event 303002 North of Svalbard

Date	Time	Err	RMS	Latitude	Longitude	Smaj	Smin	Az	Depth	Err	Ndef	Nsta	Gap	mdist	Mdist	Qual	Author
2020/03/03	11:57:23.40			80.0200	-0.3700				10.0					30.67	30.67	m i ke	EMSC
303034																	

Magnitude	Err	Nsta	Author	OrigID
mb	4.9		BGR	303008

Sta	Dist	EvAz	Phase	Time	TRes	Azim	AzRes	Slow	SRes	Def	SNR	Amp	Per	Qual	Magnitude	
GRA1	30.67		P	12:03:39.009		356.1		8.85		TAS		18.1	1.04	m_e	mb	4.9

Event 303003 Chagos Archipelago region

Date	Time	Err	RMS	Latitude	Longitude	Smaj	Smin	Az	Depth	Err	Ndef	Nsta	Gap	mdist	Mdist	Qual	Author
2020/03/03	17:31:11.51			-5.1420	68.1640				33.0					73.46	73.46	m i ke	BGR
303009																	

Magnitude	Err	Nsta	Author	OrigID
mb	4.7		BGR	303009

Sta	Dist	EvAz	Phase	Time	TRes	Azim	AzRes	Slow	SRes	Def	SNR	Amp	Per	Qual	Magnitude
GRA1	73.46		P	17:42:41.628		120.8		7.18		TAS		5.9	0.92	m_e	mb 4.7

Event	304001	Myanmar																
Date		Time	Err	RMS	Latitude	Longitude	Smaj	Smin	Az	Depth	Err	Ndef	Nsta	Gap	mdist	Mdist	Qual	Author
OrigID																		
2020/03/04		00:20:03.00			24.5200	96.2500				10.0					68.56	68.56	m i ke	EMSC
304033																		

Magnitude	Err	Nsta	Author	OrigID
mb	4.6		BGR	304007

Sta	Dist	EvAz	Phase	Time	TRes	Azim	AzRes	Slow	SRes	Def	SNR	Amp	Per	Qual	Magnitude
GRA1	68.56		P	00:31:05.324		77.1		5.40		TAS		4.5	1.10	m_e	mb 4.6

Event	304002	South of Fiji Islands																
Date		Time	Err	RMS	Latitude	Longitude	Smaj	Smin	Az	Depth	Err	Ndef	Nsta	Gap	mdist	Mdist	Qual	Author
OrigID																		
2020/03/04		01:04:42.51			-23.3100	-177.1800				33.0				19	148.82	154.91	m i ke	BGR
304008																		

Magnitude	Err	Nsta	Author	OrigID
-----------	-----	------	--------	--------

Sta	Dist	EvAz	Phase	Time	TRes	Azim	AzRes	Slow	SRes	Def	SNR	Amp	Per	Qual	Magnitude
BRG	151.08		PKPbc	01:24:32.492	0.2	15.6		2.33		TAS				m_e	
BSEG	148.82		PKPbc	01:24:26.844	-0.1	15.6		2.33		TAS				m_e	
BUG	151.62		PKPbc	01:24:33.451	0.2	15.6		2.33		TAS				m_e	
CLL	150.88		PKPbc	01:24:31.864	0.1	15.6		2.33		TAS				m_e	
CLZ	150.84		PKPbc	01:24:32.133	0.3	15.6		2.33		TAS				m_e	
FLT1	150.23		PKPbc	01:24:30.071	0.0	15.6		2.33		TAS				m_e	
FUR	154.22		PKPbc	01:24:39.467		15.6		2.33		TAS				m_e	
GEC2	153.03		PKPbc	01:24:36.988		15.6		2.33		TAS				m_e	
GOR1	149.59		PKPbc	01:24:28.728	-0.3	15.6		2.33		TAS				m_e	
KAST	151.73		PKPbc	01:24:34.173	-0.1	15.6		2.33		TAS				m_e	
MANZ	152.32		PKPbc	01:24:35.450		15.6		2.33		TAS				m_e	
MOX	151.78		PKPbc	01:24:34.106	0.0	15.6		2.33		TAS				m_e	
NEUB	151.23		PKPbc	01:24:32.833	0.2	15.6		2.33		TAS				m_e	
PLN	151.83		PKPbc	01:24:34.285	-0.2	15.6		2.33		TAS				m_e	
RUE	149.62		PKPbc	01:24:28.861	0.4	15.6		2.33		TAS				m_e	

./bul2003.txt Tue Jan 04 10:11:49 2022 7

STU	154.01	PKPbc	01:24:39.159	15.6	2.33	TAS	m_e
TANN	151.84	PKPbc	01:24:34.240	-0.2 15.6	2.33	TAS	m_e
TNS	152.69	PKPbc	01:24:36.339	15.6	2.33	TAS	m_e
UBR	154.91	PKPbc	01:24:41.012	15.6	2.33	TAS	m_e

Event 304004 South of Fiji Islands

Date	Time	Err	RMS	Latitude	Longitude	Smaj	Smin	Az	Depth	Err	Ndef	Nsta	Gap	mdist	Mdist	Qual	Author
2020/03/04	17:44:22.65			-23.5920	-179.6400				563.4	0.5		22		148.71	154.66	m i ke	BGR
OrigID 304010																	

Magnitude Err Nsta Author OrigID

Sta	Dist	EvAz	Phase	Time	TRes	Azim	AzRes	Slow	SRes	Def	SNR	Amp	Per	Qual	Magnitude
ASSE	150.35		PKPbc	18:03:11.428	0.2	22.0		2.24		TAS				m_e	
BRG	150.73		PKPbc	18:03:11.998	0.0	22.0		2.24		TAS				m_e	
BSEG	148.71		PKPbc	18:03:07.224	-0.1	22.0		2.24		TAS				m_e	
CLL	150.59		PKPbc	18:03:11.511	0.1	22.0		2.24		TAS				m_e	
CLZ	150.68		PKPbc	18:03:12.146	-0.0	22.0		2.24		TAS				m_e	
FLT1	150.05		PKPbc	18:03:10.388	-0.1	22.0		2.24		TAS				m_e	
GEC2	152.62		PKPbc	18:03:16.304		22.0		2.24		TAS				m_e	
GOR1	149.41		PKPbc	18:03:09.264	-0.1	22.0		2.24		TAS				m_e	
GTTG	151.05		PKPbc	18:03:12.802	-0.0	22.0		2.24		TAS				m_e	
GTTG	151.05		pPKPbc	18:05:23.390	-0.2					T__				m_e	
IBBN	150.69		PKPbc	18:03:12.325	0.2	22.0		2.24		TAS				m_e	
IBBN	150.69		pPKPbc	18:05:22.913	-0.2					T__				m_e	
KAST	151.66		PKPbc	18:03:14.092	-0.1	22.0		2.24		TAS				m_e	
MANZ	152.02		PKPbc	18:03:15.008	-0.1	22.0		2.24		TAS				m_e	
MOX	151.54		PKPbc	18:03:13.759	-0.1	22.0		2.24		TAS				m_e	
NEUB	150.99		PKPbc	18:03:12.719	0.1	22.0		2.24		TAS				m_e	
PLN	151.55		PKPbc	18:03:13.759	0.1	22.0		2.24		TAS				m_e	
PLN	151.55		pPKPbc	18:05:24.210	-0.2					T__				m_e	
RETH	150.02		PKPbc	18:03:10.554	0.2	22.0		2.24		TAS				m_e	
ROTZ	152.20		PKPbc	18:03:15.299	-0.1	22.0		2.24		TAS				m_e	
RUE	149.32		PKPbc	18:03:08.681	0.0	22.0		2.24		TAS				m_e	
TANN	151.54		PKPbc	18:03:13.926	-0.1	22.0		2.24		TAS				m_e	
TNS	152.59		PKPbc	18:03:16.215		22.0		2.24		TAS				m_e	
UBR	154.66		PKPbc	18:03:20.671		22.0		2.24		TAS				m_e	
WET	152.59		PKPbc	18:03:16.104		22.0		2.24		TAS				m_e	

Event 305002 Kyrgyzstan

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

./bul2003.txt Tue Jan 04 10:11:49 2022 8

2020/03/05 08:22:37.56 40.0200 73.4710 33.0 43.98 43.98 m i ke BGR  
305008

Magnitude Err Nsta Author OrigID  
mb 4.6 BGR 305008

Sta	Dist	EvAz	Phase	Time	TRes	Azim	AzRes	Slow	SRes	Def	SNR	Amp	Per	Qual	Magnitude
GRA1	43.98		P	08:30:41.005		87.0		6.70		TAS		9.6	0.81	m_e mb	4.6

Event 306002 South Indian Ocean  
Date Time Err RMS Latitude Longitude Smaj Smin Az Depth Err Ndef Nsta Gap mdist Mdist Qual Author  
OrigID  
2020/03/06 10:28:39.54 -30.7550 62.0300 10.0 91.98 91.98 m i ke BGR  
306008

Magnitude Err Nsta Author OrigID  
mb 5.3 BGR 306008

Sta	Dist	EvAz	Phase	Time	TRes	Azim	AzRes	Slow	SRes	Def	SNR	Amp	Per	Qual	Magnitude
GRA1	91.98		P	10:41:46.318		134.2		5.71		TAS		14.8	1.02	m_e mb	5.3

Event 307002 Kuril Islands, Russia  
Date Time Err RMS Latitude Longitude Smaj Smin Az Depth Err Ndef Nsta Gap mdist Mdist Qual Author  
OrigID  
2020/03/07 05:01:56.39 45.1840 148.2710 33.0 78.27 78.27 m i ke BGR  
307008

Magnitude Err Nsta Author OrigID  
mb 5.1 BGR 307008

Sta	Dist	EvAz	Phase	Time	TRes	Azim	AzRes	Slow	SRes	Def	SNR	Amp	Per	Qual	Magnitude
GRA1	78.27		P	05:13:55.446		28.6		4.82		TAS		12.8	0.84	m_e mb	5.1

Event 307003 Canary Islands, Spain, region  
Date Time Err RMS Latitude Longitude Smaj Smin Az Depth Err Ndef Nsta Gap mdist Mdist Qual Author  
OrigID  
2020/03/07 20:57:50.60 30.0500 -17.1700 10.0 20 26.35 31.89 m i ke BGR  
307009

Magnitude Err Nsta Author OrigID



./bul2003.txt Tue Jan 04 10:11:49 2022 9

mb 4.5 BGR 307009

Sta	Dist	EvAz	Phase	Time	TRes	Azim	AzRes	Slow	SRes	Def	SNR	Amp	Per	Qual	Magnitude
BFO	26.70		P	21:03:27.625		235.9		8.81		TAS		12.9	0.94	m_e mb	4.6
BRG	31.14		P	21:04:06.482	-0.3	235.9		8.81		TAS		3.5	0.83	m_e mb	4.3
BSEG	31.05		P	21:04:05.089	-0.3	235.9		8.81		TAS		5.4	0.81	m_e mb	4.5
BUG	28.03		P	21:03:38.647		235.9		8.81		TAS				m_e	
CLZ	29.80		P	21:03:55.351		235.9		8.81		TAS		4.0	0.84	m_e mb	4.3
FLT1	30.52		P	21:04:02.110		235.9		8.81		TAS				m_e	
GEC2	30.03		P	21:03:57.231		235.9		8.81		TAS				m_e	
GRA1	29.04		P	21:03:47.959		235.9		8.81		TAS		12.1	1.06	m_e mb	4.7
GTTG	29.42		P	21:03:51.186	0.8	235.9		8.81		TAS		9.3	0.84	m_e mb	4.7
IBBN	28.82		P	21:03:48.470	-0.6	235.9		8.81		TAS		9.6	0.78	m_e mb	4.7
KAST	28.44		P	21:03:41.951		235.9		8.81		TAS				m_e	
MANZ	29.68		P	21:03:52.772	0.8	235.9		8.81		TAS		0.7	0.98	m_e mb	3.5
MOX	29.76		P	21:03:54.164	1.1	235.9		8.81		TAS		6.1	0.97	m_e mb	4.4
RUE	31.89		P	21:04:13.628		235.9		8.81		TAS		7.7	0.76	m_e mb	4.7
STU	27.43		P	21:03:34.261		235.9		8.81		TAS		90.8	1.02	m_e mb	5.5
TANN	30.10		P	21:03:56.819		235.9		8.81		TAS		2.2	0.86	m_e mb	4.0
TNS	27.86		P	21:03:38.817	0.0	235.9		8.81		TAS		15.3	0.93	m_e mb	4.8
UBR	27.37		P	21:03:33.619		235.9		8.81		TAS		12.9	0.89	m_e mb	4.7
WET	29.70		P	21:03:54.215		235.9		8.81		TAS		7.1	1.10	m_e mb	4.4
WLF	26.35		P	21:03:22.624		235.9		8.81		TAS		38.5	1.01	m_e mb	5.0

Event	308002 Turkey	Date	Time	Err	RMS	Latitude	Longitude	Smaj	Smin	Az	Depth	Err	Ndef	Nsta	Gap	mdist	Mdist	Qual	Author
		2020/03/08	09:47:07.20			32.2440	48.7890				10.0			15		31.05	35.01	m i ke emsc	
		308038																	

Magnitude	Err	Nsta	Author	OrigID
mb	4.6		BGR	308008

Sta	Dist	EvAz	Phase	Time	TRes	Azim	AzRes	Slow	SRes	Def	SNR	Amp	Per	Qual	Magnitude
CLL	32.34		P	09:53:35.066	-0.3	108.8		9.35		TAS		5.7	0.83	m_e mb	4.5
CLZ	34.06		P	09:53:51.015	-0.3	108.8		9.35		TAS		14.0	0.80	m_e mb	4.9
FLT1	33.73		P	09:53:47.839	-0.3	108.8		9.35		TAS		7.6	0.93	m_e mb	4.6
FUR	32.38		P	09:53:35.921		108.8		9.35		TAS		44.6	0.78	m_e mb	5.5
GEC2	31.05		P	09:53:23.768		108.8		9.35		TAS		2.9	0.86	m_e mb	4.2
GRA1	32.85		P	09:53:40.604		108.8		9.35		TAS		13.5	0.80	m_e mb	4.9
KAST	35.01		P	09:53:59.845		108.8		9.35		TAS		8.2	0.78	m_e mb	4.7
MANZ	32.40		P	09:53:36.130		108.8		9.35		TAS		1.0	0.78	m_e mb	3.8
MOX	32.92		P	09:53:40.474		108.8		9.35		TAS		4.7	1.08	m_e mb	4.3
RJOB	31.28		P	09:53:25.664		108.8		9.35		TAS		6.7	0.78	m_e mb	4.6
ROTZ	32.27		P	09:53:35.120		108.8		9.35		TAS		2.3	0.73	m_e mb	4.2
RUE	32.36		P	09:53:34.727	0.6	108.8		9.35		TAS		14.7	0.85	m_e mb	4.9

./bul2003.txt Tue Jan 04 10:11:49 2022 10

UBBA	33.94	P	09:53:49.877	108.8	9.35	TAS	2.8	0.64	m_e	mb	4.3
UBR	33.02	P	09:53:41.582	108.8	9.35	TAS	20.4	0.91	m_e	mb	5.0
WET	31.65	P	09:53:29.364	108.8	9.35	TAS	6.0	0.85	m_e	mb	4.5

Event 308003 Azores Islands, Portugal

Date	Time	Err	RMS	Latitude	Longitude	Smaj	Smin	Az	Depth	Err	Ndef	Nsta	Gap	mdist	Mdist	Qual	Author
OrigID																	
2020/03/08	11:17:45.46			39.1570	-29.4810				10.0					30.55	30.55	m i ke	BGR
308009																	

Magnitude	Err	Nsta	Author	OrigID
mb	4.5		BGR	308009

Sta	Dist	EvAz	Phase	Time	TRes	Azim	AzRes	Slow	SRes	Def	SNR	Amp	Per	Qual	Magnitude	
GRA1	30.55		P	11:23:55.712		264.0		8.52		TAS		6.1	0.87	m_e	mb	4.5

Event 308004 South of Fiji Islands

Date	Time	Err	RMS	Latitude	Longitude	Smaj	Smin	Az	Depth	Err	Ndef	Nsta	Gap	mdist	Mdist	Qual	Author
OrigID																	
2020/03/08	13:15:37.02			-22.1240	-176.2120				33.0				20	147.77	153.91	m i ke	BGR
308010																	

Magnitude	Err	Nsta	Author	OrigID
-----------	-----	------	--------	--------

Sta	Dist	EvAz	Phase	Time	TRes	Azim	AzRes	Slow	SRes	Def	SNR	Amp	Per	Qual	Magnitude
ASSE	149.49		PKPbc	13:35:22.753	0.8	14.7		2.39		TAS				m_e	
BFO	153.51		PKPbc	13:35:32.359		14.7		2.39		TAS				m_e	
BRG	150.15		PKPbc	13:35:24.672	0.3	14.7		2.39		TAS				m_e	
BSEG	147.77		PKPbc	13:35:18.280	-0.7	14.7		2.39		TAS				m_e	
CLL	149.92		PKPbc	13:35:23.753	-0.1	14.7		2.39		TAS				m_e	
CLZ	149.81		PKPbc	13:35:23.488	-0.1	14.7		2.39		TAS				m_e	
FLT1	149.22		PKPbc	13:35:21.658	-0.4	14.7		2.39		TAS				m_e	
FUR	153.25		PKPbc	13:35:31.778		14.7		2.39		TAS				m_e	
GEC2	152.11		PKPbc	13:35:29.309	-0.5	14.7		2.39		TAS				m_e	
GRA1	151.78		PKPbc	13:35:28.516	-0.4	14.7		2.39		TAS				m_e	
GTTG	150.16		PKPbc	13:35:24.494	0.3	14.7		2.39		TAS				m_e	
KAST	150.66		PKPbc	13:35:25.884	0.0	14.7		2.39		TAS				m_e	
MANZ	151.35		PKPbc	13:35:27.448	0.5	14.7		2.39		TAS				m_e	
MOX	150.79		PKPbc	13:35:25.869	0.4	14.7		2.39		TAS				m_e	
RJOB	153.36		PKPbc	13:35:31.858		14.7		2.39		TAS				m_e	
ROTZ	151.54		PKPbc	13:35:27.789	-0.1	14.7		2.39		TAS				m_e	
STU	152.97		PKPbc	13:35:31.440	-0.1	14.7		2.39		TAS				m_e	
TANN	150.87		PKPbc	13:35:26.365	0.4	14.7		2.39		TAS				m_e	

./bul2003.txt

Tue Jan 04 10:11:49 2022

11

TNS	151.63	PKPbc	13:35:28.324	0.2	14.7	2.39	TAS	m_e
UBBA	150.86	PKPbc	13:35:26.385	0.2	14.7	2.39	TAS	m_e
UBR	153.91	PKPbc	13:35:33.487		14.7	2.39	TAS	m_e
WET	152.00	PKPbc	13:35:28.791	-0.1	14.7	2.39	TAS	m_e
WLF	152.36	PKPbc	13:35:30.234	-0.4	14.7	2.39	TAS	m_e

Event 308005 North Atlantic Ocean

Date	Time	Err	RMS	Latitude	Longitude	Smaj	Smin	Az	Depth	Err	Ndef	Nsta	Gap	mdist	Mdist	Qual	Author
2020/03/08	15:38:47.82			56.9320	-29.5010				10.0					25.04	25.04	m i ke	BGR
OrigID 308011																	

Magnitude	Err	Nsta	Author	OrigID
mb	4.7		BGR	308011

Sta	Dist	EvAz	Phase	Time	TRes	Azim	AzRes	Slow	SRes	Def	SNR	Amp	Per	Qual	Magnitude
GRA1	25.04		P	15:44:08.727		299.7		8.90		TAS		13.9	0.81	m_e mb	4.7

Event 308006 Western Honshu, Japan

Date	Time	Err	RMS	Latitude	Longitude	Smaj	Smin	Az	Depth	Err	Ndef	Nsta	Gap	mdist	Mdist	Qual	Author
2020/03/08	19:28:48.09			34.5090	132.0260				33.0					81.05	81.05	m i ke	BGR
OrigID 308012																	

Magnitude	Err	Nsta	Author	OrigID
mb	4.9		BGR	308012

Sta	Dist	EvAz	Phase	Time	TRes	Azim	AzRes	Slow	SRes	Def	SNR	Amp	Per	Qual	Magnitude
GRA1	81.05		P	19:40:59.116		52.6		4.81		TAS		10.5	0.86	m_e mb	4.9

Event 308007 Azores Islands region

Date	Time	Err	RMS	Latitude	Longitude	Smaj	Smin	Az	Depth	Err	Ndef	Nsta	Gap	mdist	Mdist	Qual	Author
2020/03/08	21:00:14.89			42.1820	-23.1240				10.0					24.85	24.85	m i ke	BGR
OrigID 308013																	

Magnitude	Err	Nsta	Author	OrigID
mb	4.1		BGR	308013

Sta	Dist	EvAz	Phase	Time	TRes	Azim	AzRes	Slow	SRes	Def	SNR	Amp	Per	Qual	Magnitude
-----	------	------	-------	------	------	------	-------	------	------	-----	-----	-----	-----	------	-----------

./bul2003.txt Tue Jan 04 10:11:49 2022 12

GRA1 24.85 P 21:05:34.204 264.1 8.85 TAS 3.8 0.89 m\_e mb 4.1

Event 308008 Central Mid-Atlantic Ridge

Date	Time	Err	RMS	Latitude	Longitude	Smaj	Smin	Az	Depth	Err	Ndef	Nsta	Gap	mdist	Mdist	Qual	Author
2020/03/08	22:48:58.46			5.8110	-34.6940				10.0					58.28	58.28	m i ke	BGR
OrigID 308014																	

Magnitude	Err	Nsta	Author	OrigID
mb	4.8		BGR	308014

Sta	Dist	EvAz	Phase	Time	TRes	Azim	AzRes	Slow	SRes	Def	SNR	Amp	Per	Qual	Magnitude
GRA1	58.28		P	22:58:50.629		234.6		6.79		TAS		8.0	0.71	m_e mb	4.8

Event 309001 Off coast of northern California, United States

Date	Time	Err	RMS	Latitude	Longitude	Smaj	Smin	Az	Depth	Err	Ndef	Nsta	Gap	mdist	Mdist	Qual	Author
2020/03/09	02:59:09.04			40.7960	-129.5900				33.0				8	79.43	85.63	m i ke	BGR
OrigID 309007																	

Magnitude	Err	Nsta	Author	OrigID
mb	4.6		BGR	309007

Sta	Dist	EvAz	Phase	Time	TRes	Azim	AzRes	Slow	SRes	Def	SNR	Amp	Per	Qual	Magnitude
ASSE	81.11		P	03:11:19.843	-0.5	331.2		5.15		TAS		4.7	0.85	m_e mb	4.5
BFO	83.65		P	03:11:33.585		331.2		5.15		TAS		3.1	0.83	m_e mb	4.6
BRG	83.18		P	03:11:31.047	-0.4	331.2		5.15		TAS		14.9	0.75	m_e mb	5.3
BSEG	79.43		P	03:11:11.267	-0.6	331.2		5.15		TAS		5.1	0.85	m_e mb	4.5
BUG	80.63		P	03:11:17.937	-0.5	331.2		5.15		TAS		7.3	1.04	m_e mb	4.6
CLL	82.52		P	03:11:27.411	-0.5	331.2		5.15		TAS		6.9	0.84	m_e mb	4.9
CLZ	81.27		P	03:11:21.028	-0.5	331.2		5.15		TAS				m_e	
GEC2	84.92		P	03:11:39.812		331.2		5.15		TAS		3.5	0.93	m_e mb	4.6
GRA1	83.41		P	03:11:32.300		331.2		5.15		TAS		7.4	0.82	m_e mb	5.0
MANZ	83.43		P	03:11:32.028		331.2		5.15		TAS		0.9	0.76	m_e mb	4.1
MOX	82.69		P	03:11:28.530		331.2		5.15		TAS		5.5	0.90	m_e mb	4.8
NEUB	82.26		P	03:11:26.375	-0.5	331.2		5.15		TAS		11.8	0.81	m_e mb	5.1
RJOB	85.63		P	03:11:43.487		331.2		5.15		TAS		6.0	0.90	m_e mb	4.7
ROTZ	83.65		P	03:11:33.182		331.2		5.15		TAS		0.4	0.76	m_e mb	3.8
TANN	83.15		P	03:11:30.637		331.2		5.15		TAS		3.2	0.82	m_e mb	4.6
TNS	82.06		P	03:11:25.322		331.2		5.15		TAS		3.0	0.89	m_e mb	4.4
UBR	84.81		P	03:11:39.549		331.2		5.15		TAS		5.1	0.88	m_e mb	4.8
WET	84.40		P	03:11:37.043		331.2		5.15		TAS		1.6	0.87	m_e mb	4.3

Event 309002 Xizang  
 Date Time Err RMS Latitude Longitude Smaj Smin Az Depth Err Ndef Nsta Gap mdist Mdist Qual Author  
 OrigID  
 2020/03/09 18:12:24.94 32.7880 83.4010 33.0 6 52.80 55.15 m i ke BGR  
 309008

Magnitude Err Nsta Author OrigID  
 mb 4.4 BGR 309008

Sta	Dist	EvAz	Phase	Time	TRes	Azim	AzRes	Slow	SRes	Def	SNR	Amp	Per	Qual	Magnitude
BRG	52.80		P	18:21:36.066	0.1	79.1		7.26		TAS		5.6	0.85	m_e mb	4.5
BSEG	54.54		P	18:21:47.987	0.4	79.1		7.26		TAS		4.1	0.77	m_e mb	4.5
CLZ	54.85		P	18:21:50.719	0.1	79.1		7.26		TAS		9.4	0.85	m_e mb	4.8
FLT1	54.24		P	18:21:46.411	-0.9	79.1		7.26		TAS		9.5	0.84	m_e mb	4.8
GEC2	53.27		P	18:21:39.590		79.1		7.26		TAS		3.7	0.85	m_e mb	4.3
GRA1	54.72		P	18:21:50.446		79.1		7.26		TAS		6.1	0.87	m_e mb	4.7
GTTG	55.15		P	18:21:53.475	0.1	79.1		7.26		TAS		13.0	0.99	m_e mb	4.9
MANZ	54.10		P	18:21:45.892		79.1		7.26		TAS		0.6	0.81	m_e mb	3.7
MOX	54.29		P	18:21:47.012		79.1		7.26		TAS		2.3	0.80	m_e mb	4.3
ROTZ	54.07		P	18:21:45.892		79.1		7.26		TAS		0.8	0.83	m_e mb	3.8
TANN	53.80		P	18:21:43.306		79.1		7.26		TAS		2.6	0.81	m_e mb	4.3
WET	53.75		P	18:21:43.553		79.1		7.26		TAS		2.3	0.77	m_e mb	4.3

Event 309003 Near coast of Libya  
 Date Time Err RMS Latitude Longitude Smaj Smin Az Depth Err Ndef Nsta Gap mdist Mdist Qual Author  
 OrigID  
 2020/03/09 22:18:12.73 30.1000 22.9610 10.0 21.49 21.49 m i ke BGR  
 309009

Magnitude Err Nsta Author OrigID  
 mb 4.2 BGR 309009

Sta	Dist	EvAz	Phase	Time	TRes	Azim	AzRes	Slow	SRes	Def	SNR	Amp	Per	Qual	Magnitude
GRA1	21.49		P	22:22:59.272		152.6		11.02		TAS		7.9	0.68	m_e mb	4.2

Event 310001 Fiji Islands region  
 Date Time Err RMS Latitude Longitude Smaj Smin Az Depth Err Ndef Nsta Gap mdist Mdist Qual Author  
 OrigID  
 2020/03/10 05:45:15.12 -17.5530 -176.1540 33.0 7 145.46 149.43 m i ke BGR  
 310007

Magnitude	Err	Nsta	Author	OrigID												
Sta	Dist	EvAz	Phase	Time	TRes	Azim	AzRes	Slow	SRes	Def	SNR	Amp	Per	Qual	Magnitude	
BFO	148.99		PKPbc	06:04:59.997		13.1		2.87		TAS				m_e		
BRG	145.71		PKPbc	06:04:50.649	0.1	13.1		2.87		TAS				m_e		
BUG	145.99		PKPbc	06:04:51.752	0.3	13.1		2.87		TAS				m_e		
CLL	145.46		PKPbc	06:04:49.543	0.0	13.1		2.87		TAS				m_e		
GEC2	147.69		PKPbc	06:04:56.536		13.1		2.87		TAS				m_e		
GTTG	145.65		PKPbc	06:04:50.148	0.3	13.1		2.87		TAS				m_e		
KAST	146.14		PKPbc	06:04:51.887	0.0	13.1		2.87		TAS				m_e		
MANZ	146.88		PKPbc	06:04:54.130	0.0	13.1		2.87		TAS				m_e		
MOX	146.31		PKPbc	06:04:52.183	-0.1	13.1		2.87		TAS				m_e		
ROTZ	147.08		PKPbc	06:04:54.557	0.0	13.1		2.87		TAS				m_e		
TANN	146.41		PKPbc	06:04:52.647		13.1		2.87		TAS				m_e		
TNS	147.11		PKPbc	06:04:55.030	0.0	13.1		2.87		TAS				m_e		
UBBA	146.36		PKPbc	06:04:52.389	0.0	13.1		2.87		TAS				m_e		
UBR	149.43		PKPbc	06:05:00.579	0.0	13.1		2.87		TAS				m_e		
WET	147.56		PKPbc	06:04:56.221	0.0	13.1		2.87		TAS				m_e		
WLF	147.82		PKPbc	06:04:57.391	0.0	13.1		2.87		TAS				m_e		

Event 310002 Northern Sumatera, Indonesia

Date	Time	Err	RMS	Latitude	Longitude	Smaj	Smin	Az	Depth	Err	Ndef	Nsta	Gap	mdist	Mdist	Qual	Author
2020/03/10	23:08:36.93		5.2860	95.5410					33.0			5		80.69	84.83	m i ke	BGR
OrigID	310008																

Magnitude	Err	Nsta	Author	OrigID
mb	4.8		BGR	310008

Sta	Dist	EvAz	Phase	Time	TRes	Azim	AzRes	Slow	SRes	Def	SNR	Amp	Per	Qual	Magnitude	
ASSE	82.71		P	23:20:57.340		90.9		5.22		TAS		6.2	0.79	m_e	mb	4.9
BSEG	82.94		P	23:20:58.673	0.1	90.9		5.22		TAS		6.0	0.71	m_e	mb	4.9
BUG	84.83		P	23:21:08.333		90.9		5.22		TAS		8.5	0.69	m_e	mb	5.1
CLZ	82.89		P	23:20:58.140		90.9		5.22		TAS		10.3	0.67	m_e	mb	5.2
FLT1	82.37		P	23:20:55.552		90.9		5.22		TAS		6.1	0.63	m_e	mb	4.9
GEC2	80.69		P	23:20:46.957	0.1	90.9		5.22		TAS		2.9	0.76	m_e	mb	4.4
GRA1	82.33		P	23:20:55.598	0.1	90.9		5.22		TAS		7.2	0.66	m_e	mb	4.9
MOX	82.09		P	23:20:54.213		90.9		5.22		TAS		2.0	0.74	m_e	mb	4.3
RJOB	81.25		P	23:20:50.607		90.9		5.22		TAS		3.4	0.62	m_e	mb	4.5
ROTZ	81.69		P	23:20:52.339		90.9		5.22		TAS		0.9	0.78	m_e	mb	4.0
RUE	80.82		P	23:20:47.480	0.1	90.9		5.22		TAS		48.3	0.70	m_e	mb	5.6
WET	81.24		P	23:20:49.617		90.9		5.22		TAS		3.0	0.71	m_e	mb	4.4

Event 311001 Fiji Islands

Date	Time	Err	RMS	Latitude	Longitude	Smaj	Smin	Az	Depth	Err	Ndef	Nsta	Gap	mdist	Mdist	Qual	Author
2020/03/11	01:02:57.24			-17.4240	177.9270				33.0			16		144.05	147.94	m i ke	BGR
OrigID 311007																	

Magnitude	Err	Nsta	Author	OrigID
-----------	-----	------	--------	--------

Sta	Dist	EvAz	Phase	Time	TRes	Azim	AzRes	Slow	SRes	Def	SNR	Amp	Per	Qual	Magnitude
BFO	147.94		PKPbc	01:22:41.697	0.1	23.1		4.29		TAS					m_e
BRG	144.19		PKPbc	01:22:25.506	-0.1	23.1		4.29		TAS					m_e
CLL	144.05		PKPbc	01:22:24.885	0.1	23.1		4.29		TAS					m_e
FUR	147.38		PKPbc	01:22:39.213	-0.1	23.1		4.29		TAS					m_e
GEC2	146.07		PKPbc	01:22:33.284	-0.1	23.1		4.29		TAS					m_e
GRA1	145.99		PKPbc	01:22:33.094	-0.1	23.1		4.29		TAS					m_e
GTTG	144.56		PKPbc	01:22:26.971	-0.1	23.1		4.29		TAS					m_e
IBBN	144.25		PKPbc	01:22:26.031	-0.1	23.1		4.29		TAS					m_e
MANZ	145.49		PKPbc	01:22:31.120	0.0	23.1		4.29		TAS					m_e
MOX	145.01		PKPbc	01:22:28.796	0.0	23.1		4.29		TAS					m_e
RJOB	147.33		PKPbc	01:22:38.916		23.1		4.29		TAS					m_e
ROTZ	145.66		PKPbc	01:22:31.721	0.0	23.1		4.29		TAS					m_e
STU	147.33		PKPbc	01:22:38.795	0.1	23.1		4.29		TAS					m_e
TANN	145.01		PKPbc	01:22:28.907	0.1	23.1		4.29		TAS					m_e
TNS	146.12		PKPbc	01:22:33.917	0.2	23.1		4.29		TAS					m_e
WET	146.04		PKPbc	01:22:33.318	-0.3	23.1		4.29		TAS					m_e

Event 311002 Northwest of New Caledonia

Date	Time	Err	RMS	Latitude	Longitude	Smaj	Smin	Az	Depth	Err	Ndef	Nsta	Gap	mdist	Mdist	Qual	Author
2020/03/11	15:16:37.77			-15.0620	160.6580				33.0			18		134.75	139.72	m i ke	BGR
OrigID 311008																	

Magnitude	Err	Nsta	Author	OrigID
-----------	-----	------	--------	--------

Ms	4.9		BGR	311008
----	-----	--	-----	--------

Sta	Dist	EvAz	Phase	Time	TRes	Azim	AzRes	Slow	SRes	Def	SNR	Amp	Per	Qual	Magnitude
ASSE	135.93		PKPdf	15:35:55.809	-0.2	46.5		1.87		TAS					m_e
BFO	139.72		PKPdf	15:36:02.784	-0.2	46.5		1.87		TAS					m_e
BRG	135.33		PKPdf	15:35:54.889	0.1	46.5		1.87		TAS					m_e
BSEG	134.75		PKPdf	15:35:53.754	-0.2	46.5		1.87		TAS					m_e
BUG	137.85		PKPdf	15:35:59.840	0.1	46.5		1.87		TAS					m_e
CLL	135.48		PKPdf	15:35:55.139	0.1	46.5		1.87		TAS					m_e
CLZ	136.27		PKPdf	15:35:56.698	0.1	46.5		1.87		TAS					m_e
FLT1	135.55		PKPdf	15:35:55.106	-0.2	46.5		1.87		TAS					m_e
GEC2	136.77		PKPdf	15:35:57.487	-0.0	46.5		1.87		TAS					m_e

./bul2003.txt Tue Jan 04 10:11:49 2022 16

GTTG	136.66	PKPdf	15:35:57.379	0.0	46.5	1.87	TAS	m_e
KAST	137.57	PKPdf	15:35:59.233	0.1	46.5	1.87	TAS	m_e
MANZ	136.79	PKPdf	15:35:57.704	0.2	46.5	1.87	TAS	m_e
MOX	136.57	PKPdf	15:35:57.088	-0.0	46.5	1.87	TAS	m_e
MOX	136.57	L	16:32:21.138				T__	224.2 19.30 a_e Ms 4.9
RJOB	137.94	PKPdf	15:35:59.721	-0.0	46.5	1.87	TAS	m_e
TANN	136.33	PKPdf	15:35:56.729	0.1	46.5	1.87	TAS	m_e
TNS	138.28	PKPdf	15:36:00.593	0.2	46.5	1.87	TAS	m_e
UBR	139.33	PKPdf	15:36:02.235	-0.1	46.5	1.87	TAS	m_e
WET	136.98	PKPdf	15:35:57.920	0.0	46.5	1.87	TAS	m_e

Event 312001 Kamchatka Peninsula, Russia

Date	Time	Err	RMS	Latitude	Longitude	Smaj	Smin	Az	Depth	Err	Ndef	Nsta	Gap	mdist	Mdist	Qual	Author
2020/03/12	05:20:22.86			54.5100	155.3000				33.0			20		69.30	73.90	m i ke	BGR
312007																	

Magnitude	Err	Nsta	Author	OrigID
mb	4.8		BGR	312007

Sta	Dist	EvAz	Phase	Time	TRes	Azim	AzRes	Slow	SRes	Def	SNR	Amp	Per	Qual	Magnitude
BFO	73.69		P	05:31:54.317	-0.3	21.3		6.01		TAS		5.9	0.75	m_e mb	4.7
BRG	70.01		P	05:31:32.254	-0.1	21.3		6.01		TAS		3.2	0.76	m_e mb	4.5
BUG	70.98		P	05:31:38.373	0.2	21.3		6.01		TAS		19.9	0.86	m_e mb	5.3
CLL	69.84		P	05:31:31.133	-0.2	21.3		6.01		TAS		8.1	0.93	m_e mb	4.8
CLZ	69.94		P	05:31:31.762	-0.3	21.3		6.01		TAS		10.7	0.78	m_e mb	5.0
FLT1	69.30		P	05:31:28.019	-0.1	21.3		6.01		TAS		8.9	0.77	m_e mb	5.1
FUR	73.17		P	05:31:51.056	-0.4	21.3		6.01		TAS		16.0	0.56	m_e mb	5.4
GEC2	71.95		P	05:31:44.145	0.2	21.3		6.01		TAS		2.1	0.71	m_e mb	4.4
GRA1	71.76		P	05:31:43.114	0.1	21.3		6.01		TAS		10.6	0.74	m_e mb	5.1
GTTG	70.31		P	05:31:33.965	-0.3	21.3		6.01		TAS		11.7	0.91	m_e mb	5.0
KAST	70.97		P	05:31:38.224	0.1	21.3		6.01		TAS		10.9	0.91	m_e mb	5.0
MANZ	71.28		P	05:31:40.397	0.3	21.3		6.01		TAS		0.8	0.88	m_e mb	3.9
MOX	70.78		P	05:31:36.961	-0.1	21.3		6.01		TAS		3.3	0.75	m_e mb	4.5
ROTZ	71.46		P	05:31:41.545	0.4	21.3		6.01		TAS		1.0	0.85	m_e mb	4.0
TANN	70.80		P	05:31:37.344	0.2	21.3		6.01		TAS				m_e	
TNS	71.88		P	05:31:43.882	0.2	21.3		6.01		TAS		9.1	0.69	m_e mb	5.0
UBBA	70.98		P	05:31:38.131	-0.2	21.3		6.01		TAS		3.3	0.78	m_e mb	4.5
UBR	73.90		P	05:31:55.497	-0.4	21.3		6.01		TAS		7.7	1.00	m_e mb	4.7
WET	71.87		P	05:31:43.918	0.3	21.3		6.01		TAS		7.5	0.89	m_e mb	4.8
WLF	72.89		P	05:31:50.053	0.4	21.3		6.01		TAS		6.2	0.78	m_e mb	4.8

Event 312002 Tonga Islands



./bul2003.txt

Tue Jan 04 10:11:49 2022

17

Date	Time	Err	RMS	Latitude	Longitude	Smaj	Smin	Az	Depth	Err	Ndef	Nsta	Gap	mdist	Mdist	Qual	Author
2020/03/12	12:50:35.93			-19.2720	-173.0300				33.0			14		145.21	151.46	m i ke	BGR
312008																	

Magnitude	Err	Nsta	Author	OrigID
-----------	-----	------	--------	--------

Sta	Dist	EvAz	Phase	Time	TRes	Azim	AzRes	Slow	SRes	Def	SNR	Amp	Per	Qual	Magnitude
ASSE	146.99		PKPbc	13:10:15.317	-0.2	7.9		2.63		TAS				m_e	
BRG	147.90		PKPbc	13:10:17.977		7.9		2.63		TAS				m_e	
BSEG	145.21		PKPbc	13:10:10.946	-0.2	7.9		2.63		TAS				m_e	
BUG	147.81		PKPbc	13:10:18.142	-0.2	7.9		2.63		TAS				m_e	
CLL	147.59		PKPbc	13:10:17.063	-0.2	7.9		2.63		TAS				m_e	
CLZ	147.29		PKPbc	13:10:16.397	-0.2	7.9		2.63		TAS				m_e	
FLT1	146.75		PKPbc	13:10:14.711	0.0	7.9		2.63		TAS				m_e	
FUR	150.88		PKPbc	13:10:25.919		7.9		2.63		TAS				m_e	
GEC2	149.91		PKPbc	13:10:23.266		7.9		2.63		TAS				m_e	
GRA1	149.37		PKPbc	13:10:21.343		7.9		2.63		TAS				m_e	
GTTG	147.62		PKPbc	13:10:17.524	-0.2	7.9		2.63		TAS				m_e	
IBBN	146.93		PKPbc	13:10:15.694	-0.2	7.9		2.63		TAS				m_e	
KAST	148.02		PKPbc	13:10:18.374		7.9		2.63		TAS				m_e	
MANZ	148.99		PKPbc	13:10:21.078		7.9		2.63		TAS				m_e	
MOX	148.39		PKPbc	13:10:19.287	0.1	7.9		2.63		TAS				m_e	
NEUB	147.83		PKPbc	13:10:17.636		7.9		2.63		TAS				m_e	
RJOB	151.12		PKPbc	13:10:26.649		7.9		2.63		TAS				m_e	
ROTZ	149.20		PKPbc	13:10:21.382		7.9		2.63		TAS				m_e	
RUE	146.35		PKPbc	13:10:13.925	-0.2	7.9		2.63		TAS				m_e	
STU	150.42		PKPbc	13:10:24.491		7.9		2.63		TAS				m_e	
TANN	148.53		PKPbc	13:10:19.751	-0.0	7.9		2.63		TAS				m_e	
TNS	149.00		PKPbc	13:10:21.011		7.9		2.63		TAS				m_e	
UBR	151.46		PKPbc	13:10:27.379		7.9		2.63		TAS				m_e	
WET	149.73		PKPbc	13:10:22.669		7.9		2.63		TAS				m_e	
WLF	149.58		PKPbc	13:10:23.134		7.9		2.63		TAS				m_e	

Event 312003 Sea of Japan

Date	Time	Err	RMS	Latitude	Longitude	Smaj	Smin	Az	Depth	Err	Ndef	Nsta	Gap	mdist	Mdist	Qual	Author
2020/03/12	17:19:02.40			39.1810	135.5250				33.0			13		75.87	80.98	m i ke	BGR
312009																	

Magnitude	Err	Nsta	Author	OrigID
mb	5.0		BGR	312009

Sta	Dist	EvAz	Phase	Time	TRes	Azim	AzRes	Slow	SRes	Def	SNR	Amp	Per	Qual	Magnitude
BFO	80.98		P	17:31:13.183		40.8		5.51		TAS		27.8	0.87	m_e mb	5.3
BRG	76.68		P	17:30:49.306	0.2	40.8		5.51		TAS		11.0	0.79	m_e mb	5.0

./bul2003.txt Tue Jan 04 10:11:49 2022 18

BSEG	75.87	P	17:30:44.747	-0.5	40.8	5.51	TAS	6.6	0.76	m_e	mb	4.8
BUG	78.97	P	17:31:01.879	0.3	40.8	5.51	TAS	13.8	0.93	m_e	mb	5.0
CLL	76.76	P	17:30:49.631	0.3	40.8	5.51	TAS	28.7	0.81	m_e	mb	5.5
CLZ	77.44	P	17:30:53.075	0.3	40.8	5.51	TAS	22.0	1.14	m_e	mb	5.2
FLT1	76.72	P	17:30:49.306	0.3	40.8	5.51	TAS	12.5	0.88	m_e	mb	5.0
FUR	79.86	P	17:31:06.703		40.8	5.51	TAS	39.4	0.92	m_e	mb	5.3
GEC2	78.28	P	17:30:58.043		40.8	5.51	TAS	9.2	0.89	m_e	mb	4.9
GRA1	78.72	P	17:31:00.755		40.8	5.51	TAS	35.8	0.89	m_e	mb	5.4
GTTG	77.83	P	17:30:55.459	0.3	40.8	5.51	TAS	43.4	1.25	m_e	mb	5.4
IBBN	78.11	P	17:30:56.872	-0.5	40.8	5.51	TAS	25.2	0.79	m_e	mb	5.4
KAST	78.71	P	17:31:00.631	-0.0	40.8	5.51	TAS	10.6	0.89	m_e	mb	4.9
MANZ	78.12	P	17:30:57.249		40.8	5.51	TAS	3.0	0.87	m_e	mb	4.4
MOX	77.83	P	17:30:55.505	-0.0	40.8	5.51	TAS	9.3	0.98	m_e	mb	4.9
NEUB	77.36	P	17:30:52.946	-0.0	40.8	5.51	TAS	19.9	0.81	m_e	mb	5.3
ROTZ	78.24	P	17:30:57.548		40.8	5.51	TAS	2.5	0.91	m_e	mb	4.3
STU	80.28	P	17:31:09.417		40.8	5.51	TAS	50.6	0.87	m_e	mb	5.5
TANN	77.65	P	17:30:54.745	-0.1	40.8	5.51	TAS	7.7	1.01	m_e	mb	4.8
TNS	79.46	P	17:31:04.631		40.8	5.51	TAS	11.5	0.84	m_e	mb	4.8
UBBA	78.37	P	17:30:58.455	-0.0	40.8	5.51	TAS	4.9	0.74	m_e	mb	4.7
UBR	80.73	P	17:31:11.623		40.8	5.51	TAS	8.9	0.99	m_e	mb	4.8
WET	78.42	P	17:30:58.913		40.8	5.51	TAS	14.6	1.01	m_e	mb	5.0
WLF	80.82	P	17:31:12.230		40.8	5.51	TAS	10.1	0.82	m_e	mb	4.9

Event 314002 Fiji Islands region

Date	Time	Err	RMS	Latitude	Longitude	Smaj	Smin	Az	Depth	Err	Ndef	Nsta	Gap	mdist	Mdist	Qual	Author
2020/03/14	07:18:27.82			-18.8650	-176.4400				33.0			17		144.52	150.68	m i ke	BGR
314008																	

Magnitude Err Nsta Author OrigID

Sta	Dist	EvAz	Phase	Time	TRes	Azim	AzRes	Slow	SRes	Def	SNR	Amp	Per	Qual	Magnitude
ASSE	146.25		PKPbc	07:38:05.624	0.2	14.0		2.72		TAS				m_e	
BFO	150.26		PKPbc	07:38:16.329		14.0		2.72		TAS				m_e	
BRG	146.93		PKPbc	07:38:07.495	0.4	14.0		2.72		TAS				m_e	
BSEG	144.52		PKPbc	07:38:00.159	-0.9	14.0		2.72		TAS				m_e	
CLL	146.69		PKPbc	07:38:06.747	0.1	14.0		2.72		TAS				m_e	
CLZ	146.57		PKPbc	07:38:07.046	0.1	14.0		2.72		TAS				m_e	
FLT1	145.98		PKPbc	07:38:04.576	-0.1	14.0		2.72		TAS				m_e	
GEC2	148.91		PKPbc	07:38:12.811		14.0		2.72		TAS				m_e	
GTTG	146.91		PKPbc	07:38:07.720	-0.1	14.0		2.72		TAS				m_e	
KAST	147.41		PKPbc	07:38:09.217	0.2	14.0		2.72		TAS				m_e	
MANZ	148.12		PKPbc	07:38:11.089		14.0		2.72		TAS				m_e	
MOX	147.56		PKPbc	07:38:09.292	-0.1	14.0		2.72		TAS				m_e	
NEUB	147.00		PKPbc	07:38:07.795	0.5	14.0		2.72		TAS				m_e	
PLN	147.63		PKPbc	07:38:09.592	-0.3	14.0		2.72		TAS				m_e	

./bul2003.txt

Tue Jan 04 10:11:49 2022

19

ROTZ	148.31	PKPbc	07:38:11.538	14.0	2.72	TAS	m_e
TNS	148.38	PKPbc	07:38:12.062	14.0	2.72	TAS	m_e
UBR	150.68	PKPbc	07:38:16.928	14.0	2.72	TAS	m_e

Event 314003 Fiji Islands region

Date	Time	Err	RMS	Latitude	Longitude	Smaj	Smin	Az	Depth	Err	Ndef	Nsta	Gap	mdist	Mdist	Qual	Author
OrigID																	
2020/03/14	10:01:57.60			-18.4900	-176.6400				10.0			15		144.93	149.87	m i ke	BGR
314009																	

Magnitude	Err	Nsta	Author	OrigID
Ms	6.7		BGR	314009

Sta	Dist	EvAz	Phase	Time	TRes	Azim	AzRes	Slow	SRes	Def	SNR	Amp	Per	Qual	Magnitude
BFO	149.87		PKPbc	10:21:51.219		14.3		4.32		TAS				m_e	
BRG	146.53		PKPbc	10:21:36.289		14.3		4.32		TAS				m_e	
CLL	146.29		PKPbc	10:21:35.372	-0.1	14.3		4.32		TAS				m_e	
CLZ	146.17		PKPbc	10:21:35.672	0.3	14.3		4.32		TAS				m_e	
FUR	149.62		PKPbc	10:21:50.400		14.3		4.32		TAS				m_e	
GEC2	148.50		PKPbc	10:21:45.412		14.3		4.32		TAS				m_e	
GOR1	144.93		PKPbc	10:21:30.291	-0.3	14.3		4.32		TAS				m_e	
GRA1	148.15		PKPbc	10:21:44.020		14.3		4.32		TAS				m_e	
GRA1	148.15		L	11:39:08.160						T__		10645.5	18.00	a_e Ms	6.7
IBBN	145.99		PKPbc	10:21:34.705	-0.1	14.3		4.32		TAS				m_e	
MOX	147.16		L	11:38:27.163						T__		11552.3	18.30	a_e Ms	6.7
PLN	147.23		PKPbc	10:21:39.667		14.3		4.32		TAS				m_e	
RJOB	149.74		PKPbc	10:21:50.992		14.3		4.32		TAS				m_e	
ROTZ	147.91		PKPbc	10:21:42.714		14.3		4.32		TAS				m_e	
TNS	147.99		PKPbc	10:21:43.219		14.3		4.32		TAS				m_e	
WET	148.38		PKPbc	10:21:44.718		14.3		4.32		TAS				m_e	
WLF	148.72		PKPbc	10:21:46.692		14.3		4.32		TAS				m_e	

Event 314004 Fiji Islands region

Date	Time	Err	RMS	Latitude	Longitude	Smaj	Smin	Az	Depth	Err	Ndef	Nsta	Gap	mdist	Mdist	Qual	Author
OrigID																	
2020/03/14	23:14:04.94			-20.9310	-178.3820				33.0			13		148.32	152.36	m i ke	BGR
314010																	

Magnitude	Err	Nsta	Author	OrigID
-----------	-----	------	--------	--------

Sta	Dist	EvAz	Phase	Time	TRes	Azim	AzRes	Slow	SRes	Def	SNR	Amp	Per	Qual	Magnitude
BFO	152.05		PKPbc	23:33:57.349		18.3		2.54		TAS				m_e	
BRG	148.51		PKPbc	23:33:48.451	0.1	18.3		2.54		TAS				m_e	

./bul2003.txt Tue Jan 04 10:11:49 2022 20

CLL	148.32	PKPbc	23:33:47.744	-0.3	18.3	2.54	TAS	m_e
GEC2	150.44	PKPbc	23:33:53.691	-0.1	18.3	2.54	TAS	m_e
MANZ	149.76	PKPbc	23:33:51.944	0.1	18.3	2.54	TAS	m_e
NEUB	148.68	PKPbc	23:33:48.825	-0.1	18.3	2.54	TAS	m_e
PLN	149.28	PKPbc	23:33:50.530	0.2	18.3	2.54	TAS	m_e
RJOB	151.70	PKPbc	23:33:56.615		18.3	2.54	TAS	m_e
ROTZ	149.94	PKPbc	23:33:52.402	-0.2	18.3	2.54	TAS	m_e
STU	151.48	PKPbc	23:33:56.186		18.3	2.54	TAS	m_e
TANN	149.28	PKPbc	23:33:50.613	0.1	18.3	2.54	TAS	m_e
UBR	152.36	PKPbc	23:33:58.165		18.3	2.54	TAS	m_e
WLF	151.01	PKPbc	23:33:55.438	-0.1	18.3	2.54	TAS	m_e

Event 315002 Southern Iran

Date	Time	Err	RMS	Latitude	Longitude	Smaj	Smin	Az	Depth	Err	Ndef	Nsta	Gap	mdist	Mdist	Qual	Author
2020/03/15	22:04:38.12			27.4870	53.5940				33.0			17		37.56	42.08	m i ke	BGR
315008																	

Magnitude	Err	Nsta	Author	OrigID
mb	5.6		BGR	315008
Ms	5.0		BGR	315008

Sta	Dist	EvAz	Phase	Time	TRes	Azim	AzRes	Slow	SRes	Def	SNR	Amp	Per	Qual	Magnitude
ASSE	40.30		P	22:12:11.890	0.0	108.6		8.35		TAS		131.0	1.03	m_e	mb 5.5
BRG	37.94		P	22:11:51.997	0.2	108.6		8.35		TAS		105.6	0.99	m_e	mb 5.5
BUG	42.08		P	22:12:26.996	-0.3	108.6		8.35		TAS		241.6	1.05	m_e	mb 5.9
CLL	38.65		P	22:11:58.103	-0.1	108.6		8.35		TAS		171.9	1.12	m_e	mb 5.6
CLZ	40.37		P	22:12:12.972	-0.1	108.6		8.35		TAS		290.8	0.97	m_e	mb 5.9
FLT1	40.05		P	22:12:09.738	-0.1	108.6		8.35		TAS		364.4	1.07	m_e	mb 5.9
FUR	38.66		P	22:11:58.275		108.6		8.35		TAS		251.9	1.39	m_e	mb 5.7
GOR1	40.26		P	22:12:11.288	0.0	108.6		8.35		TAS		279.6	1.20	m_e	mb 5.8
GRA1	39.16		P	22:12:02.648		108.6		8.35		TAS		169.3	1.08	m_e	mb 5.6
GRA1	39.16		L	22:32:36.057						T__		1962.9	18.40	a_e	Ms 5.0
GTTG	40.51		P	22:12:13.950	-0.3	108.6		8.35		TAS		158.3	1.14	m_e	mb 5.6
KAST	41.33		P	22:12:20.810	-0.1	108.6		8.35		TAS		185.2	1.24	m_e	mb 5.7
MOX	39.23		L	22:30:45.265						T__		1861.5	19.60	a_e	Ms 4.9
NEUB	39.33		P	22:12:03.849	-0.1	108.6		8.35		TAS		114.8	0.91	m_e	mb 5.5
RJOB	37.56		P	22:11:49.261		108.6		8.35		TAS		52.1	0.85	m_e	mb 5.3
ROTZ	38.58		P	22:11:57.795		108.6		8.35		TAS		24.2	1.06	m_e	mb 4.8
RUE	38.67		P	22:11:57.885	0.1	108.6		8.35		TAS		183.7	1.02	m_e	mb 5.7
TNS	41.02		P	22:12:17.978		108.6		8.35		TAS		108.4	1.14	m_e	mb 5.5
UBR	39.28		P	22:12:03.557		108.6		8.35		TAS		179.9	0.98	m_e	mb 5.7

./bul2003.txt Tue Jan 04 10:11:49 2022 21

Event 316003 Reykjanes Ridge  
Date Time Err RMS Latitude Longitude Smaj Smin Az Depth Err Ndef Nsta Gap mdist Mdist Qual Author  
OrigID  
2020/03/16 06:33:18.31 59.4720 -29.0390 33.0 5 21.59 25.56 m i ke BGR  
316009

Magnitude Err Nsta Author OrigID  
mb 4.8 BGR 316009

Sta	Dist	EvAz	Phase	Time	TRes	Azim	AzRes	Slow	SRes	Def	SNR	Amp	Per	Qual	Magnitude
BRG	25.56		P	06:38:43.892	-0.0	306.9		9.01		TAS		14.7	1.57	m_e mb	4.4
BSEG	22.02		P	06:38:10.102	-0.2	306.9		9.01		TAS		45.5	1.46	m_e mb	4.7
CLZ	23.18		P	06:38:21.954	0.2	306.9		9.01		TAS		71.9	1.60	m_e mb	5.0
FLT1	23.35		P	06:38:22.730		306.9		9.01		TAS		55.0	1.39	m_e mb	4.9
GRA1	24.90		P	06:38:37.904	0.2	306.9		9.01		TAS		24.4	1.37	m_e mb	4.8
IBBN	21.59		P	06:38:05.057		306.9		9.01		TAS		41.7	1.13	m_e mb	4.8
RETH	22.17		P	06:38:11.684		306.9		9.01		TAS		141.9	1.88	m_e mb	5.1

Event 317005 Northwest of Kuril Islands, Russia  
Date Time Err RMS Latitude Longitude Smaj Smin Az Depth Err Ndef Nsta Gap mdist Mdist Qual Author  
OrigID  
2020/03/17 14:24:03.18 50.9000 152.5900 33.0 15 71.97 76.38 m i ke BGR  
317011

Magnitude Err Nsta Author OrigID  
mb 5.1 BGR 317011

Sta	Dist	EvAz	Phase	Time	TRes	Azim	AzRes	Slow	SRes	Def	SNR	Amp	Per	Qual	Magnitude
ASSE	72.30		P	14:35:26.212	0.2	24.1		5.84		TAS		899.6	4.83	m_e mb	6.2
BFO	76.38		P	14:35:49.357		24.1		5.84		TAS		30.5	1.29	m_e mb	5.3
BRG	72.57		P	14:35:27.352	0.2	24.1		5.84		TAS		18.3	1.18	m_e mb	5.1
CLL	72.44		P	14:35:26.650	0.0	24.1		5.84		TAS		32.8	1.04	m_e mb	5.4
CLZ	72.63		P	14:35:28.491	-0.4	24.1		5.84		TAS		29.9	1.12	m_e mb	5.3
FLT1	71.97		P	14:35:23.757	-0.3	24.1		5.84		TAS		27.6	1.20	m_e mb	5.3
GEC2	74.47		P	14:35:38.661		24.1		5.84		TAS		19.4	1.30	m_e mb	5.0
GRA1	74.38		P	14:35:38.837		24.1		5.84		TAS		28.4	0.74	m_e mb	5.4
KAST	73.71		P	14:35:34.453	-0.1	24.1		5.84		TAS		16.0	0.99	m_e mb	5.0
MOX	73.41		P	14:35:32.612	0.2	24.1		5.84		TAS		12.5	0.82	m_e mb	5.0
PLN	73.41		P	14:35:32.524	-0.1	24.1		5.84		TAS		9.4	1.31	m_e mb	4.7
RJOB	75.73		P	14:35:46.289		24.1		5.84		TAS		11.2	0.96	m_e mb	5.0
ROTZ	74.05		P	14:35:36.557		24.1		5.84		TAS		7.6	1.27	m_e mb	4.6
TANN	73.39		P	14:35:32.612	-0.6	24.1		5.84		TAS		17.6	1.45	m_e mb	4.9
WET	74.43		P	14:35:38.749		24.1		5.84		TAS		18.7	0.80	m_e mb	5.2

Event 317006 Samoa Islands region

Date	Time	Err	RMS	Latitude	Longitude	Smaj	Smin	Az	Depth	Err	Ndef	Nsta	Gap	mdist	Mdist	Qual	Author
2020/03/17	16:06:27.05			-15.7950	-172.0290				33.0			9		144.58	147.46	m i ke	BGR
OrigID 317012																	

Magnitude	Err	Nsta	Author	OrigID
Ms 6.0			BGR	317012

Sta	Dist	EvAz	Phase	Time	TRes	Azim	AzRes	Slow	SRes	Def	SNR	Amp	Per	Qual	Magnitude
BFO	147.46		PKPbc	16:26:07.616		5.6		3.10		TAS				m_e	
GEC2	146.61		PKPbc	16:26:05.154		5.6		3.10		TAS				m_e	
GRA1	145.99		L	17:28:21.753						T__		2657.1	21.60	a_e Ms	6.0
KAST	144.58		PKPbc	16:25:58.677		5.6		3.10		TAS				m_e	
MANZ	145.64		PKPbc	16:26:02.316		5.6		3.10		TAS				m_e	
MOX	145.02		PKPbc	16:26:00.076		5.6		3.10		TAS				m_e	
MOX	145.02		L	17:39:41.077						T__		2407.8	18.60	a_e Ms	6.0
ROTZ	145.85		PKPbc	16:26:03.163		5.6		3.10		TAS				m_e	
TANN	145.18		PKPbc	16:26:00.697		5.6		3.10		TAS				m_e	
TNS	145.56		PKPbc	16:26:02.148		5.6		3.10		TAS				m_e	
WLF	146.09		PKPbc	16:26:04.268		5.6		3.10		TAS				m_e	

Event 318002 Southeast of Loyalty Islands

Date	Time	Err	RMS	Latitude	Longitude	Smaj	Smin	Az	Depth	Err	Ndef	Nsta	Gap	mdist	Mdist	Qual	Author
2020/03/18	03:16:27.33			-21.0310	172.0210				33.0			17		144.25	149.61	m i ke	BGR
OrigID 318008																	

Magnitude	Err	Nsta	Author	OrigID

Sta	Dist	EvAz	Phase	Time	TRes	Azim	AzRes	Slow	SRes	Def	SNR	Amp	Per	Qual	Magnitude
BRG	145.56		PKPbc	03:36:02.256	0.1	34.9		2.84		TAS				m_e	
BSEG	144.25		PKPbc	03:35:58.694	-0.3	34.9		2.84		TAS				m_e	
CLL	145.56		PKPbc	03:36:02.454	0.1	34.9		2.84		TAS				m_e	
CLZ	146.03		PKPbc	03:36:04.334	-0.3	34.9		2.84		TAS				m_e	
FLT1	145.33		PKPbc	03:36:01.663	-0.0	34.9		2.84		TAS				m_e	
GEC2	147.24		PKPbc	03:36:07.303		34.9		2.84		TAS				m_e	
GOR1	144.75		PKPbc	03:36:00.277	-0.0	34.9		2.84		TAS				m_e	
GTTG	146.41		PKPbc	03:36:05.522	-0.1	34.9		2.84		TAS				m_e	
MANZ	146.97		PKPbc	03:36:06.610		34.9		2.84		TAS				m_e	
MOX	146.61		PKPbc	03:36:05.324	0.2	34.9		2.84		TAS				m_e	
PLN	146.54		PKPbc	03:36:05.225	-0.5	34.9		2.84		TAS				m_e	
ROTZ	147.11		PKPbc	03:36:07.105		34.9		2.84		TAS				m_e	
STU	149.04		PKPbc	03:36:12.548		34.9		2.84		TAS				m_e	
TANN	146.49		PKPbc	03:36:05.225		34.9		2.84		TAS				m_e	

./bul2003.txt Tue Jan 04 10:11:49 2022 23

UBBA	147.02	PKPbc	03:36:06.412	-0.0	34.9	2.84	TAS	m_e
UBR	149.61	PKPbc	03:36:13.438		34.9	2.84	TAS	m_e
WET	147.34	PKPbc	03:36:07.699		34.9	2.84	TAS	m_e

Event 318005 Utah, United States

Date	Time	Err	RMS	Latitude	Longitude	Smaj	Smin	Az	Depth	Err	Ndef	Nsta	Gap	mdist	Mdist	Qual	Author
OrigID																	
2020/03/18	13:09:42.60			41.7700	-111.9050				13.7	0.4		26		72.49	78.24	m i ke	BGR
318011																	

Magnitude	Err	Nsta	Author	OrigID
mb	5.8		BGR	318011
Ms	5.6		BGR	318011

Sta	Dist	EvAz	Phase	Time	TRes	Azim	AzRes	Slow	SRes	Def	SNR	Amp	Per	Qual	Magnitude
ASSE	73.99		P	13:21:13.869	-0.0	319.9		5.71		TAS		301.3	1.70	m_e mb	6.0
BFO	75.85		P	13:21:23.950		319.9		5.71		TAS		79.2	1.26	m_e mb	5.7
BFO	75.85		pP	13:21:27.985						T__				m_e	
BRG	76.26		P	13:21:26.922	0.2	319.9		5.71		TAS		124.0	1.49	m_e mb	5.8
BSEG	72.49		P	13:21:05.273	-0.1	319.9		5.71		TAS		103.0	1.04	m_e mb	5.9
BUG	73.09		P	13:21:08.669	-0.3	319.9		5.71		TAS		157.2	1.12	m_e mb	6.0
CLL	75.55		P	13:21:22.783	0.1	319.9		5.71		TAS		81.6	1.01	m_e mb	5.8
CLZ	74.08		P	13:21:14.930	-0.4	319.9		5.71		TAS		140.7	1.01	m_e mb	5.9
FLT1	74.06		P	13:21:13.975	-0.1	319.9		5.71		TAS		112.9	1.24	m_e mb	5.8
FUR	77.26		P	13:21:33.077		319.9		5.71		TAS				m_e	
GEC2	77.75		P	13:21:35.093		319.9		5.71		TAS		88.7	1.22	m_e mb	5.8
GEC2	77.75		pP	13:21:39.106						T__				m_e	
GRA1	76.07		P	13:21:26.073	-0.2	319.9		5.71		TAS		188.2	1.28	m_e mb	6.1
GRA1	76.07		L	13:53:57.842						T__		3925.5	20.40	a_e Ms	5.7
GTTG	74.14		P	13:21:14.930	0.1	319.9		5.71		TAS		175.6	1.80	m_e mb	5.8
IBBN	72.66		P	13:21:06.228	0.1	319.9		5.71		TAS		179.9	0.92	m_e mb	6.2
KAST	73.75		P	13:21:12.171	0.1	319.9		5.71		TAS		61.0	1.15	m_e mb	5.5
MANZ	76.21		P	13:21:26.603	-0.3	319.9		5.71		TAS		25.5	1.26	m_e mb	5.2
MOX	75.50		P	13:21:22.677	0.1	319.9		5.71		TAS		212.5	1.49	m_e mb	6.0
MOX	75.50		pP	13:21:26.494						T__				m_e	
MOX	75.50		L	13:54:14.201						T__		2490.9	20.90	a_e Ms	5.5
PLN	75.85		P	13:21:24.587	0.2	319.9		5.71		TAS		26.6	1.05	m_e mb	5.3
RETH	73.00		P	13:21:08.351	-0.0	319.9		5.71		TAS		216.2	1.21	m_e mb	6.2
RJOB	78.24		P	13:21:37.958		319.9		5.71		TAS		78.1	1.34	m_e mb	5.7
ROTZ	76.42		P	13:21:27.877	-0.5	319.9		5.71		TAS		34.6	1.35	m_e mb	5.3
ROTZ	76.42		pP	13:21:31.750						T__				m_e	
TANN	76.02		P	13:21:25.754	0.3	319.9		5.71		TAS		90.7	1.17	m_e mb	5.8
TNS	74.49		P	13:21:16.946	-0.3	319.9		5.71		TAS		95.3	1.25	m_e mb	5.7
UBBA	74.70		P	13:21:17.689	0.0	319.9		5.71		TAS		119.0	1.43	m_e mb	5.7
UBR	77.13		P	13:21:32.121		319.9		5.71		TAS		136.2	1.20	m_e mb	6.0
WET	77.18		P	13:21:31.803	0.3	319.9		5.71		TAS		83.6	1.30	m_e mb	5.7

./bul2003.txt

Tue Jan 04 10:11:49 2022

24

WLF 73.90 P 13:21:13.551 0.5 319.9 5.71 TAS 110.9 1.04 m\_e mb 5.8

Event 319001 Turkey

Date	Time	Err	RMS	Latitude	Longitude	Smaj	Smin	Az	Depth	Err	Ndef	Nsta	Gap	mdist	Mdist	Qual	Author
2020/03/19	17:53:32.11			38.2630	39.8290				33.0			16		21.58	26.55	m i ke	BGR
OrigID 319007																	

Magnitude	Err	Nsta	Author	OrigID
mb	4.7		BGR	319007
Ms	4.3		BGR	319007

Sta	Dist	EvAz	Phase	Time	TRes	Azim	AzRes	Slow	SRes	Def	SNR	Amp	Per	Qual	Magnitude
BFO	24.87		P	17:58:52.656		108.4		9.87		TAS		25.0	1.18	m_e mb	4.8
BRG	22.19		P	17:58:24.842	-0.2	108.4		9.87		TAS		35.9	1.73	m_e mb	4.5
FUR	22.91		P	17:58:34.144	-0.0	108.4		9.87		TAS		48.9	0.90	m_e mb	5.0
GEC2	21.58		P	17:58:18.034	-1.4	108.4		9.87		TAS		23.7	0.99	m_e mb	4.6
GRA1	23.39		P	17:58:37.963	1.4	108.4		9.87		TAS		60.9	0.98	m_e mb	5.1
GRA1	23.39		L	18:09:08.889						T__		797.7	18.30	a_e Ms	4.2
KAST	25.56		P	17:58:58.551		108.4		9.87		TAS		83.7	1.65	m_e mb	5.1
MANZ	22.94		P	17:58:34.241	0.6	108.4		9.87		TAS		5.0	0.96	m_e mb	4.0
MOX	23.47		P	17:58:37.991	-0.8	108.4		9.87		TAS		17.9	1.11	m_e mb	4.5
MOX	23.47		L	18:09:39.389						T__		1423.1	18.70	a_e Ms	4.5
RETH	25.54		P	17:58:58.515		108.4		9.87		TAS		55.3	1.84	m_e mb	4.9
RJOB	21.82		P	17:58:20.679	-0.7	108.4		9.87		TAS		16.1	0.95	m_e mb	4.4
ROTZ	22.81		P	17:58:32.277	0.6	108.4		9.87		TAS		11.3	1.00	m_e mb	4.3
TANN	22.88		P	17:58:32.066	1.3	108.4		9.87		TAS		35.3	1.18	m_e mb	4.8
TNS	25.25		P	17:58:55.029		108.4		9.87		TAS		36.1	1.39	m_e mb	4.9
UBR	23.56		P	17:58:38.590	-0.2	108.4		9.87		TAS		29.2	1.11	m_e mb	4.7
WET	22.19		P	17:58:23.771	-1.7	108.4		9.87		TAS		19.1	1.09	m_e mb	4.5
WLF	26.55		P	17:59:06.514		108.4		9.87		TAS		21.6	1.14	m_e mb	4.8

Event 320001 Xizang

Date	Time	Err	RMS	Latitude	Longitude	Smaj	Smin	Az	Depth	Err	Ndef	Nsta	Gap	mdist	Mdist	Qual	Author
2020/03/20	01:33:18.86			28.1650	86.6930				26.3	1.9		17		57.96	63.15	m i ke	BGR
OrigID 320007																	

Magnitude	Err	Nsta	Author	OrigID
mb	5.9		BGR	320007
MBB	6.2		BGR	320007
Ms	5.4		BGR	320007



./bul2003.txt

Tue Jan 04 10:11:49 2022

25

Sta	Dist	EvAz	Phase	Time	TRes	Azim	AzRes	Slow	SRes	Def	SNR	Amp	Per	Qual	Magnitude
ASSE	59.89		P	01:43:20.921	0.2	80.7		6.78		TAS		289.9	2.01	m_e	MBB 6.2
ASSE	59.89		pP	01:43:28.617	-0.1	80.9		6.90		TAS				m_e	
BFO	62.04		P	01:43:35.851	0.5	80.7		6.78		TAS		285.8	2.35	m_e	mb 6.1
BRG	58.03		P	01:43:08.829	-0.3	80.7		6.78		TAS		203.9	1.62	m_e	MBB 6.1
BSEG	59.86		P	01:43:21.528	-0.0	80.7		6.78		TAS		139.9	1.39	m_e	MBB 6.1
BSEG	59.86		pP	01:43:28.759	-0.3	80.9		6.90		TAS				m_e	
BUG	62.09		P	01:43:36.429	-0.8	80.7		6.78		TAS		458.4	2.04	m_e	mb 6.3
CLL	58.56		P	01:43:11.969	-0.1	80.7		6.78		TAS		169.7	1.64	m_e	MBB 6.2
CLL	58.56		pP	01:43:19.481	0.1	80.9		6.90		TAS				m_e	
CLZ	60.12		P	01:43:23.346	0.0	80.7		6.78		TAS		140.0	1.15	m_e	MBB 6.3
FLT1	59.52		P	01:43:18.460	-0.7	80.7		6.78		TAS		149.7	1.35	m_e	MBB 6.2
FUR	60.13		P	01:43:23.926	-0.1	80.7		6.78		TAS		233.6	1.26	m_e	MBB 6.5
FUR	60.13		pP	01:43:30.863		80.9		6.90		TAS				m_e	
GEC2	58.44		P	01:43:12.080	0.2	80.7		6.78		TAS		105.7	1.24	m_e	MBB 6.2
GEC2	58.44		pP	01:43:19.296		80.9		6.90		TAS				m_e	
GOR1	59.39		P	01:43:18.009	0.1	80.7		6.78		TAS		217.3	1.27	m_e	MBB 6.4
GRA1	59.92		P	01:43:22.534	0.2	80.7		6.78		TAS		144.3	1.32	m_e	mb 5.8
GRA1	59.92		pP	01:43:29.405		80.9		6.90		TAS				m_e	
GRA1	59.92		L	02:11:43.160						T__		2960.9	20.90	a_e	Ms 5.4
GTTG	60.41		P	01:43:25.218	-0.1	80.7		6.78		TAS		152.3	1.27	m_e	MBB 6.2
IBBN	61.63		P	01:43:33.440	-0.6	80.7		6.78		TAS		219.1	1.46	m_e	mb 6.2
KAST	61.43		P	01:43:31.965	0.0	80.7		6.78		TAS		169.4	1.87	m_e	mb 5.6
KAST	61.43		pP	01:43:39.604	0.2	80.9		6.90		TAS				m_e	
MANZ	59.30		P	01:43:18.213	0.4	80.7		6.78		TAS		60.4	1.67	m_e	MBB 5.7
MANZ	59.30		pP	01:43:25.667		80.9		6.90		TAS				m_e	
MOX	59.52		P	01:43:19.198	-0.1	80.7		6.78		TAS		309.9	1.90	m_e	MBB 6.2
MOX	59.52		pP	01:43:26.410		80.9		6.90		TAS				m_e	
MOX	59.52		L	02:11:15.186						T__		3597.2	22.00	a_e	Ms 5.5
NEUB	59.34		P	01:43:18.027	-0.3	80.7		6.78		TAS		266.5	1.65	m_e	MBB 6.3
NEUB	59.34		pP	01:43:24.979	0.1	80.9		6.90		TAS				m_e	
PLN	59.20		P	01:43:17.039	-0.0	80.7		6.78		TAS		79.8	1.83	m_e	MBB 5.7
PLN	59.20		pP	01:43:24.211		80.9		6.90		TAS				m_e	
RETH	60.59		P	01:43:26.262	-0.2	80.7		6.78		TAS		194.1	1.70	m_e	MBB 6.0
RETH	60.59		pP	01:43:33.612	-0.0	80.9		6.90		TAS				m_e	
RGN	58.04		P	01:43:08.939	0.5	80.7		6.78		TAS		304.4	1.09	m_e	MBB 6.6
RJOB	59.20		P	01:43:16.940	-0.4	80.7		6.78		TAS		466.1	2.30	m_e	MBB 6.2
ROTZ	59.27		P	01:43:17.986	0.3	80.7		6.78		TAS		75.2	1.75	m_e	MBB 5.7
ROTZ	59.27		pP	01:43:25.343		80.9		6.90		TAS				m_e	
RUE	57.96		P	01:43:08.198	0.1	80.7		6.78		TAS		199.5	1.25	m_e	MBB 6.4
STU	61.38		P	01:43:32.130	-0.5	80.7		6.78		TAS		759.2	1.71	m_e	mb 6.2
STU	61.38		pP	01:43:39.551		80.9		6.90		TAS				m_e	
TANN	59.02		P	01:43:15.865	-0.1	80.7		6.78		TAS		138.9	1.52	m_e	MBB 6.2
TANN	59.02		pP	01:43:22.704		80.9		6.90		TAS				m_e	
TNS	61.59		P	01:43:33.229	0.4	80.7		6.78		TAS		169.6	1.56	m_e	mb 6.0
UBBA	60.51		P	01:43:25.618	-0.1	80.7		6.78		TAS		157.8	1.85	m_e	MBB 5.9
UBBA	60.51		pP	01:43:33.473	-0.4	80.9		6.90		TAS				m_e	
UBR	61.00		P	01:43:28.832		80.7		6.78		TAS		3746.4	4.68	m_e	MBB 6.1
UBR	61.00		pP	01:43:36.235		80.9		6.90		TAS				m_e	

./bul2003.txt

Tue Jan 04 10:11:49 2022

26

WET	58.93	P	01:43:15.522	0.2	80.7	6.78	TAS	390.3	2.08	m_e	MBB	6.2
WLF	63.15	P	01:43:44.191	0.6	80.7	6.78	TAS	775.8	2.07	m_e	mb	6.5

Event 320002 South of Kermadec Islands

Date	Time	Err	RMS	Latitude	Longitude	Smaj	Smin	Az	Depth	Err	Ndef	Nsta	Gap	mdist	Mdist	Qual	Author
OrigID																	
2020/03/20	01:36:10.50			-34.2400	-179.0300				10.0					162.75	162.75	m i ke	NEIC
320041																	

Magnitude Err Nsta Author OrigID

Sta	Dist	EvAz	Phase	Time	TRes	Azim	AzRes	Slow	SRes	Def	SNR	Amp	Per	Qual	Magnitude
GRA1	162.75		PKPab	01:57:01.168		39.2		3.98		TAS					m_e

Event 320003 Mongolia

Date	Time	Err	RMS	Latitude	Longitude	Smaj	Smin	Az	Depth	Err	Ndef	Nsta	Gap	mdist	Mdist	Qual	Author
OrigID																	
2020/03/20	03:03:15.54			45.3170	94.0640				33.0				31	50.00	56.21	m i ke	BGR
320009																	

Magnitude Err Nsta Author OrigID

mb	6.0		BGR	320009
MBB	6.1		BGR	320009
Ms	5.4		BGR	320009

Sta	Dist	EvAz	Phase	Time	TRes	Azim	AzRes	Slow	SRes	Def	SNR	Amp	Per	Qual	Magnitude
ASSE	52.50		P	03:12:23.542	0.2	60.6		7.36		TAS		174.3	1.43	m_e	MBB 6.0
BFO	55.70		P	03:12:46.799	0.6	60.6		7.36		TAS		279.1	1.76	m_e	MBB 6.0
BRG	51.27		P	03:12:14.390	-0.7	60.6		7.36		TAS		184.5	1.27	m_e	MBB 6.1
BSEG	51.85		P	03:12:19.212	0.5	60.6		7.36		TAS		126.0	1.00	m_e	MBB 6.0
BUG	54.68		P	03:12:39.870	-0.5	60.6		7.36		TAS		255.1	1.08	m_e	MBB 6.3
CLL	51.60		P	03:12:16.838	0.0	60.6		7.36		TAS		223.1	1.14	m_e	MBB 6.1
CLZ	52.80		P	03:12:26.182	0.4	60.6		7.36		TAS		183.4	1.16	m_e	MBB 6.1
FLT1	52.10		P	03:12:20.158	-0.2	60.6		7.36		TAS		192.5	1.10	m_e	MBB 6.1
FUR	54.10		P	03:12:36.271	0.8	60.6		7.36		TAS		322.8	1.29	m_e	MBB 6.4
GEC2	52.36		P	03:12:23.053	-0.3	60.6		7.36		TAS		152.7	1.48	m_e	MBB 5.9
GOR1	51.76		P	03:12:18.666	0.4	60.6		7.36		TAS		520.6	1.31	m_e	MBB 6.5
GRA1	53.37		P	03:12:30.947	0.3	60.6		7.36		TAS		426.9	1.20	m_e	mb 6.2
GRA1	53.37		L	03:35:54.888						T__		3092.7	19.40	a_e	Ms 5.4
GTTG	53.16		P	03:12:29.085	0.2	60.6		7.36		TAS		413.4	1.09	m_e	MBB 6.4
IBBN	53.98		P	03:12:34.560	-0.7	60.6		7.36		TAS		207.1	0.99	m_e	MBB 6.3
KAST	54.18		P	03:12:36.181	-0.5	60.6		7.36		TAS		81.5	1.14	m_e	MBB 5.9
MANZ	52.72		P	03:12:25.623	0.2	60.6		7.36		TAS		33.3	1.28	m_e	MBB 5.4

./bul2003.txt

Tue Jan 04 10:11:49 2022

27

MOX	52.68	P	03:12:25.166	-0.2	60.6	7.36	TAS	209.9	1.24	m_e	MBB	6.1
MOX	52.68	L	03:35:35.157				T__	4281.6	19.80	a_e	Ms	5.5
NEUB	52.34	P	03:12:22.283	-0.6	60.6	7.36	TAS	308.6	1.22	m_e	MBB	6.2
PLN	52.46	P	03:12:23.507	-0.1	60.6	7.36	TAS	64.8	1.23	m_e	MBB	5.6
RETH	52.92	P	03:12:26.997	-0.4	60.6	7.36	TAS	249.3	1.27	m_e	MBB	6.2
RGN	50.00	P	03:12:05.080	0.1	60.6	7.36	TAS	471.5	1.16	m_e	MBB	6.5
RJOB	53.43	P	03:12:31.488	0.1	60.6	7.36	TAS	123.1	1.16	m_e	MBB	6.0
ROTZ	52.77	P	03:12:26.238	-0.1	60.6	7.36	TAS	57.4	1.39	m_e	MBB	5.5
RUE	50.64	P	03:12:09.855	0.1	60.6	7.36	TAS	414.9	1.19	m_e	MBB	6.4
STU	54.98	P	03:12:41.944	-0.8	60.6	7.36	TAS	645.3	1.46	m_e	MBB	6.6
TANN	52.32	P	03:12:22.569	-0.1	60.6	7.36	TAS	202.3	1.29	m_e	MBB	6.1
TNS	54.65	P	03:12:39.687	-0.1	60.6	7.36	TAS	183.0	1.27	m_e	MBB	6.2
UBBA	53.50	P	03:12:30.623	-0.2	60.6	7.36	TAS	216.9	1.48	m_e	MBB	6.1
UBR	55.02	P	03:12:42.635		60.6	7.36	TAS	232.7	1.21	m_e	MBB	6.4
WET	52.69	P	03:12:25.655	0.2	60.6	7.36	TAS	185.4	1.34	m_e	MBB	6.1
WLF	56.21	P	03:12:51.144	0.5	60.6	7.36	TAS	362.2	1.82	m_e	MBB	6.2

Event 321001 Northwest of Madagascar

Date	Time	Err	RMS	Latitude	Longitude	Smaj	Smin	Az	Depth	Err	Ndef	Nsta	Gap	mdist	Mdist	Qual	Author
2020/03/21	06:42:32.82			-12.6540	45.0570				33.0					68.37	69.51	m i ke	BGR
OrigID 321007																	

Magnitude	Err	Nsta	Author	OrigID
mb	5.0		BGR	321007
Ms	3.9		BGR	321007

Sta	Dist	EvAz	Phase	Time	TRes	Azim	AzRes	Slow	SRes	Def	SNR	Amp	Per	Qual	Magnitude
GRA1	68.88		P	06:53:35.820		136.3		6.86		TAS		8.6	0.90	m_e	mb 5.0
GRA1	68.88		L	07:19:29.964						T__		95.3	19.80	a_e	Ms 4.0
GRB2	68.37		P	06:54:01.613		136.3		6.86		TAS				m_e	
MOX	69.51		L	07:25:27.216						T__		64.7	21.20	a_e	Ms 3.8

Event 322002 Northwestern Balkan Peninsula

Date	Time	Err	RMS	Latitude	Longitude	Smaj	Smin	Az	Depth	Err	Ndef	Nsta	Gap	mdist	Mdist	Qual	Author
2020/03/22	05:24:04.27	0.31	0.69	45.8880	16.1200	3.3	3.3	40	10.0					41	238	1.25	8.87 m i ke BGR
OrigID 322008																	

Magnitude	Err	Nsta	Author	OrigID
ML	5.5		BGR	322008

Sta	Dist	EvAz	Phase	Time	TRes	Azim	AzRes	Slow	SRes	Def	SNR	Amp	Per	Qual	Magnitude
-----	------	------	-------	------	------	------	-------	------	------	-----	-----	-----	-----	------	-----------

ARSA	1.42	Sn	05:24:47.322	0.2
ARSA	1.42	Pn	05:24:29.147	0.2
BFO	5.85	Sn	05:26:32.489	0.0
BFO	5.85	Pn	05:25:28.622	-1.2
BIOA	2.48	Sg	05:25:22.351	-0.6
BIOA	2.48	Pn	05:24:43.899	0.4
BRG	5.19	Pn	05:25:21.059	0.2
BSEG	8.87	Pn	05:26:11.523	0.1
BUD	2.55	Pn	05:24:44.064	-0.5
BUG	8.07	Pn	05:26:00.219	-0.1
CLL	5.80	Sn	05:26:29.767	-1.6
CLL	5.80	Pn	05:25:28.947	-0.2
CLZ	7.06	Pn	05:25:46.207	-0.2
DAVA	4.52	Pn	05:25:11.964	0.4
FETA	3.89	Pn	05:25:03.977	1.0
FLT1	7.19	Pn	05:25:48.474	0.1
FUR	4.02	Sn	05:25:49.200	0.3
FUR	4.02	Sg	05:26:10.647	-0.3
FUR	4.02	Pn	05:25:04.610	-0.1
GEC2	3.38	Sn	05:25:33.841	0.1
GEC2	3.38	Sg	05:25:50.475	-0.7
GEC2	3.38	Pn	05:24:56.814	0.9
GRA1	5.03	Sn	05:26:13.036	-0.1
GRA1	5.03	Sg	05:26:41.549	-1.2
GRA1	5.03	Pn	05:25:17.933	-0.7
GTTG	6.97	Pn	05:25:45.492	0.3
IBBN	8.44	Pn	05:26:05.347	-0.1
KAST	7.37	Pn	05:25:49.974	-0.8
KBA	2.26	Pn	05:24:40.516	0.1
LESA	2.82	Pn	05:24:48.530	0.3
MANZ	4.90	Sn	05:26:09.255	-0.7
MANZ	4.90	Sg	05:26:37.620	-1.0
MANZ	4.90	Pn	05:25:16.646	-0.2
MOA	2.34	Pn	05:24:42.223	0.7
MOTA	3.75	Pn	05:25:01.492	0.5
MOX	5.63	Sn	05:26:27.703	0.5
MOX	5.63	Sg	05:27:02.603	1.4
MOX	5.63	Pn	05:25:26.842	0.1
NEUB	6.04	Pn	05:25:32.486	0.0
OBKA	1.25	Sn	05:24:42.286	-0.8
OBKA	1.25	Pn	05:24:26.787	0.1
PLN	5.30	Sn	05:26:20.572	1.0
PLN	5.30	Sg	05:26:51.109	-0.1
PLN	5.30	Pn	05:25:22.803	0.4
PSZ	3.29	Pn	05:24:54.241	-0.4
RETA	4.02	Pn	05:25:05.000	0.3
RETH	8.15	Pn	05:26:01.923	0.5
ROTZ	4.69	Sn	05:26:04.121	-0.7
ROTZ	4.69	Sg	05:26:32.038	0.1

T__	m_e	
T__	m_e ML	4.9
T__	m_e	
T__	m_e	
T__	m_e	
T__	m_e ML	5.5
T__	m_e	
T__	m_e	
T__	m_e	
T__	m_e	
T__	m_e ML	5.5
T__	m_e	
T__	m_e	
T__	m_e ML	6.0
T__	m_e	
T__	m_e ML	5.6
T__	m_e	
T__	m_e	
T__	m_e	
T__	m_e ML	5.4
T__	m_e ML	5.4
T__	m_e	
T__	m_e	
T__	m_e ML	5.4
T__	m_e ML	5.6
T__	m_e	
T__	m_e	
T__	m_e	
T__	m_e ML	5.7
T__	m_e	
T__	m_e	
T__	m_e ML	5.2
T__	m_e ML	5.7
T__	m_e	
T__	m_e	
T__	m_e	

./bul2003.txt

Tue Jan 04 10:11:49 2022

29

ROTZ	4.69	Pn	05:25:13.450	-0.4	T__	m_e		
ROTZ	4.69	Pg	05:25:30.775	1.3	T__	m_e		
SOP	1.82	Sn	05:24:55.852	-0.7	T__	m_e		
SOP	1.82	Pn	05:24:34.856	0.4	T__	m_e		
SQTA	3.64	Pn	05:25:00.239	0.8	T__	m_e	ML	5.7
STU	5.52	Sn	05:26:23.029	-1.6	T__	m_e		
STU	5.52	Pn	05:25:24.140	-1.2	T__	m_e		
TANN	5.15	Sn	05:26:16.491	0.8	T__	m_e		
TANN	5.15	Sg	05:26:47.106	0.9	T__	m_e		
TANN	5.15	Pn	05:25:20.518	0.3	T__	m_e		
TNS	6.72	Pn	05:25:40.516	-1.3	T__	m_e		
UBBA	6.39	Sg	05:27:26.767	1.6	T__	m_e		
UBBA	6.39	Pn	05:25:37.108	-0.2	T__	m_e		
UBR	4.50	Sg	05:26:26.950	0.9	T__	m_e		
UBR	4.50	Pn	05:25:11.348	0.0	T__	m_e		
WET	3.93	Sg	05:26:07.849	-0.3	T__	m_e		
WET	3.93	Sn	05:25:47.617	0.9	T__	m_e		
WET	3.93	Pn	05:25:03.701	0.3	T__	m_e	ML	5.8
WLF	7.70	Pn	05:25:54.516	-0.8	T__	m_e		
WTTA		Sg	05:25:50.687	-0.5	T__	m_e		
WTTA		Pn	05:24:56.556	0.6	T__	m_e	ML	5.7

Event 322003 Northwestern Balkan Peninsula

Date	Time	Err	RMS	Latitude	Longitude	Smaj	Smin	Az	Depth	Err	Ndef	Nsta	Gap	mdist	Mdist	Qual	Author	
2020/03/22	06:01:21.06	0.48	0.53	45.8920	16.1250	5.6	3.3	1	10.0					25	244	1.26	7.70 m i k e	BGR
OrigID 322009																		

Magnitude	Err	Nsta	Author	OrigID
ML	5.0		BGR	322009

Sta	Dist	EvAz	Phase	Time	TRes	Azim	AzRes	Slow	SRes	Def	SNR	Amp	Per	Qual	Magnitude
ARSA	1.42		Sn	06:02:03.249	-0.6					T__					m_e
ARSA	1.42		Pn	06:01:46.351	0.6					T__					m_e ML 4.5
BFO	5.85		Pn	06:02:45.719	-0.9					T__					m_e
BIOA	2.48		Pn	06:02:00.799	0.5					T__					m_e ML 5.1
BRG	5.19		Pn	06:02:37.630	0.1					T__					m_e
BUD	2.55		Pn	06:02:00.356	-0.9					T__					m_e
CLL	5.80		Pn	06:02:45.840	-0.1					T__					m_e
FUR	4.02		Sn	06:03:05.874	0.2					T__					m_e
FUR	4.02		Pn	06:02:21.467	0.0					T__					m_e ML 5.4
GEC2	3.38		Sn	06:02:50.114	-0.4					T__					m_e
GEC2	3.38		Pn	06:02:13.438	0.7					T__					m_e ML 5.1
GRA1	5.03		Sn	06:03:29.844	-0.0					T__					m_e
GRA1	5.03		Pn	06:02:35.028	-0.4					T__					m_e
KAST	7.37		Pn	06:03:07.265	-0.3					T__					m_e

```
./bu12003.txt
```

Tue Jan 04 10:11:49 2022

30

KBA	2.26	Pn	06:01:57.460	0.2	T__	m_e		
LESA	2.82	Sn	06:02:37.318	0.1	T__	m_e		
LESA	2.82	Pn	06:02:05.492	0.4	T__	m_e	ML	4.7
MANZ	4.90	Sn	06:03:26.136	-0.6	T__	m_e		
MANZ	4.90	Pn	06:02:33.267	-0.4	T__	m_e		
MOA	2.34	Sn	06:02:26.543	0.9	T__	m_e		
MOA	2.34	Pn	06:01:59.069	0.7	T__	m_e	ML	4.8
MOTA	3.75	Pn	06:02:18.487	0.7	T__	m_e	ML	5.0
OBKA	1.26	Sn	06:01:58.821	-1.1	T__	m_e		
OBKA	1.26	Pn	06:01:43.085	-0.4	T__	m_e	ML	5.1
PLN	5.30	Sn	06:03:36.618	0.3	T__	m_e		
PSZ	3.28	Sn	06:02:48.311	0.1	T__	m_e		
PSZ	3.28	Pn	06:02:11.269	-0.1	T__	m_e	ML	4.8
ROTZ	4.69	Sn	06:03:21.161	-0.5	T__	m_e		
ROTZ	4.69	Pn	06:02:30.158	-0.5	T__	m_e		
SOP	1.81	Sn	06:02:12.857	-0.4	T__	m_e		
SOP	1.81	Pn	06:01:51.759	0.6	T__	m_e		
STU	5.52	Pn	06:02:41.342	-0.8	T__	m_e		
TANN	5.14	Sn	06:03:32.325	-0.2	T__	m_e		
TANN	5.14	Pn	06:02:37.310	0.4	T__	m_e		
TNS	6.72	Pn	06:02:58.474	-0.1	T__	m_e		
WET	3.92	Sn	06:03:04.396	0.9	T__	m_e		
WET	3.92	Pn	06:02:20.556	0.4	T__	m_e	ML	5.3
WLF	7.70	Pn	06:03:12.809	0.7	T__	m_e		

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

(produced by SZO/BGR - HANNOVER)

March 2020                      UPDATED    22.December 2021

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

Event 322004 Southern Xinjiang, China

[illegible]

./bul2003.txt Tue Jan 04 10:11:49 2022 31

Magnitude	Err	Nsta	Author	OrigID
mb	5.2		BGR	322010
Ms	4.4		BGR	322010

Sta	Dist	EvAz	Phase	Time	TRes	Azim	AzRes	Slow	SRes	Def	SNR	Amp	Per	Qual	Magnitude
GRA1	48.36		P	19:30:20.003		74.6		6.64		TAS		22.3	0.99	m_e	mb 5.2
GRA1	48.36		L	19:53:43.754						T__		365.4	18.40	a_e	Ms 4.4
MOX	47.82		L	19:53:28.556						T__		346.1	18.20	a_e	Ms 4.4

Event 322005 Central Mid-Atlantic Ridge

Date	Time	Err	RMS	Latitude	Longitude	Smaj	Smin	Az	Depth	Err	Ndef	Nsta	Gap	mdist	Mdist	Qual	Author
2020/03/22	20:43:03.85			-1.1230	-21.8670				20.5					58.07	58.97	m i ke	BGR
OrigID 322011																	

Magnitude	Err	Nsta	Author	OrigID
mb	5.6		BGR	322011
Ms	4.7		BGR	322011

Sta	Dist	EvAz	Phase	Time	TRes	Azim	AzRes	Slow	SRes	Def	SNR	Amp	Per	Qual	Magnitude
GRA1	58.07		P	20:52:56.819		216.9		7.30		TAS		68.6	1.10	m_e	mb 5.6
GRA1	58.07		pP	20:53:02.483		216.5		7.19		TAS				m_e	
GRA1	58.07		L	21:01:04.038						T__		637.3	21.80	a_e	Ms 4.7
MOX	58.97		L	21:15:16.001						T__		606.5	21.70	a_e	Ms 4.7

Event 322006 unknown

Date	Time	Err	RMS	Latitude	Longitude	Smaj	Smin	Az	Depth	Err	Ndef	Nsta	Gap	mdist	Mdist	Qual	Author
2020/03/22	22:38:04.80			-4.6800	-104.9500				10.0					110.26	110.32	m i ke	NEIC
OrigID 322045																	

Magnitude	Err	Nsta	Author	OrigID
Ms	5.8		BGR	322012

Sta	Dist	EvAz	Phase	Time	TRes	Azim	AzRes	Slow	SRes	Def	SNR	Amp	Per	Qual	Magnitude
GRA1	110.32		PKPbc	22:53:18.954		356.5		2.12		TAS				m_e	
GRA1	110.32		L	23:36:50.368						T__		3269.3	21.40	a_e	Ms 5.9
MOX	110.26		L	23:38:38.431						T__		2649.6	22.00	a_e	Ms 5.8

Event 325002 Kuril Islands, Russia

./bul2003.txt

Tue Jan 04 10:11:49 2022

32

Date	Time	Err	RMS	Latitude	Longitude	Smaj	Smin	Az	Depth	Err	Ndef	Nsta	Gap	mdist	Mdist	Qual	Author
2020/03/25	02:49:26.45			49.8420	156.5540				33.0			30		71.39	78.51	m i ke	BGR
325008																	

Magnitude	Err	Nsta	Author	OrigID
mb	7.3		BGR	325008
MBB	7.8		BGR	325008
Ms	7.8		BGR	325008

Sta	Dist	EvAz	Phase	Time	TRes	Azim	AzRes	Slow	SRes	Def	SNR	Amp	Per	Qual	Magnitude
ASSE	74.24		P	03:00:58.711	0.4	22.2		5.69		TAS		13505.3	2.54	m_e	MBB 7.8
BFO	78.32		P	03:01:21.660	0.1	22.2		5.69		TAS		7746.6	2.09	m_e	MBB 7.8
BRG	74.59		P	03:01:00.684	-0.1	22.2		5.69		TAS		998.2	1.19	m_e	MBB 7.6
BSEG	72.64		P	03:00:49.691	0.3	22.2		5.69		TAS		8204.1	2.51	m_e	MBB 7.7
BUG	75.63		P	03:01:06.621	-0.4	22.2		5.69		TAS		5546.9	1.88	m_e	MBB 7.8
CLL	74.43		P	03:00:59.637	0.2	22.2		5.69		TAS		1918.0	1.12	m_e	MBB 7.6
CLZ	74.57		P	03:01:01.220	0.2	22.2		5.69		TAS		4109.1	1.45	m_e	MBB 7.8
FLT1	73.92		P	03:00:56.586	-0.2	22.2		5.69		TAS		4927.9	1.80	m_e	MBB 7.7
FUR	77.77		P	03:01:19.091	-0.3	22.2		5.69		TAS		3476.1	1.28	m_e	MBB 7.9
GEC2	76.51		P	03:01:11.989	-0.1	22.2		5.69		TAS		2542.4	1.62	m_e	MBB 7.8
GOR1	73.29		P	03:00:53.798	0.1	22.2		5.69		TAS		10195.5	1.86	m_e	MBB 8.1
GRA1	76.36		P	03:01:11.476	0.5	22.2		5.69		TAS		3222.0	1.19	m_e	mb 7.3
GRA1	76.36		L	03:38:41.865						T__		517860.0	21.70	a_e	Ms 7.8
GTTG	74.94		P	03:01:03.114	-0.2	22.2		5.69		TAS		3712.4	1.57	m_e	MBB 7.6
IBBN	74.72		P	03:01:01.704	-0.5	22.2		5.69		TAS		3011.2	1.28	m_e	MBB 7.8
KAST	75.61		P	03:01:06.926	-0.3	22.2		5.69		TAS		3787.4	1.57	m_e	MBB 7.8
MANZ	75.87		P	03:01:08.295	0.2	22.2		5.69		TAS		1361.3	2.17	m_e	MBB 7.2
MOX	75.38		P	03:01:05.436	0.0	22.2		5.69		TAS		15634.1	2.90	m_e	MBB 7.8
MOX	75.38		L	03:38:35.309						T__		491912.0	21.80	a_e	Ms 7.8
NEUB	74.84		P	03:01:02.067	-0.2	22.2		5.69		TAS		10926.0	2.13	m_e	MBB 7.7
PLN	75.40		P	03:01:05.557	0.1	22.2		5.69		TAS		2829.0	2.01	m_e	MBB 7.4
RETH	73.97		P	03:00:57.432	-0.1	22.2		5.69		TAS		5349.5	1.75	m_e	MBB 7.7
RGN	71.39		P	03:00:42.673	-0.0	22.2		5.69		TAS		4959.2	1.10	m_e	MBB 8.0
ROTZ	76.05		P	03:01:09.442	0.1	22.2		5.69		TAS		1594.9	1.93	m_e	MBB 7.2
RUE	73.17		P	03:00:52.757	0.2	22.2		5.69		TAS		3679.9	1.25	m_e	MBB 7.9
STU	77.71		P	03:01:18.526	-0.5	22.2		5.69		TAS		4102.7	1.01	m_e	MBB 8.1
TANN	75.39		P	03:01:05.533	0.2	22.2		5.69		TAS		7979.4	2.28	m_e	MBB 7.8
TNS	76.52		P	03:01:12.061	0.1	22.2		5.69		TAS		4720.9	1.81	m_e	MBB 7.8
UBBA	75.61		P	03:01:06.604	-0.0	22.2		5.69		TAS		4229.9	1.82	m_e	MBB 7.8
UBR	78.51		P	03:01:22.909		22.2		5.69		TAS		1484.0	1.12	m_e	MBB 7.7
WET	76.45		P	03:01:12.021	0.1	22.2		5.69		TAS		7588.1	1.86	m_e	MBB 7.9
WLF	77.55		P	03:01:17.744	0.4	22.2		5.69		TAS		7458.1	1.99	m_e	MBB 7.8

Event 325003 East of Kuril Islands, Russia

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



OrigID  
2020/03/25 17:21:47.51 49.3030 158.8060 33.0 76.42 77.40 m i ke BGR  
325009

Magnitude Err Nsta Author OrigID  
mb 5.2 BGR 325009  
Ms 4.7 BGR 325009

Sta	Dist	EvAz	Phase	Time	TRes	Azim	AzRes	Slow	SRes	Def	SNR	Amp	Per	Qual	Magnitude
GRA1	77.40		P	17:33:38.399		23.2		5.09		TAS		19.2	0.90	m_e	mb 5.2
GRA1	77.40		L	18:13:42.913						T__		344.9	18.30	a_e	Ms 4.7
MOX	76.42		L	18:13:03.921						T__		293.0	18.20	a_e	Ms 4.6

Event 325004 Kamchatka Peninsula, Russia  
Date Time Err RMS Latitude Longitude Smaj Smin Az Depth Err Ndef Nsta Gap mdist Mdist Qual Author  
OrigID  
2020/03/25 19:56:07.40 55.8900 160.2500 187.0 71.55 71.55 m i ke NEIC  
325043

Magnitude Err Nsta Author OrigID  
mb 5.2 BGR 325010

Sta	Dist	EvAz	Phase	Time	TRes	Azim	AzRes	Slow	SRes	Def	SNR	Amp	Per	Qual	Magnitude
GRA1	71.55		P	20:07:08.439		16.1		5.18		TAS		18.8	1.07	m_e	mb 5.2

Event 326001 Kyrgyzstan  
Date Time Err RMS Latitude Longitude Smaj Smin Az Depth Err Ndef Nsta Gap mdist Mdist Qual Author  
OrigID  
2020/03/26 04:44:31.50 40.7700 70.5100 10.0 41.26 41.68 m i ke NEIC  
326040

Magnitude Err Nsta Author OrigID  
mb 4.7 BGR 326007  
Ms 4.2 BGR 326007

Sta	Dist	EvAz	Phase	Time	TRes	Azim	AzRes	Slow	SRes	Def	SNR	Amp	Per	Qual	Magnitude
GRA1	41.68		P	04:52:20.992		84.3		6.81		TAS		15.9	0.95	m_e	mb 4.7
GRA1	41.68		L	05:12:11.181						T__		196.5	18.80	a_e	Ms 4.0
MOX	41.26		L	05:11:36.110						T__		555.0	20.10	a_e	Ms 4.4

Event 327005 Southern Iran

Date	Time	Err	RMS	Latitude	Longitude	Smaj	Smin	Az	Depth	Err	Ndef	Nsta	Gap	mdist	Mdist	Qual	Author
2020/03/27	06:40:42.23			27.9000	56.9100				33.0			29		39.13	44.13	m i ke	BGR
OrigID 327011																	

Magnitude	Err	Nsta	Author	OrigID
mb	5.5		BGR	327011
Ms	4.4		BGR	327011

Sta	Dist	EvAz	Phase	Time	TRes	Azim	AzRes	Slow	SRes	Def	SNR	Amp	Per	Qual	Magnitude
ASSE	41.92		P	06:48:31.637	0.1	106.2		8.18		TAS		107.1	1.05	a_e	mb 5.5
BFO	42.48		P	06:48:35.168	-0.3	106.2		8.18		TAS		17.6	0.91	m_e	mb 4.8
BRG	39.59		P	06:48:12.037	-0.6	106.2		8.18		TAS		77.3	0.90	a_e	mb 5.3
BSEG	42.68		P	06:48:37.587	0.3	106.2		8.18		TAS		38.1	0.93	a_e	mb 5.1
BUG	43.79		P	06:48:47.137	0.2	106.2		8.18		TAS		229.7	1.21	a_e	mb 5.8
CLL	40.29		P	06:48:18.287	-0.0	106.2		8.18		TAS		210.7	0.97	a_e	mb 5.7
CLZ	42.02		P	06:48:32.837	0.4	106.2		8.18		TAS		262.6	1.09	a_e	mb 5.9
FLT1	41.65		P	06:48:29.187	-0.1	106.2		8.18		TAS		204.1	0.83	a_e	mb 5.9
FUR	40.52		P	06:48:19.637	0.1	106.2		8.18		TAS		128.5	1.11	a_e	mb 5.6
GEC2	39.13		P	06:48:08.687	0.1	106.2		8.18		TAS		189.1	1.06	a_e	mb 5.7
GOR1	41.82		P	06:48:30.787	0.3	106.2		8.18		TAS		117.9	0.91	a_e	mb 5.6
GRA1	40.92		P	06:48:23.637	0.3	106.2		8.18		TAS		266.9	0.97	a_e	mb 5.9
GRA1	40.92		L	07:08:59.157						T__		594.8	21.10	a_e	Ms 4.4
GTTG	42.18		P	06:48:34.237	0.5	106.2		8.18		TAS		145.8	1.26	a_e	mb 5.6
HLG	44.12		P	06:48:47.037	-2.1	106.2		8.18		TAS		145.9	0.83	a_e	mb 5.8
IBBN	43.70		P	06:48:46.287	0.1	106.2		8.18		TAS		198.2	1.17	a_e	mb 5.7
KAST	43.03		P	06:48:41.237	0.5	106.2		8.18		TAS		144.0	1.17	a_e	mb 5.6
MOX	40.93		P	06:48:23.387	-0.2	106.2		8.18		TAS		43.2	0.95	a_e	mb 5.2
MOX	40.93		L	07:10:26.830						T__		426.2	18.70	a_e	Ms 4.3
NEUB	41.00		P	06:48:23.987	-0.1	106.2		8.18		TAS		156.3	0.97	a_e	mb 5.7
PLN	40.56		P	06:48:19.937	-0.5	106.2		8.18		TAS		13.8	1.20	a_e	mb 4.6
RETH	42.87		P	06:48:39.587	0.3	106.2		8.18		TAS		45.1	1.11	a_e	mb 5.1
RGN	41.24		P	06:48:25.937	1.1	106.2		8.18		TAS		332.5	0.85	a_e	mb 6.1
RUE	40.23		P	06:48:17.137	-0.3	106.2		8.18		TAS		135.2	0.84	a_e	mb 5.6
STU	42.00		P	06:48:31.187	-0.6	106.2		8.18		TAS		146.8	1.08	a_e	mb 5.6
TANN	40.35		P	06:48:18.437	-0.3	106.2		8.18		TAS		15.7	0.96	m_e	mb 4.6
TNS	42.79		P	06:48:39.187	0.6	106.2		8.18		TAS		214.6	1.13	a_e	mb 5.8
UBBA	41.97		P	06:48:32.387	0.4	106.2		8.18		TAS		186.9	1.86	a_e	mb 5.5
UBR	41.18		P	06:48:25.137	0.5	106.2		8.18		TAS		199.7	0.85	a_e	mb 5.9
WET	39.73		P	06:48:13.237	-0.3	106.2		8.18		TAS		114.8	1.14	m_e	mb 5.4
WLF	44.13		P	06:48:49.387	0.0	106.2		8.18		TAS		94.1	1.00	a_e	mb 5.5

Event 328002 Hokkaido, Japan, region

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

./bul2003.txt

Tue Jan 04 10:11:49 2022

35

2020/03/28 00:58:00.91  
328008

42.8280 141.0740

61.4

28

74.64 80.03 m i ke BGR

Magnitude Err Nsta Author OrigID  
mb 5.4 BGR 328008

Sta	Dist	EvAz	Phase	Time	TRes	Azim	AzRes	Slow	SRes	Def	SNR	Amp	Per	Qual	Magnitude
ASSE	76.05		P	01:09:40.032	-0.1	35.2		5.57		TAS		20.3	0.97	a_e mb	5.2
BFO	80.03		P	01:10:01.800	-0.5	35.2		5.57		TAS		15.7	0.82	m_e mb	5.0
BRG	75.86		P	01:09:39.032	-0.0	35.2		5.57		TAS		13.2	0.96	a_e mb	5.0
BSEG	74.69		P	01:09:32.482	0.0	35.2		5.57		TAS		22.9	0.84	a_e mb	5.2
BUG	77.80		P	01:09:49.382	-0.4	35.2		5.57		TAS		38.3	0.78	m_e mb	5.6
CLL	75.86		P	01:09:38.782	-0.3	35.2		5.57		TAS		43.1	0.89	a_e mb	5.6
CLZ	76.39		P	01:09:42.232	0.2	35.2		5.57		TAS		46.8	0.78	a_e mb	5.7
FLT1	75.68		P	01:09:37.532	-0.5	35.2		5.57		TAS		57.1	0.82	a_e mb	5.7
FUR	79.07		P	01:09:57.132	0.2	35.2		5.57		TAS		65.9	0.84	a_e mb	5.7
GEC2	77.57		P	01:09:48.682	0.1	35.2		5.57		TAS		15.5	0.88	a_e mb	5.1
GOR1	75.12		P	01:09:35.282	0.4	35.2		5.57		TAS		21.4	0.87	a_e mb	5.2
GRA1	77.84		P	01:09:50.582	0.5	35.2		5.57		TAS		64.1	0.74	a_e mb	5.8
GRA1	77.84		sP	01:10:14.593	0.6					T__				m_e	
GTTG	76.78		P	01:09:44.232	0.1	35.2		5.57		TAS		41.1	0.84	m_e mb	5.6
HLG	75.30		P	01:09:35.682	-0.0	35.2		5.57		TAS		259.8	0.98	a_e mb	6.2
IBBN	76.91		P	01:09:44.582	-0.2	35.2		5.57		TAS		51.5	0.78	a_e mb	5.7
KAST	77.60		P	01:09:48.632	-0.1	35.2		5.57		TAS		20.2	0.80	a_e mb	5.3
MOX	76.91		P	01:09:44.932	-0.0	35.2		5.57		TAS		14.5	0.72	a_e mb	5.2
NEUB	76.41		P	01:09:41.982	-0.2	35.2		5.57		TAS		51.5	0.82	a_e mb	5.7
PLN	76.84		P	01:09:44.582	0.0	35.2		5.57		TAS		4.3	0.84	a_e mb	4.6
RETH	76.00		P	01:09:39.832	0.0	35.2		5.57		TAS		36.3	1.17	a_e mb	5.4
RUE	74.64		P	01:09:32.232	-0.0	35.2		5.57		TAS		48.5	0.97	a_e mb	5.5
STU	79.35		P	01:09:58.232	-0.3	35.2		5.57		TAS		106.2	0.78	a_e mb	5.8
TANN	76.79		P	01:09:44.282	0.1	35.2		5.57		TAS		6.7	0.89	a_e mb	4.8
TNS	78.41		P	01:09:53.132	-0.1	35.2		5.57		TAS		32.6	1.27	a_e mb	5.2
UBBA	77.36		P	01:09:47.532	0.1	35.2		5.57		TAS		10.5	0.62	a_e mb	5.1
UBR	79.91		P	01:10:01.025	-0.6	35.2		5.57		TAS		10.2	0.82	m_e mb	4.8
WET	77.65		P	01:09:49.582	0.5	35.2		5.57		TAS		28.5	0.90	a_e mb	5.4
WLF	79.68		P	01:10:01.432	1.1	35.2		5.57		TAS		15.9	0.82	a_e mb	5.0

Event 329003 Vanuatu Islands region

Date	Time	Err	RMS	Latitude	Longitude	Smaj	Smin	Az	Depth	Err	Ndef	Nsta	Gap	mdist	Mdist	Qual	Author
2020/03/29	18:19:19.97			-20.4280	171.1690				33.0			26		143.42	148.86	m i ke	BGR
329009																	

Magnitude Err Nsta Author OrigID  
Ms 5.3 BGR 329009

./bul2003.txt

Tue Jan 04 10:11:49 2022

36

Sta	Dist	EvAz	Phase	Time	TRes	Azim	AzRes	Slow	SRes	Def	SNR	Amp	Per	Qual	Magnitude
ASSE	144.85		PKPbc	18:38:52.243	0.1	35.8		2.96		TAS				a_e	
BFO	148.86		PKPbc	18:39:03.343	-0.6	35.8		2.96		TAS				a_e	
BRG	144.68		PKPbc	18:38:51.243	-0.3	35.8		2.96		TAS				a_e	
BSEG	143.42		PKPbc	18:38:47.343	-0.8	35.8		2.96		TAS				a_e	
BUG	146.51		PKPbc	18:38:57.193	-0.2	35.8		2.96		TAS				a_e	
CLL	144.69		PKPbc	18:38:51.193	-0.4	35.8		2.96		TAS				a_e	
CLZ	145.19		PKPbc	18:38:53.593	0.4	35.8		2.96		TAS				a_e	
FLT1	144.49		PKPbc	18:38:50.593	-0.5	35.8		2.96		TAS				a_e	
FUR	147.88		PKPbc	18:39:01.043	-0.0	35.8		2.96		TAS				a_e	
GEC2	146.34		PKPbc	18:38:56.443	-0.1	35.8		2.96		TAS				a_e	
GOR1	143.91		PKPbc	18:38:49.143	-0.3	35.8		2.96		TAS				a_e	
GRA1	146.67		PKPbc	18:38:57.852	0.4	35.8		2.96		TAS				m_e	
GRA1	146.67		L	19:53:56.953						T__		499.2	18.90	a_e	Ms 5.3
GTTG	145.57		PKPbc	18:38:54.843	0.5	35.8		2.96		TAS				a_e	
IBBN	145.60		PKPbc	18:38:54.843	0.1	35.8		2.96		TAS				a_e	
KAST	146.37		PKPbc	18:38:56.943	0.1	35.8		2.96		TAS				a_e	
MOX	145.75		PKPbc	18:38:55.193	0.5	35.8		2.96		TAS				a_e	
MOX	145.75		L	19:47:40.566						T__		542.9	19.50	a_e	Ms 5.3
NEUB	145.24		PKPbc	18:38:53.343	0.1	35.8		2.96		TAS				a_e	
PLN	145.67		PKPbc	18:38:54.943	0.5	35.8		2.96		TAS				a_e	
RETH	144.75		PKPbc	18:38:52.043	-0.0	35.8		2.96		TAS				m_e	
STU	148.18		PKPbc	18:39:01.743	-0.2	35.8		2.96		TAS				a_e	
TANN	145.62		PKPbc	18:38:54.793	0.5	35.8		2.96		TAS				a_e	
TNS	147.20		PKPbc	18:38:59.493	0.3	35.8		2.96		TAS				a_e	
UBBA	146.18		PKPbc	18:38:56.643	0.6	35.8		2.96		TAS				a_e	
UBR	148.74		PKPbc	18:39:02.793	-0.8	35.8		2.96		TAS				a_e	
WET	146.46		PKPbc	18:38:56.993	0.1	35.8		2.96		TAS				a_e	
WLF	148.41		PKPbc	18:39:03.143	0.2	35.8		2.96		TAS				a_e	

Event 330005 Afghanistan-Tajikistan border region

Date	Time	Err	RMS	Latitude	Longitude	Smaj	Smin	Az	Depth	Err	Ndef	Nsta	Gap	mdist	Mdist	Qual	Author
2020/03/30	15:42:29.55			36.2500	72.2500				226.5	22.1		27		43.54	48.65	m i ke	BGR
330011																	

Magnitude	Err	Nsta	Author	OrigID
mb	5.1		BGR	330011

Sta	Dist	EvAz	Phase	Time	TRes	Azim	AzRes	Slow	SRes	Def	SNR	Amp	Per	Qual	Magnitude
ASSE	45.48		P	15:50:23.516	-0.8	84.5		7.83		TAS		30.7	1.63	m_e	mb 5.1
BFO	47.47		P	15:50:39.262	0.0	84.5		7.83		TAS		20.8	1.62	m_e	mb 5.0
BFO	47.47		sP	15:51:52.345		84.0		7.95		TAS				m_e	
BRG	43.54		P	15:50:08.874	-0.3	84.5		7.83		TAS		31.0	1.04	a_e	mb 5.0
BRG	43.54		pP	15:51:00.696		83.7		8.81		TAS				m_e	
BSEG	45.57		P	15:50:25.274	0.8	84.5		7.83		TAS		19.4	1.00	a_e	mb 5.1

./bul2003.txt

Tue Jan 04 10:11:49 2022

37

BUG	47.66	P	15:50:41.174		84.5	7.83	TAS	23.8	1.06	a_e	mb	5.2
CLL	44.11	P	15:50:12.874	-0.7	84.5	7.83	TAS	17.4	0.93	a_e	mb	4.8
CLL	44.11	pP	15:51:05.602		83.7	8.81	TAS			m_e		
CLZ	45.70	P	15:50:26.074	0.1	84.5	7.83	TAS	48.6	1.29	a_e	mb	5.4
FLT1	45.12	P	15:50:20.824	-0.6	84.5	7.83	TAS	45.9	0.93	m_e	mb	5.4
FUR	45.56	P	15:50:25.024	0.7	84.5	7.83	TAS	66.2	1.33	a_e	mb	5.5
GEC2	43.87	P	15:50:11.374	0.0	84.5	7.83	TAS	5.5	1.00	a_e	mb	4.2
GEC2	43.87	pP	15:51:03.408		83.7	8.81	TAS			m_e		
GEC2	43.87	sP	15:51:23.484	-0.2	84.0	7.95	TAS			m_e		
GOR1	45.04	P	15:50:21.024	0.4	84.5	7.83	TAS	52.0	1.14	a_e	mb	5.4
GRA1	45.39	P	15:50:24.474	1.0	84.5	7.83	TAS	108.4	1.78	a_e	mb	5.5
GRA1	45.39	sP	15:51:36.298		84.0	7.95	TAS			m_e		
GTTG	45.98	P	15:50:28.274	0.1	84.5	7.83	TAS	58.2	1.14	a_e	mb	5.5
GTTG	45.98	sP	15:51:40.300		84.0	7.95	TAS			m_e		
IBBN	47.25	P	15:50:38.074	-0.2	84.5	7.83	TAS	67.7	1.24	a_e	mb	5.6
KAST	46.98	P	15:50:35.668	-0.7	84.5	7.83	TAS	4.8	0.92	m_e	mb	4.6
MOX	45.03	P	15:50:20.724	-0.1	84.5	7.83	TAS	27.0	1.20	a_e	mb	5.0
MOX	45.03	sP	15:51:32.794		84.0	7.95	TAS			m_e		
NEUB	44.88	P	15:50:19.274	-0.4	84.5	7.83	TAS	51.6	1.08	a_e	mb	5.4
PLN	44.71	P	15:50:18.074	-0.1	84.5	7.83	TAS	6.3	1.22	a_e	mb	4.4
RETH	46.23	P	15:50:29.764	-0.2	84.5	7.83	TAS	16.0	1.20	m_e	mb	4.9
RGN	43.79	P	15:50:11.224	1.0	84.5	7.83	TAS	135.3	0.90	a_e	mb	5.7
RUE	43.56	P	15:50:08.474	-0.7	84.5	7.83	TAS	31.8	1.04	a_e	mb	5.0
STU	46.83	P	15:50:34.574	-0.1	84.5	7.83	TAS	29.9	0.70	a_e	mb	5.5
TANN	44.52	P	15:50:16.724	-0.0	84.5	7.83	TAS	15.2	1.10	a_e	mb	4.8
TNS	47.09	P	15:50:36.924	-0.3	84.5	7.83	TAS	17.5	1.11	a_e	mb	5.1
TNS	47.09	sP	15:51:49.354		84.0	7.95	TAS			m_e		
UBBA	46.04	P	15:50:28.624	-0.1	84.5	7.83	TAS	10.5	0.60	a_e	mb	5.0
UBBA	46.04	sP	15:51:41.172		84.0	7.95	TAS			m_e		
UBR	46.41	P	15:50:31.024	0.1	84.5	7.83	TAS	18.6	1.11	a_e	mb	5.0
UBR	46.41	sP	15:51:43.102		84.0	7.95	TAS			m_e		
WET	44.38	P	15:50:15.637	0.2	84.5	7.83	TAS	7.7	1.44	m_e	mb	4.2
WET	44.38	sP	15:51:27.734	0.2	84.0	7.95	TAS			m_e		
WLF	48.65	P	15:50:49.124		84.5	7.83	TAS	29.3	0.94	a_e	mb	5.3

Event 401003 Western Idaho, United States

Date	Time	Err	RMS	Latitude	Longitude	Smaj	Smin	Az	Depth	Err	Ndef	Nsta	Gap	mdist	Mdist	Qual	Author
2020/03/31	23:52:36.07			45.1700	-115.4400				33.0			29		69.82	76.27	m i ke	BGR
401009																	

Magnitude	Err	Nsta	Author	OrigID
mb	5.8		BGR	401009
Ms	6.6		BGR	401009

Sta	Dist	EvAz	Phase	Time	TRes	Azim	AzRes	Slow	SRes	Def	SNR	Amp	Per	Qual	Magnitude
-----	------	------	-------	------	------	------	-------	------	------	-----	-----	-----	-----	------	-----------

./bul2003.txt

Tue Jan 04 10:11:49 2022

38

ASSE	72.47	P	00:04:00.246	0.1	323.9	5.88	TAS	95.2	1.38	a_e	mb	5.7
BFO	74.60	P	00:04:12.446	-0.1	323.9	5.88	TAS	82.0	0.93	a_e	mb	5.7
BRG	74.68	P	00:04:13.196	0.0	323.9	5.88	TAS	212.3	1.81	a_e	mb	5.9
BSEG	70.90	P	00:03:50.996	0.1	323.9	5.88	TAS	52.7	0.92	a_e	mb	5.7
BUG	71.72	P	00:03:55.296	-0.5	323.9	5.88	TAS	80.5	1.08	a_e	mb	5.8
CLL	73.98	P	00:04:08.846	-0.2	323.9	5.88	TAS	51.9	0.95	a_e	mb	5.5
CLZ	72.59	P	00:04:01.296	0.4	323.9	5.88	TAS	197.0	1.54	m_e	mb	6.0
FLT1	72.52	P	00:03:59.896	-0.5	323.9	5.88	TAS	87.6	1.41	a_e	mb	5.7
FUR	75.90	P	00:04:20.596	0.2	323.9	5.88	TAS			a_e		
GEC2	76.27	P	00:04:22.196		323.9	5.88	TAS	215.0	1.77	a_e	mb	6.0
GOR1	72.01	P	00:03:57.646	0.2	323.9	5.88	TAS	105.0	1.34	a_e	mb	5.8
GRA1	74.64	P	00:04:13.346	0.4	323.9	5.88	TAS	210.3	1.54	a_e	mb	5.9
GRA1	74.64	L	00:38:37.231				T__	25203.3	18.90	a_e	Ms	6.5
GTTG	72.67	P	00:04:01.396	0.0	323.9	5.88	TAS	62.5	1.17	a_e	mb	5.6
HLG	69.82	P	00:03:44.146	-0.4	323.9	5.88	TAS	211.4	1.01	a_e	mb	6.2
IBBN	71.24	P	00:03:52.796	-0.1	323.9	5.88	TAS	152.1	0.89	a_e	mb	6.1
KAST	72.36	P	00:03:59.246	-0.2	323.9	5.88	TAS	22.9	0.96	a_e	mb	5.3
MOX	74.02	P	00:04:09.296	0.0	323.9	5.88	TAS	155.3	1.59	a_e	mb	5.8
MOX	74.02	L	00:36:21.446				T__	35352.2	21.30	a_e	Ms	6.6
NEUB	73.63	P	00:04:06.846	-0.2	323.9	5.88	TAS	77.4	1.00	a_e	mb	5.7
PLN	74.35	P	00:04:11.046	-0.2	323.9	5.88	TAS	15.9	0.88	a_e	mb	5.1
RETH	71.50	P	00:03:54.846	0.4	323.9	5.88	TAS	80.2	0.94	a_e	mb	5.8
RGN	71.45	P	00:03:54.496	0.5	323.9	5.88	TAS	130.1	1.07	a_e	mb	6.0
RUE	73.30	P	00:04:04.996	-0.0	323.9	5.88	TAS	179.1	1.66	a_e	mb	5.9
STU	74.59	P	00:04:12.596	-0.0	323.9	5.88	TAS	231.5	1.38	a_e	mb	6.0
TANN	74.52	P	00:04:12.146	-0.1	323.9	5.88	TAS	98.4	1.58	a_e	mb	5.6
TNS	73.14	P	00:04:04.096	-0.0	323.9	5.88	TAS	39.4	1.05	a_e	mb	5.5
UBBA	73.27	P	00:04:04.946	0.1	323.9	5.88	TAS	97.7	1.60	a_e	mb	5.7
UBR	75.83	P	00:04:20.196	0.3	323.9	5.88	TAS	132.4	1.08	a_e	mb	6.0
WET	75.71	P	00:04:19.096	-0.2	323.9	5.88	TAS	180.7	1.96	a_e	mb	5.9
WLF	72.66	P	00:04:01.546	0.4	323.9	5.88	TAS	113.7	1.30	a_e	mb	5.8

Event 401004 Western Idaho, United States

Date	Time	Err	RMS	Latitude	Longitude	Smaj	Smin	Az	Depth	Err	Ndef	Nsta	Gap	mdist	Mdist	Qual	Author
2020/03/31	23:52:36.27			45.3600	-115.8000				33.0			27		70.86	76.24	m i ke	BGR
	401010																

Magnitude	Err	Nsta	Author	OrigID
mb	5.8		BGR	401010
Ms	6.6		BGR	401010

Sta	Dist	EvAz	Phase	Time	TRes	Azim	AzRes	Slow	SRes	Def	SNR	Amp	Per	Qual	Magnitude
ASSE	72.44	P		00:04:00.215	0.1	324.3		5.88		TAS		95.2	1.38	a_e	mb 5.7
BFO	74.59	P		00:04:12.465	-0.2	324.3		5.88		TAS		82.0	0.93	a_e	mb 5.7
BRG	74.64	P		00:04:13.215	0.1	324.3		5.88		TAS		212.3	1.81	a_e	mb 5.9

BSEG	70.86	P	00:03:51.015	0.2	324.3	5.88	TAS	52.7	0.92	a_e	mb	5.7
BUG	71.71	P	00:03:55.315	-0.5	324.3	5.88	TAS	80.5	1.08	a_e	mb	5.8
CLL	73.95	P	00:04:08.915	-0.1	324.3	5.88	TAS	51.9	0.95	a_e	mb	5.5
CLZ	72.56	P	00:04:01.315	0.4	324.3	5.88	TAS	197.0	1.54	a_e	mb	6.0
FLT1	72.48	P	00:03:59.915	-0.5	324.3	5.88	TAS	87.6	1.41	m_e	mb	5.7
FUR	75.88	P	00:04:20.615	0.2	324.3	5.88	TAS	180.3	1.40	a_e	mb	6.0
GEC2	76.24	P	00:04:22.215	-0.3	324.3	5.88	TAS	215.0	1.77	a_e	mb	6.0
GOR1	71.97	P	00:03:57.395	0.0	324.3	5.88	TAS	235.9	1.81	m_e	mb	6.0
GRA1	74.62	P	00:04:13.365	0.4	324.3	5.88	TAS	210.3	1.54	a_e	mb	5.9
GRA1	74.62	L	00:38:37.205				T__	25202.8	18.90	a_e	Ms	6.5
GTTG	72.65	P	00:04:01.465	0.1	324.3	5.88	TAS	62.5	1.17	a_e	mb	5.6
IBBN	71.21	P	00:03:52.865	-0.1	324.3	5.88	TAS	152.1	0.89	a_e	mb	6.1
KAST	72.34	P	00:03:59.215	-0.3	324.3	5.88	TAS	22.9	0.96	a_e	mb	5.3
MOX	73.99	P	00:04:09.215	-0.1	324.3	5.88	TAS	155.2	1.59	a_e	mb	5.8
MOX	73.99	L	00:36:21.455				T__	35352.2	21.30	a_e	Ms	6.6
NEUB	73.60	P	00:04:06.915	-0.1	324.3	5.88	TAS	77.4	1.00	a_e	mb	5.7
PLN	74.32	P	00:04:11.065	-0.1	324.3	5.88	TAS	15.9	0.88	a_e	mb	5.1
RETH	71.47	P	00:03:54.865	0.4	324.3	5.88	TAS	223.1	1.50	a_e	mb	6.1
RUE	73.26	P	00:04:05.015	0.1	324.3	5.88	TAS	71.3	1.20	a_e	mb	5.7
STU	74.58	P	00:04:12.665	-0.0	324.3	5.88	TAS	133.0	1.07	a_e	mb	5.9
TANN	74.49	P	00:04:12.115	-0.1	324.3	5.88	TAS	98.5	1.58	a_e	mb	5.6
TNS	73.13	P	00:04:04.165	0.0	324.3	5.88	TAS	39.4	1.05	a_e	mb	5.5
UBBA	73.25	P	00:04:04.815	-0.1	324.3	5.88	TAS	97.7	1.60	a_e	mb	5.7
UBR	75.82	P	00:04:20.265	0.3	324.3	5.88	TAS	132.4	1.08	a_e	mb	6.0
WET	75.69	P	00:04:19.115	-0.1	324.3	5.88	TAS	180.7	1.96	a_e	mb	5.9
WLF	72.65	P	00:04:01.515	0.2	324.3	5.88	TAS	94.6	1.20	a_e	mb	5.8