

# Seismological Bulletin

from the

UNIVERSITY OF LISBON  
FACULTY OF SCIENCE

## IDL Seismic Network

November to December

2022

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## STATIONS USED

The stations listed below are those operated by the Instituto D. Luiz, Faculty of Science, University of Lisbon (FCUL).  
Former Instituto Geofisico Infante D.Luiz.

Lisboa (IGIDL)  
GGNV

Latitude	38.7165N
Longitude	9.1491W
Height	77 m

Marmelete (Picos)  
MORF

Latitude	37.3043N
Longitude	8.6527W
Height	560 m

Messejana  
MESJ

Latitude	37.8395N
Longitude	8.2199W
Height	25 0m

Grandola  
GRNL

Latitude	38.108307N
Longitude	8.569027W
Height	172 m

November 1 2022 Hour: 2:21 44.8 Lat: 36.63N Lon: 9.78W Depth: 14F Agency: IGL Regional  
Magnitudes: 2.3ML IGL Rms: 0.1 secs

WEST OF GIBRALTAR Net: IMP

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
MORF	HZ	125	53	EP		222	4.450	.030							1.0
MORF	HE	125	53	ES		222	18.850	.080							1.0
MORF	HN	125	53	IAML		222	19.64			76	0.2				
GRNL	CZ	196	33	EP		222	12.99	-.210							1.0
GRNL	CN	196	33	ES		222	34.050	.100							1.0
GRNL	CN	196	33	IAML		222	34.89			16	0.1				

November 1 2022 Hour: 3:50 49.0 Lat: 43.58N Lon: 9.74W Depth: 19F Agency: IGL Regional  
Magnitudes: 1.9ML IGL Rms: 0.1 secs

NORTH ATLANTIC OCEAN Net: IMP

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
GRNL	CZ	616	170	EP		352	8.590	.100							1.0
GRNL	CN	616	170	ES		353	6.46	-.030							1.0
GRNL	CE	616	170	IAML		353	8.57			1	0.3				
MESJ	HZ	650	168	EP		352	12.61	-.080							1.0

November 1 2022 Hour: 16: 5 17.0 Lat: 37.33N Lon: 8.55W Depth: 9F Agency: IGL Regional  
Magnitudes: 0.6ML IGL Rms: 0.1 secs

NE MONCHIQUE, PORTUGAL Net: IMP

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
MORF	HZ	9	253	EP		16	5	19.05	-.110						1.0
MORF	HE	9	253	ES		16	5	20.840	.110						1.0
MORF	HN	9	253	IAML		16	5	20.98		32	0.3				

November 1 2022 Hour: 22:52 51.8 Lat: 35.52N Lon: 3.68W Depth: 0 Agency: IGL Regional  
Rms: 0.0 secs

STRAIT OF GIBRALTAR Net: MAD

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
GRNL	CZ	522	305	EP		2254	1.860	.000							1.0

November 2 2022 Hour: 2:37 58.5 Lat: 22.41S Lon: 68.69W Depth: 89F Agency: IGL Distant  
Magnitudes: 5.0Mb IGL Rms: 0.0 secs

ANTOFAGASTA, CHILE Net: CSEM

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
MORF	BZ	9120	44	EP		250	8.700	.040							1.0
MESJ	BZ	9185	44	EP		250	11.64	-.040							1.0
MESJ	BZ	9185	44	IAMB		250	13.54			14	0.7				

November 2 2022 Hour: 2:38 57.0 Lat: 37.35N Lon: 8.48W Depth: 12F Agency: IGL Regional  
Magnitudes: 0.6ML IGL Rms: 0.1 secs

NE MONCHIQUE, PORTUGAL Net: IMP

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
MORF	HZ	16	253	EP		239	0.23	-.110							1.0
MORF	HN	16	253	ES		239	2.870	.110							1.0
MORF	HN	16	253	IAML		239	3.32			16	0.2				

November 2 2022 Hour: 2:47 38.9 Lat: 37.30N Lon: 8.56W Depth: 6F Agency: IGL Regional  
Magnitudes: 0.5ML IGL Rms: 0.1 secs

SW MONCHIQUE, PORTUGAL Net: IMP

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
MORF	HZ	8	272	EP		247	40.38	-.140							1.0
MORF	HN	8	272	ES		247	41.940	.210							1.0
MORF	HN	8	272	IAML		247	42.41			26	0.1				
GRNL	CN	90	360	ES		248	3.81	-.080							1.0
GRNL	CN	90	360	IAML		248	4.59			2	0.1				

**November 2 2022 Hour: 15: 8 43.0 Lat: 36.64N Lon: 8.39W Depth: 22F Agency: IGL Regional  
Magnitudes: 3.6ML IGL Rms: 0.1 secs**

**WEST OF GIBRALTAR Net: IMP**

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
MORF	HZ	77	343	EP		15	8	55.530	.080						1.0
MORF	HN	77	343	ES		15	9	4.52	-.050						1.0
MORF	HN	77	343	IAML		15	9	6.61		4443	0.2				
MESJ	HZ	134	7	EP		15	9	2.980	.050						1.0
MESJ	HN	134	7	ES		15	9	17.660	.160						1.0
MESJ	HN	134	7	IAML		15	9	18.30		329	0.2				
GRNL	CZ	163	355	EP		15	9	6.35	-.260						1.0

**November 2 2022 Hour: 18:43 16.7 Lat: 37.34N Lon: 8.55W Depth: 10F Agency: IGL Regional  
Magnitudes: 0.6ML IGL Rms: 0.1 secs**

**NE MONCHIQUE, PORTUGAL Net: IMP**

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
MORF	HZ	10	249	EP		1843	18.93	-.110							1.0
MORF	HN	10	249	ES		1843	20.840	.110							1.0
MORF	HN	10	249	IAML		1843	21.36			30	0.1				

**November 2 2022 Hour: 19:18 15.0 Lat: 37.37N Lon: 8.50W Depth: 6F Agency: IGL Regional  
Magnitudes: 1.4ML IGL Rms: 0.1 secs**

**NE MONCHIQUE, PORTUGAL Net: IMP**

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
MORF	HZ	15	243	EP		1918	17.49	-.150							1.0
MORF	HE	15	243	ES		1918	19.700	.150							1.0
MORF	HN	15	243	IAML		1918	20.12			136	0.1				

**November 2 2022 Hour: 22:49 44.2 Lat: 36.60N Lon: 9.73W Depth: 32F Agency: IGL Regional  
Magnitudes: 1.9ML IGL Rms: 0.1 secs**

**WEST OF GIBRALTAR Net: IMP**

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
MORF	HZ	124	51	EP		2250	2.460	.090							1.0
MORF	HE	124	51	ES		2250	15.64	-.040							1.0
MORF	HN	124	51	IAML		2250	16.94			36	0.2				
MESJ	HZ	193	44	EP		2250	10.840	.020							1.0
MESJ	HN	193	44	ES		2250	30.410	.120							1.0
MESJ	HN	193	44	IAML		2250	32.65			8	0.1				
GRNL	CZ	197	31	EP		2250	11.14	-.220							1.0
GRNL	CN	197	31	ES		2250	31.260	.040							1.0
GRNL	CN	197	31	IAML		2250	32.12			5	0.1				

**November 3 2022 Hour: 0: 4 18.2 Lat: 36.97N Lon: 8.96W Depth: 28F Agency: IGL Regional  
Magnitudes: 0.7ML IGL Rms: 0.0 secs**

**WEST OF GIBRALTAR Net: IMP**

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
MORF	HZ	46	36	EP		0	4	26.50	-.040						1.0
MORF	HN	46	36	ES		0	4	32.680	.040						1.0
MORF	HN	46	36	IAML		0	4	33.15		4	0.1				

**November 3 2022 Hour: 2:11 1.1 Lat: 37.30N Lon: 8.55W Depth: 14F Agency: IGL Regional  
Magnitudes: 0.1ML IGL Rms: 0.1 secs**

**SE MONCHIQUE, PORTUGAL Net: IMP**

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
MORF	HZ	9	272	EP		211	3.69	-.140							1.0
MORF	HN	9	272	ES		211	5.980	.140							1.0
MORF	HN	9	272	IAML		211	6.39			7	0.1				

November 3 2022 Hour: 2:42 4.5 Lat: 37.35N Lon: 8.49W Depth: 9F Agency: IGL Regional  
Magnitudes: 0.5ML IGL Rms: 0.1 secs

NE MONCHIQUE, PORTUGAL Net: IMP

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
MORF	HZ	16	251	EP		242	7.34	-.140							1.0
MORF	HN	16	251	ES		242	9.760	.120							1.0
MORF	HN	16	251	IAML		242	10.17			53	0.2				
MESJ	HN	59	23	ES		242	21.20	-.040							1.0
MESJ	HN	59	23	IAML		242	22.49			0.80	0.1				
GRNL	CN	85	355	ES		242	28.190	.070							1.0
GRNL	CN	85	355	IAML		242	28.77			1	0.1				

November 3 2022 Hour: 3: 5 56.7 Lat: 35.84N Lon: 10.20W Depth: 23F Agency: IGL Regional  
Magnitudes: 1.5ML IGL Rms: 0.1 secs

WEST OF GIBRALTAR Net: IMP

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
MORF	HZ	213	40	EP		3 6	26.860	.030							1.0
MORF	HN	213	40	ES		3 6	48.900	.110							1.0
MORF	HN	213	40	IAML		3 6	49.99			2	0.2				
GRNL	CZ	291	30	EP		3 6	36.21	-.160							1.0
GRNL	CN	291	30	ES		3 7	5.300	.010							1.0
GRNL	CN	291	30	IAML		3 7	6.44			3	0.2				

November 3 2022 Hour: 4:50 24.2 Lat: 45.49N Lon: 26.52E Depth: 149F Agency: IGL Distant  
Magnitudes: 5.0Mb IGL Rms: 0.1 secs

ROMANIA Net: CSEM

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
MESJ	BZ	2989	266	EP		455	51.180	.080							1.0
MESJ	BZ	2989	266	IAMB		455	53.54			57	1.6				
GRNL	BZ	3002	267	EP		455	52.10	-.080							1.0
GRNL	BZ	3002	267	IAMB		455	54.71			66	1.5				

November 3 2022 Hour: 18:46 46.2 Lat: 6.54S Lon: 130.50E Depth: 74F Agency: IGL Distant  
Rms: 0.1 secs

BANDA SEA Net: NEIC

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
MESJ	BZ14618	316	EP	KPpdf		19 5	49.490	.010							1.0
GRNL	BZ14630	316	EP	KPpdf		19 5	49.760	.090							1.0
MORF	BZ14681	316	EP	KPpdf		19 5	50.49	-.100							1.0

November 3 2022 Hour: 20:47 46.2 Lat: 53.79N Lon: 35.52W Depth: 10F Agency: IGL Distant  
Magnitudes: 5.0Ms IGL Rms: 0.0 secs

REYKJANES RIDGE Net: NEIC

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
GGNV	BN	2607	119	ES		2057	10.10	-0.01							1.0
GGNV	BZ	2607	119	IAMS_20		2059	14.22			8763	27.1				
GRNL	BZ	2691	119	EP		2053	2.90	0.00							1.0
GRNL	BZ	2691	119	IAMS_20		2059	23.52			7843	30.9				
MESJ	BZ	2734	119	EP		2053	6.50	0.09							1.0
MESJ	BE	2734	119	ES		2057	28.57	-0.04							1.0
MESJ	BZ	2734	119	IAMS_20		2059	36.20			6027	21.9				
MORF	BZ	2754	121	EP		2053	8.11	-0.04							1.0
MORF	BZ	2754	121	IAMS_20		2059	53.90			6052	32.1				

November 4 2022 Hour: 0:29 21.8 Lat: 38.34N Lon: 27.20E Depth: 10F Agency: IGL Distant  
Magnitudes: 5.0Mb IGL Rms: 0.0 secs

WESTERN TURKEY Net: CSEM

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
MESJ	BZ	3089	280	EP		035	10.88	-.000							1.0
MESJ	BZ	3089	280	IAMB		035	13.82			41	1.6				

November 4 2022 Hour: 1:39 38.2 Lat: 37.30N Lon: 8.57W Depth: 7F Agency: IGL Regional  
Magnitudes: 0.6ML IGL Rms: 0.1 secs

SW MONCHIQUE, PORTUGAL Net: IMP

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
MORF	HZ	7	276	EP		139	39.74	-.120							1.0
MORF	HN	7	276	ES		139	41.330	.220							1.0
MORF	HN	7	276	IAML		139	42.04			27	0.1				
GRNL	CZ	90	0	EP		139	52.790	.060							1.0
GRNL	CE	90	0	ES		140	3.20	-.170							1.0
GRNL	CN	90	0	IAML		140	4.99			2	0.2				

November 4 2022 Hour: 3:14 49.6 Lat: 36.71N Lon: 9.68W Depth: 18F Agency: IGL Regional  
Magnitudes: 1.0ML IGL Rms: 0.1 secs

WEST OF GIBRALTAR Net: IMP

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
MORF	HZ	113	54	EP		315	7.460	.060							1.0
MORF	HN	113	54	ES		315	20.560	.170							1.0
MORF	HE	113	54	IAML		315	21.25			2	0.1				
GRNL	CZ	184	32	EP		315	15.99	-.180							1.0
GRNL	CN	184	32	ES		315	35.51	-.060							1.0
GRNL	CN	184	32	IAML		315	36.68			2	0.2				

November 4 2022 Hour: 10: 2 46.5 Lat: 28.17N Lon: 112.30W Depth: 10F Agency: IGL Distant  
Magnitudes: 6.4Ms IGL Rms: 0.1 secs

GULF OF CALIFORNIA Net: NEIC

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
GRNL	BE	9224	51	ES		1025	31.20	-.030							1.0
GRNL	BZ	9224	51	IAMs_20		1046	29.64			20978	24.9				
MESJ	BZ	9265	51	EP		1015	13.770	.130							1.0
MESJ	BE	9265	51	ES		1025	34.95	-.090							1.0
MESJ	BZ	9265	51	IAMs_20		1046	43.10			24708	32.1				

November 4 2022 Hour: 17: 7 30.1 Lat: 36.78N Lon: 10.70W Depth: 30F Agency: IGL Regional  
Magnitudes: 1.9ML IGL Rms: 0.1 secs

AZORES-CAPE ST. VINCENT RIDGE Net: IMP

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
MORF	HZ	192	72	EP		17 7	56.64	-.080							1.0
MORF	HE	192	72	ES		17 8	16.220	.060							1.0
MORF	HN	192	72	IAML		17 8	16.90			15	0.1				
GRNL	CZ	240	51	EP		17 8	2.48	-.180							1.0
GRNL	CN	240	51	ES		17 8	26.620	.180							1.0
GRNL	CN	240	51	IAML		17 8	27.80			8	0.1				
MESJ	HZ	250	61	EP		17 8	3.84	-.060							1.0
MESJ	HN	250	61	ES		17 8	28.680	.080							1.0
MESJ	HN	250	61	IAML		17 8	30.73			3	0.1				

November 4 2022 Hour: 17:25 1.5 Lat: 37.49N Lon: 9.27W Depth: 25F Agency: IGL Regional  
Magnitudes: 2.5ML IGL Rms: 0.2 secs

NW ALJEZUR, PORTUGAL Net: IMP

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
MORF	HZ	59	111	EP		1725	11.530	.150							1.0
MORF	HN	59	111	ES		1725	18.670	.050							1.0
MORF	HN	59	111	IAML		1725	20.25			373	0.2				
GRNL	CZ	92	42	EP		1725	15.85	-.190							1.0
GRNL	CE	92	42	ES		1725	26.930	.250							1.0
GRNL	CN	92	42	IAML		1725	28.38			89	0.1				
MESJ	HZ	101	67	EP		1725	16.85	-.260							1.0

November 4 2022 Hour: 22:26 51.6 Lat: 35.40N Lon: 3.60W Depth: 3F Agency: IGL Regional  
Magnitudes: 3.3ML IGL Rms: 0.1 secs

**STRAIT OF GIBRALTAR Net: MAD**

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
MESJ	HZ	494	305	EP		2227	57.85	-.030							1.0
MESJ	HE	494	305	ES		2228	46.300	.020							1.0
MESJ	HN	494	305	IAML		2228	52.73			57	0.2				
MORF	HZ	500	296	EP		2227	58.57	-.110							1.0
GRNL	CZ	536	306	EP		2228	3.000	.050							1.0
GRNL	CN	536	306	ES		2228	55.110	.070							1.0
GRNL	CE	536	306	IAML		2228	57.99			60	0.3				

November 5 2022 Hour: 0:15 3.0 Lat: 21.09S Lon: 177.69W Depth: 378F Agency: IGL Distant  
Rms: 0.0 secs

**FIJI REGION Net: NEIC**

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
GRNL	BZ17871		27	EPKpdf		034	17.480	.030							1.0
MESJ	BZ17913		26	EPKpdf		034	17.900	.030							1.0
MORF	BZ17942		28	EPKpdf		034	18.15	-.060							1.0

November 5 2022 Hour: 2:41 24.4 Lat: 35.39N Lon: 3.60W Depth: 23F Agency: IGL Regional  
Magnitudes: 2.4ML IGL Rms: 0.1 secs

**STRAIT OF GIBRALTAR Net: MAD**

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
MESJ	HZ	495	305	EP		242	29.08	-.040							1.0
MORF	HZ	501	297	EP		242	29.78	-.130							1.0
GRNL	CZ	536	306	EP		242	34.220	.030							1.0
GRNL	CE	536	306	ES		243	25.250	.140							1.0
GRNL	CE	536	306	IAML		243	27.50			7	0.3				

November 5 2022 Hour: 7: 0 55.5 Lat: 32.92N Lon: 5.07W Depth: 20F Agency: IGL Regional  
Magnitudes: 2.2ML IGL Rms: 0.1 secs

**MOROCCO Net: IMP**

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
MORF	HZ	586	327	EP		7 2	11.11	-.150							1.0
MORF	HN	586	327	ES		7 3	6.640	.050							1.0
MORF	HN	586	327	IAML		7 3	9.53			3	0.2				
MESJ	HZ	616	333	EP		7 2	14.88	-.040							1.0
GRNL	CZ	657	332	EP		7 2	20.040	.150							1.0

November 5 2022 Hour: 8: 5 12.0 Lat: 35.38N Lon: 3.58W Depth: 21F Agency: IGL Regional  
Magnitudes: 3.0ML IGL Rms: 0.1 secs

**STRAIT OF GIBRALTAR Net: MAD**

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
MESJ	HZ	496	305	EP		8 6	16.76	-.090							1.0
MORF	HZ	503	297	EP		8 6	17.63	-.000							1.0
MORF	HN	503	297	ES		8 7	5.620	.090							1.0
MORF	HN	503	297	IAML		8 7	10.24			29	0.2				
GRNL	CZ	538	306	EP		8 6	21.920	.000							1.0

November 5 2022 Hour: 20:30 47.2 Lat: 33.66N Lon: 3.79W Depth: 0 Agency: IGL Regional  
Rms: 0.1 secs

**MOROCCO Net: MAD**

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
MESJ	HZ	613	320	EP		2032	8.18	-.080							1.0
GRNL	CZ	656	320	EP		2032	13.520	.090							1.0

November 6 2022 Hour: 0:3 14.0 Lat: 2.53N Lon: 124.66E Depth:239F Agency: IGL Distant  
Rms: 0.1 secs

**CELEBES SEA Net: NEIC**

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
MESJ	BZ	13443	318	EPKP		021	37.310	.020							1.0
GRNL	BZ	13453	318	EPKP		021	37.37-	.080							1.0
MORF	BZ	13507	317	EPKP		021	38.490	.060							1.0

November 6 2022 Hour: 7:8 7.1 Lat: 17.56S Lon: 70.21W Depth: 25F Agency: IGL Distant  
Magnitudes: 4.8Mb IGL Rms: 0.1 secs

**SOUTHERN PERU Net: NEIC**

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
MORF	BZ	8853	45	EP		720	12.03-	.090							1.0
MORF	BZ	8853	45	I Amb		720	14.15			10	1.0				
GRNL	BZ	8906	45	EP		720	14.710	.090							1.0
GRNL	BZ	8906	45	I Amb		720	16.42			16	1.4				

November 6 2022 Hour: 14:26 3.6 Lat: 36.45N Lon: 8.95W Depth: 7F Agency: IGL Regional  
Rms: 0.0 secs

**WEST OF GIBRALTAR Net: MAD**

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
MESJ	HZ	168	23	EP		1426	29.190	.000							1.0

November 7 2022 Hour: 0:31 3.5 Lat: 35.47N Lon: 3.59W Depth: 1F Agency: IGL Regional  
Rms: 0.1 secs

**STRAIT OF GIBRALTAR Net: MAD**

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
MESJ	HZ	491	304	EP		032	9.670	.060							1.0
GRNL	CZ	532	305	EP		032	14.59-	.070							1.0

November 7 2022 Hour: 3:25 21.8 Lat: 37.00N Lon: 71.09E Depth: 77F Agency: IGL Distant  
Magnitudes: 5.6Mb IGL Rms: 0.1 secs

**HINDU KUSH REGION, AFGHANISTAN Net: NEIC**

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
MESJ	BZ	6791	297	EP		335	27.830	.140							1.0
MESJ	BZ	6791	297	I Amb		335	29.98			40	0.4				
GRNL	BZ	6806	298	EP		335	28.42-	.140							1.0
GRNL	BZ	6806	298	I Amb		335	30.40			22	0.8				

November 7 2022 Hour: 4:32 35.6 Lat: 36.54N Lon: 11.27W Depth: 31F Agency: IGL Regional  
Magnitudes: 4.1ML IGL Rms: 0.1 secs

**AZORES-CAPE ST. VINCENT RIDGE Net: IMP**

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
MORF	HZ	248	69	EP		433	8.44-	.050							1.0
MORF	HN	248	69	ES		433	32.40-	.080							1.0
MORF	HN	248	69	I AML		433	37.41			1616	0.3				
GRNL	CZ	296	53	EP		433	14.520	.130							1.0
GRNL	CN	296	53	ES		433	42.870	.180							1.0
GRNL	CN	296	53	I AML		433	45.61			1428	0.4				
MESJ	HZ	307	61	EP		433	15.61-	.130							1.0
MESJ	HN	307	61	ES		433	44.99-	.040							1.0
MESJ	HN	307	61	I AML		433	48.86			283	0.2				

November 7 2022 Hour: 6:31 42.7 Lat: 36.62N Lon: 9.78W Depth: 14F Agency: IGL Regional  
Magnitudes: 1.7ML IGL Rms: 0.1 secs

**WEST OF GIBRALTAR Net: MAD**

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
MORF	HZ	126	53	EP		632	2.25-	.090							1.0
MORF	HN	126	53	ES		632	16.910	.190							1.0
MORF	HN	126	53	I AML		632	17.88			12	0.1				
MESJ	HZ	193	45	EP		632	10.67-	.050							1.0
GRNL	CZ	197	33	EP		632	11.07-	.050							1.0



November 8 2022 Hour: 4:26 1.0 Lat: 35.46N Lon: 3.61W Depth: 0 Agency: IGL Regional  
Rms: 0.0 secs

**STRAIT OF GIBRALTAR Net: MAD**

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
MESJ	HZ	489	304	EP		427	7.06	-.000							1.0
GRNL	CZ	531	305	EP		427	12.120	.000							1.0

November 8 2022 Hour: 20:27 23.3 Lat: 29.27N Lon: 81.15E Depth: 18F Agency: IGL Distant  
Magnitudes: 5.8Mb IGL Rms: 0.1 secs

**NEPAL Net: NEIC**

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
MESJ	BZ	8037	304	EP		2038	47.820	.130							1.0
MESJ	BZ	8037	304	IAmb		2038	53.80			98	0.9				
GRNL	BZ	8054	304	EP		2038	48.580	.030							1.0
GRNL	BZ	8054	304	IAmb		2038	54.83			147	1.3				
GGNV	BZ	8073	305	EP		2038	49.47	-.090							1.0
GGNV	BZ	8073	305	IAmb		2038	51.89			175	1.3				
MORF	BZ	8096	303	EP		2038	50.84	-.070							1.0
MORF	BZ	8096	303	IAmb		2038	53.02			88	1.2				

November 9 2022 Hour: 1:15 10.5 Lat: 4.22S Lon: 80.50W Depth: 43F Agency: IGL Distant  
Magnitudes: 5.3Mb IGL Rms: 0.1 secs

**PERU-ECUADOR BORDER REGION Net: NEIC**

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
MORF	BZ	8711	51	EP		127	5.96	-.100							1.0
MORF	BZ	8711	51	IAmb		127	7.96			52	1.2				
GRNL	BZ	8740	50	EP		127	7.560	.100							1.0
GRNL	BZ	8740	50	IAmb		127	9.49			27	1.1				

November 9 2022 Hour: 3:36 23.6 Lat: 36.69N Lon: 7.80W Depth: 25F Agency: IGL Regional  
Magnitudes: 2.3ML IGL Rms: 0.1 secs

**STRAIT OF GIBRALTAR Net: MAD**

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
MORF	HZ	102	312	EP		336	39.52	-.030							1.0
MESJ	HZ	133	344	EP		336	43.470	.100							1.0
MESJ	HN	133	344	ES		336	57.70	-.060							1.0
MESJ	HE	133	344	IAML		336	59.16			45	0.1				
GRNL	CZ	172	337	EP		336	48.230	.080							1.0
GRNL	CN	172	337	ES		337	5.95	-.090							1.0
GRNL	CN	172	337	IAML		337	8.85			33	0.2				

November 9 2022 Hour: 6: 7 26.4 Lat: 43.93N Lon: 13.31E Depth: 10F Agency: IGL Distant  
Magnitudes: 5.8Ms IGL Rms: 0.1 secs

**CENTRAL ITALY Net: NEIC**

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
MESJ	BZ	1929	257	EP		611	28.820	.090							1.0
MESJ	BE	1929	257	ES		614	43.050	.090							1.0
MESJ	BN	1929	257	IAMs_20		619	3.00			31494	12.4				
GRNL	BZ	1943	258	EP		611	30.10	-.180							1.0
GRNL	BN	1943	258	IAMs_20		619	7.05			35974	13.0				

November 9 2022 Hour: 9:38 42.9 Lat: 25.97S Lon: 178.36E Depth: 629F Agency: IGL Distant  
Rms: 0.1 secs

**SOUTH OF FIJI ISLANDS Net: NEIC**

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
GGNV	BZ	18445	25	EPKPdf		957	36.450	.110							1.0
GGNV	BZ	18445	25	EPKPab		958	40.59	-.210							0.9
GRNL	BZ	18529	24	EPKPdf		957	37.170	.220							0.9
GRNL	BZ	18529	24	EPKPab		958	44.190	.040							1.0
MESJ	BZ	18570	24	EPKPdf		957	37.290	.060							1.0
MESJ	BZ	18570	24	EPKPab		958	45.790	.010							1.0
MORF	BZ	18604	26	EPKPdf		957	37.49	-.020							1.0
MORF	BZ	18604	26	EPKPab		958	46.99	-.220							0.9

November 9 2022 Hour: 9:51 4.5 Lat: 26.11S Lon: 178.35E Depth:653F Agency: IGL Distant  
Rms: 0.1 secs

**SOUTH OF FIJI ISLANDS Net: CSEM**

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
GRNL	BZ	18543	24	EPK	pdf	10	9	56.23	-	.030					1.0
GRNL	BZ	18543	24	EPK	Pab	10	11	4.03	-	.150					1.0
MESJ	BZ	18584	24	EPK	pdf	10	9	56.620		.080					1.0
MESJ	BZ	18584	24	EPK	Pab	10	11	5.870		.050					1.0
MORF	BZ	18618	26	EPK	pdf	10	9	56.860		.040					1.0

November 9 2022 Hour: 10:14 33.8 Lat: 25.59S Lon: 178.28E Depth:624F Agency: IGL Distant  
Rms: 0.1 secs

**SOUTH OF FIJI ISLANDS Net: NEIC**

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
GRNL	BZ	18494	23	EPK	pdf	10	33	28.150		.090					1.0
GRNL	BZ	18494	23	EPK	Pab	10	34	34.06	-	.010					1.0
MESJ	BZ	18534	23	EPK	pdf	10	33	28.410		.050					1.0
MESJ	BZ	18534	23	EPK	Pab	10	34	35.60	-	.090					1.0
MORF	BZ	18569	25	EPK	pdf	10	33	28.700		.050					1.0
MORF	BZ	18569	25	EPK	Pab	10	34	37.06	-	.100					1.0

November 10 2022 Hour: 4:52 41.4 Lat: 35.94N Lon: 7.73W Depth: 30F Agency: IGL Regional  
Magnitudes: 1.6ML IGL  
Rms: 0.1 secs

**STRAIT OF GIBRALTAR Net: MAD**

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
MORF	HZ	172	332	EP		453	5.58	-	.060						1.0
MESJ	HZ	215	348	EP		453	10.940		.010						1.0
MESJ	HN	215	348	ES		453	32.630		.150						1.0
MESJ	HN	215	348	IAML		453	33.97			3	0.1				
GRNL	CZ	252	343	EP		453	15.33	-	.150						1.0
GRNL	CN	252	343	ES		453	40.400		.050						1.0
GRNL	CN	252	343	IAML		453	40.97			5	0.1				

November 10 2022 Hour: 5:1 7.7 Lat: 28.41N Lon: 94.37E Depth: 21F Agency: IGL Distant  
Magnitudes: 5.4Ms IGL  
Rms: 0.1 secs

**ARUNACHAL PRADESH, INDIA Net: NEIC**

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
MESJ	BZ	9135	309	EP		513	27.020		.040						1.0
MESJ	BN	9135	309	ES		523	41.330		.060						1.0
MESJ	BZ	9135	309	IAMs_20		553	29.73			1395	21.4				
GRNL	BZ	9147	309	EP		513	27.550		.040						1.0
GRNL	BE	9147	309	ES		523	42.420		.100						1.0
GRNL	BZ	9147	309	IAMs_20		556	36.94			1596	14.8				
MORF	BZ	9198	308	EP		513	29.73	-	.260						1.0
MORF	BZ	9198	308	IAMs_20		554	17.06			2169	22.4				

November 10 2022 Hour: 5:40 48.7 Lat: 35.42N Lon: 3.61W Depth: 14F Agency: IGL Regional  
Magnitudes: 2.7ML IGL  
Rms: 0.1 secs

**STRAIT OF GIBRALTAR Net: MAD**

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
MESJ	HZ	492	304	EP		541	53.52	-	.130						1.0
MESJ	HN	492	304	ES		542	41.290		.220						1.0
MESJ	HN	492	304	IAML		542	43.22			15	0.3				
MORF	HZ	499	296	EP		541	54.35	-	.120						1.0
GRNL	CZ	534	305	EP		541	58.69	-	.020						1.0
GRNL	CN	534	305	ES		542	49.880		.050						1.0
GRNL	CN	534	305	IAML		542	53.35			14	0.5				

November 10 2022 Hour: 19:52 35.1 Lat: 36.98N Lon: 9.16W Depth: 27F Agency: IGL Regional  
Magnitudes: 1.3ML IGL Rms: 0.1 secs

WEST OF GIBRALTAR Net: MAD

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
MORF	HZ	58	51	EP		1952	45.140	.140							1.0
MORF	HE	58	51	ES		1952	52.310	.110							1.0
MORF	HN	58	51	IAML		1952	53.06		15	0.1					
MESJ	HZ	127	41	EP		1952	53.74	-.170							1.0
MESJ	HE	127	41	ES		1953	7.56	-.060							1.0
MESJ	HE	127	41	IAML		1953	8.30		2	0.1					
GRNL	CN	136	23	ES		1953	9.51	-.040							1.0
GRNL	CN	136	23	IAML		1953	11.00		8	0.0					

November 11 2022 Hour: 0:56 17.7 Lat: 36.53N Lon: 7.61W Depth: 32F Agency: IGL Regional  
Magnitudes: 2.4ML IGL Rms: 0.1 secs

WEST OF GIBRALTAR Net: MAD

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
MORF	HZ	127	313	EP		056	36.260	.020							1.0
MESJ	HZ	155	340	EP		056	39.890	.100							1.0
MESJ	HN	155	340	ES		056	55.88	-.000							1.0
MESJ	HE	155	340	IAML		056	57.52		30	0.1					
GRNL	CZ	195	335	EP		056	44.750	.060							1.0
GRNL	CN	195	335	ES		057	4.19	-.180							1.0
GRNL	CN	195	335	IAML		057	6.36		52	0.2					

November 11 2022 Hour: 1:1 39.3 Lat: 36.54N Lon: 7.59W Depth: 22F Agency: IGL Regional  
Magnitudes: 2.1ML IGL Rms: 0.1 secs

WEST OF GIBRALTAR Net: MAD

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
MORF	HZ	127	312	EP		1 1	58.43	-.110							1.0
MESJ	HZ	155	339	EP		1 2	2.060	.160							1.0
MESJ	HN	155	339	ES		1 2	18.28	-.100							1.0
MESJ	HN	155	339	IAML		1 2	21.27		20	0.2					
GRNL	CZ	194	334	EP		1 2	6.910	.060							1.0

November 11 2022 Hour: 2:35 10.8 Lat: 36.53N Lon: 7.55W Depth: 30F Agency: IGL Regional  
Rms: 0.1 secs

WEST OF GIBRALTAR Net: MAD

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
MORF	HZ	131	312	EP		235	29.77	-.110							1.0
MESJ	HZ	157	338	EP		235	33.150	.010							1.0
GRNL	CZ	197	333	EP		235	38.220	.110							1.0

November 11 2022 Hour: 10:48 46.3 Lat: 19.32S Lon: 172.10W Depth: 25F Agency: IGL Distant  
Magnitudes: 7.8Ms IGL Rms: 0.1 secs

TONGA REGION Net: NEIC

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
GGNV	BZ17323	34	EPKp $\bar{d}$ f			11 8	37.14	-.050							1.0
GGNV	BZ17323	34	EPP			1112	41.020	.010							1.0
GGNV	BZ17323	34	IAMs_20			1214	47.92		149000	21.4					
GRNL	BZ17407	34	EPKp $\bar{d}$ f			11 8	38.08	-.130							1.0
GRNL	BZ17407	34	EPP			1112	45.20	-.030							1.0
GRNL	BZ17407	34	IAMs_20			12 8	58.70		165000	21.8					
MESJ	BZ17450	34	EPKp $\bar{d}$ f			11 8	38.760	.040							1.0
MESJ	BZ17450	34	EPP			1112	47.420	.060							1.0
MESJ	BZ17450	34	IAMs_20			12 9	10.11		170000	25.1					
MORF	BZ17467	35	EPKp $\bar{d}$ f			11 8	39.120	.140							1.0
MORF	BZ17467	35	EPP			1112	48.26	-.040							1.0
MORF	BZ17467	35	IAMs_20			1212	7.66		143000	22.0					

November 11 2022 Hour: 18:11 7.4 Lat: 38.75N Lon: 9.76W Depth: 9F Agency: IGL Regional  
Magnitudes: 1.8ML IGL Rms: 0.1 secs

W CASCAIS, PORTUGAL Net: MAD

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
GRNL	CZ	127	124	EP		1811	27.41	-.020							1.0
GRNL	CN	127	124	ES		1811	42.200	.160							1.0
GRNL	CN	127	124	IAML		1811	46.20			27	0.2				
MESJ	HZ	169	126	EP		1811	32.92	-.020							1.0
MESJ	HE	169	126	ES		1811	51.740	.170							1.0
MESJ	HN	169	126	IAML		1811	52.97			4	0.2				
MORF	HZ	188	148	EP		1811	35.14	-.210							1.0
MORF	HE	188	148	ES		1811	55.66	-.100							1.0
MORF	HN	188	148	IAML		1811	57.79			12	0.2				

November 11 2022 Hour: 23:28 30.4 Lat: 36.92N Lon: 10.56W Depth: 1 Agency: IGL Regional  
Magnitudes: 1.1ML IGL Rms: 0.0 secs

WEST OF GIBRALTAR Net: MAD

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
MORF	HZ	175	75	EP		2328	57.36	-.030							1.0
MORF	HE	175	75	ES		2329	17.11	-.020							1.0
MORF	HN	175	75	IAML		2329	18.54			2	0.1				
GRNL	CZ	220	53	EP		2329	2.990	.050							1.0

November 12 2022 Hour: 2:45 5.0 Lat: 37.72N Lon: 8.30W Depth: 18F Agency: IGL Regional  
Magnitudes: 1.5ML IGL Rms: 0.3 secs

NW OURIQUE, PORTUGAL Net: MAD

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
MESJ	HZ	15	28	EP		245	8.900	.200							1.0
MESJ	HN	15	28	ES		245	11.440	.050							1.0
MESJ	HE	15	28	IAML		245	11.66			66	0.1				
GRNL	CZ	49	331	EP		245	12.86	-.370							1.0
GRNL	CE	49	331	ES		245	18.79	-.430							1.0
GRNL	CN	49	331	IAML		245	19.63			33	0.1				
MORF	HZ	56	214	EP		245	14.820	.500							1.0
MORF	HN	56	214	ES		245	21.170	.050							1.0
MORF	HN	56	214	IAML		245	22.39			36	0.1				

November 12 2022 Hour: 4:39 46.4 Lat: 14.24N Lon: 90.78W Depth: 91F Agency: IGL Distant  
Magnitudes: 5.4Ms IGL Rms: 0.1 secs

GUATEMALA Net: CSEM

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
GRNL	BZ	8380	54	EP		451	19.850	.050							1.0
GRNL	BZ	8380	54	EpP		451	43.300	.150							1.0
GRNL	BZ	8380	54	IAMs_20		515	47.25			2688	25.1				
MORF	BZ	8383	55	EP		451	19.95	-.080							1.0
MORF	BZ	8383	55	EpP		451	43.32	-.060							1.0
MORF	BZ	8383	55	IAMs_20		515	38.90			2265	21.5				
MESJ	BZ	8414	54	EpP		451	44.87	-.060							1.0
MESJ	BZ	8414	54	IAMs_20		515	54.50			2181	27.3				

November 12 2022 Hour: 7:9 14.2 Lat: 20.12S Lon: 178.36W Depth: 587F Agency: IGL Distant  
Rms: 0.1 secs

FIJI REGION Net: NEIC

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
GGNV	BZ17721	24	EPKpdf			728	5.400	.060							1.0
GGNV	BZ17721	24	EPKPab			728	47.370	.210							1.0
GRNL	BZ17805	24	EPKpdf			728	6.300	.090							1.0
GRNL	BZ17805	24	EPKPab			728	50.33	-.160							1.0
MESJ	BZ17846	24	EPKpdf			728	6.720	.090							1.0
MESJ	BZ17846	24	EPKPab			728	51.99	-.130							1.0
MORF	BZ17879	25	EPKpdf			728	7.00	-.000							1.0
MORF	BZ17879	25	EPKPab			728	53.33	-.150							1.0

November 12 2022 Hour: 14:27 5.0 Lat: 29.33N Lon: 81.17E Depth: 10F Agency: IGL Distant  
Magnitudes: 5.4Mb IGL Rms: 0.0 secs

NET: NEIC

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
MESJ	BZ	8035	304	EP		1438	30.59	-.030							1.0
MESJ	BZ	8035	304	IAMB		1438	37.97			44	1.3				
GRNL	BZ	8051	304	EP		1438	31.51	0.030							1.0
GRNL	BZ	8051	304	IAMB		1438	37.66			46	1.5				

November 12 2022 Hour: 19:4 27.0 Lat: 36.77N Lon: 10.97W Depth: 0 Agency: IGL Regional  
Magnitudes: 1.7ML IGL Rms: 0.1 secs

WEST OF GIBRALTAR Net: MAD

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
MORF	HZ	215	73	EP		19 4	59.08	-.030							1.0
MORF	HN	215	73	ES		19 5	22.53	-.040							1.0
MORF	HE	215	73	IAML		19 5	24.15			5	0.1				
GRNL	CZ	259	54	EP		19 5	4.51	-.120							1.0
GRNL	CN	259	54	ES		19 5	32.30	0.190							1.0
GRNL	CE	259	54	IAML		19 5	35.07			5	0.2				

November 12 2022 Hour: 20:22 2.6 Lat: 37.08N Lon: 8.77W Depth: 25F Agency: IGL Regional  
Magnitudes: 0.7ML IGL Rms: 0.1 secs

WEST OF GIBRALTAR Net: MAD

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
MORF	HZ	27	22	EP		2022	8.37	-.090							1.0
MORF	HN	27	22	ES		2022	12.80	0.090							1.0
MORF	HE	27	22	IAML		2022	14.97			8	0.3				

November 13 2022 Hour: 2:8 7.2 Lat: 34.34N Lon: 26.49E Depth: 10F Agency: IGL Distant  
Magnitudes: 4.3Mb IGL Rms: 0.0 secs

CRETE, GREECE Net: NEIC

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
MESJ	BZ	3132	287	EP		213	59.78	0.000							1.0
MESJ	BZ	3132	287	IAMB		214	2.00			4	0.8				

November 13 2022 Hour: 2:24 58.1 Lat: 37.46S Lon: 73.74W Depth: 18F Agency: IGL Distant  
Rms: 0.1 secs

BIO-BIO, CHILE Net: NEIC

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
MORF	BZ10633	47	EP			238	22.34	0.150							1.0
MORF	BZ10633	47	EPP			242	13.40	-.160							1.0
GRNL	BZ10699	46	EP			238	24.91	0.100							1.0
GRNL	BZ10699	46	EPP			242	18.16	0.010							1.0
MESJ	BZ10701	46	EP			238	24.91	0.000							1.0
MESJ	BZ10701	46	EPP			242	18.16	-.130							1.0
GGNV	BZ10709	45	EP			238	25.39	0.220							1.0
GGNV	BZ10709	45	EPP			242	18.62	-.190							1.0

November 13 2022 Hour: 4:38 41.4 Lat: 36.62N Lon: 9.87W Depth: 31F Agency: IGL Regional  
Magnitudes: 2.3ML IGL Rms: 0.0 secs

WEST OF GIBRALTAR Net: MAD

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
MORF	HZ	132	55	EP		438	59.86	-.030							1.0
MORF	HN	132	55	ES		439	13.38	0.010							1.0
MORF	HN	132	55	IAML		439	14.48			52	0.1				
MESJ	HZ	199	47	EP		439	8.20	0.020							1.0
MESJ	HE	199	47	ES		439	27.75	0.030							1.0
MESJ	HE	199	47	IAML		439	28.70			13	0.1				
GRNL	CZ	201	35	EP		439	8.45	0.030							1.0
GRNL	CN	201	35	ES		439	28.08	-.060							1.0
GRNL	CN	201	35	IAML		439	29.20			37	0.1				

November 13 2022 Hour: 5:24 28.4 Lat: 36.90N Lon: 9.02W Depth: 29F Agency: IGL Regional  
Magnitudes: 1.5ML IGL Rms: 0.1 secs

WEST OF GIBRALTAR Net: MAD

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
MORF	HZ	55	36	EP		524	38.090	.110							1.0
MORF	HE	55	36	ES		524	44.79	-.160							1.0
MORF	HE	55	36	IAML		524	45.29		22	0.1					
MESJ	HZ	126	34	EP		524	46.990	.070							1.0
GRNL	CZ	139	16	EP		524	48.62	-.010							1.0

November 13 2022 Hour: 18:44 35.4 Lat: 37.63N Lon: 8.40W Depth: 12F Agency: IGL Regional  
Magnitudes: 1.2ML IGL Rms: 0.1 secs

W OURIQUE, PORTUGAL Net: MAD

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
MESJ	HZ	27	34	EP		1844	40.340	.050							1.0
MORF	HZ	43	212	EP		1844	42.59	-.100							1.0
GRNL	CZ	55	344	EP		1844	44.470	.060							1.0
GRNL	CN	55	344	ES		1844	50.95	-.010							1.0
GRNL	CN	55	344	IAML		1844	51.44		14	0.1					

November 14 2022 Hour: 2:32 53.4 Lat: 35.48N Lon: 3.60W Depth: 20F Agency: IGL Regional  
Rms: 0.0 secs

STRAIT OF GIBRALTAR Net: MAD

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
MESJ	HZ	489	304	EP		233	57.43	-.030							1.0
GRNL	CZ	531	305	EP		234	2.550	.040							1.0

November 14 2022 Hour: 5:4 11.8 Lat: 26.04S Lon: 178.23E Depth: 627F Agency: IGL Distant  
Rms: 0.1 secs

SOUTH OF FIJI ISLANDS Net: NEIC

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
GRNL	BZ18541	24	EP	KPdf		523	6.140	.020							1.0
MESJ	BZ18582	23	EP	KPdf		523	6.510	.100							1.0
MORF	BZ18616	26	EP	KPdf		523	6.56	-.130							1.0

November 14 2022 Hour: 8:8 26.8 Lat: 33.80N Lon: 137.25E Depth: 357F Agency: IGL Distant  
Rms: 0.1 secs

NEAR SOUTH COAST OF HONSHU, JAPAN Net: NEIC

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
GRNL	BZ11312	333	EP			821	39.18	-0.09							1.0
MESJ	BZ11323	333	EP			821	39.71	-0.03							1.0
MESJ	BZ11323	333	EPP			825	55.77	0.17							0.9
MORF	BZ11394	333	EP			821	42.55	-0.05							1.0
MORF	BZ11394	333	EPP			826	0.38	0.01							1.0

November 14 2022 Hour: 19:35 47.6 Lat: 36.53N Lon: 9.79W Depth: 32F Agency: IGL Regional  
Magnitudes: 1.3ML IGL Rms: 0.1 secs

WEST OF GIBRALTAR Net: IMP

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
MORF	HZ	133	49	EP		1936	7.000	.140							1.0
MORF	HN	133	49	ES		1936	20.920	.010							1.0
MORF	HN	133	49	IAML		1936	22.95		5	0.2					
GRNL	CZ	206	31	EP		1936	15.77	-.120							1.0
GRNL	CN	206	31	ES		1936	36.50	-.040							1.0
GRNL	CN	206	31	IAML		1936	37.27		2	0.1					

November 16 2022 Hour: 12:17 14.3 Lat: 36.41N Lon: 9.75W Depth: 12F Agency: IGL Regional  
Magnitudes: 2.1ML IGL Rms: 0.1 secs

WEST OF GIBRALTAR Net: IMP

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
MORF	HZ	140	44	EP		1217	36.060	.120							1.0
MORF	HN	140	44	ES		1217	51.64	-.060							1.0
MORF	HN	140	44	IAML		1217	53.89		27	0.1					

MESJ HZ	209	40	EP	1217	44.670.130														1.0
MESJ HN	209	40	ES	1218	6.670.080														1.0
MESJ HN	209	40	IAML	1218	8.82				9	0.1									
GRNL CZ	216	29	EP	1217	45.15-.210														1.0
GRNL CN	216	29	ES	1218	7.95-.060														1.0
GRNL CN	216	29	IAML	1218	11.31				31	0.3									

**November 16 2022 Hour: 21:32 44.3 Lat: 31.62N Lon: 103.99W Depth: 8F Agency: IGL Distant**  
**Magnitudes: 5.5Ms IGL Rms: 0.1 secs**

**WESTERN TEXAS Net: NEIC**

STAT CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
GRNL BZ	8353	54	EP		2144	27.130.070								1.0
GRNL BZ	8353	54	IAMs_20		2214	40.68			2138	12.9				
MORF BZ	8389	55	EP		2144	29.050.030								1.0
MORF BZ	8389	55	IAMs_20		2213	52.70			2596	20.9				
MESJ BZ	8394	54	EP		2144	29.12-.100								1.0
MESJ BE	8394	54	IAMs_20		2214	42.31			1518	24.3				

**November 16 2022 Hour: 22:26 53.4 Lat: 11.70S Lon: 166.60E Depth:139F Agency: IGL Distant**  
**Rms: 0.1 secs**

**SANTA CRUZ ISLANDS Net: NEIC**

STAT CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
GRNL BZ17069	351	EPKiKP			2246	35.280.070								1.0
MESJ BZ17092	351	EPKiKP			2246	35.64-.020								1.0
MORF BZ17158	351	EPKiKP			2246	36.88-.050								1.0

**November 17 2022 Hour: 9:15 42.8 Lat: 35.52N Lon: 3.61W Depth: 0 Agency: IGL Regional**  
**Magnitudes: 2.7ML IGL Rms: 0.1 secs**

**STRAIT OF GIBRALTAR Net: MAD**

STAT CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
MESJ HZ	486	303	EP		916	48.41-.080								1.0
MESJ HN	486	303	ES		917	36.43-.010								1.0
MESJ HE	486	303	IAML		917	38.59			9	0.4				
MORF HZ	494	295	EP		916	49.42-.060								1.0
GRNL CZ	528	304	EP		916	53.660.120								1.0
GRNL CN	528	304	ES		917	45.200.030								1.0
GRNL CN	528	304	IAML		917	51.02			21	0.4				

**November 17 2022 Hour: 9:56 59.6 Lat: 35.54N Lon: 3.61W Depth: 0 Agency: IGL Regional**  
**Rms: 0.0 secs**

**STRAIT OF GIBRALTAR Net: MAD**

STAT CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
MESJ HZ	485	303	EP		958	5.080.000								1.0

**November 17 2022 Hour: 10: 0 21.7 Lat: 35.52N Lon: 3.59W Depth: 0 Agency: IGL Regional**  
**Rms: 0.1 secs**

**STRAIT OF GIBRALTAR Net: MAD**

STAT CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
MESJ HZ	487	303	EP		10 1	27.510.070								1.0
GRNL CZ	529	304	EP		10 1	32.41-.070								1.0

**November 17 2022 Hour: 10:11 36.0 Lat: 36.72N Lon: 11.15W Depth: 17F Agency: IGL Regional**  
**Magnitudes: 2.3ML IGL Rms: 0.0 secs**

**AZORES-CAPE ST. VINCENT RIDGE Net: IMP**

STAT CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
MORF HZ	231	73	EP		1012	8.50-.010								1.0
MORF HE	231	73	ES		1012	32.280.010								1.0
MORF HN	231	73	IAML		1012	34.89			20	0.3				

November 17 2022 Hour: 11: 7 12.1 Lat: 35.50N Lon: 3.61W Depth: 3F Agency: IGL Regional  
Rms: 0.1 secs

**STRAIT OF GIBRALTAR Net: MAD**

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
MESJ	HZ	487	303	EP		11 8	17.52	-.060							1.0
MORF	HZ	495	295	EP		11 8	18.51	-.040							1.0
GRNL	CZ	529	305	EP		11 8	22.730	.100							1.0

November 17 2022 Hour: 12:34 16.1 Lat: 35.47N Lon: 3.68W Depth: 0 Agency: IGL Regional  
Rms: 0.1 secs

**STRAIT OF GIBRALTAR Net: MAD**

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
MESJ	HZ	484	304	EP		1235	21.590	.070							1.0
GRNL	CZ	526	305	EP		1235	26.50	-.080							1.0

November 17 2022 Hour: 13:59 33.0 Lat: 26.97N Lon: 55.23E Depth: 10F Agency: IGL Distant  
Magnitudes: 5.2Mb IGL Rms: 0.0 secs

**SOUTHERN IRAN Net: NEIC**

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
GRNL	BZ	6005	299	EP		14 8	57.110	.000							1.0
GRNL	BZ	6005	299	IAMB		14 8	59.05			25	1.1				

November 17 2022 Hour: 15:54 20.1 Lat: 38.15N Lon: 8.25W Depth: 2F Agency: IGL Regional  
Magnitudes: 0.7ML IGL Rms: 0.1 secs

**NW FERREIRA DO ALENTEJO, PORTUGAL Net: IMP**

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
GRNL	CZ	28	261	EP		1554	24.880	.140							1.0
GRNL	CE	28	261	ES		1554	27.93	-.170							1.0
GRNL	CE	28	261	IAML		1554	28.55			17	0.1				
MESJ	HZ	35	176	EP		1554	25.880	.140							1.0
MESJ	HE	35	176	ES		1554	29.73	-.100							1.0
MESJ	HN	35	176	IAML		1554	29.96			6	0.1				

November 17 2022 Hour: 20:22 34.9 Lat: 35.51N Lon: 3.61W Depth: 6F Agency: IGL Regional  
Magnitudes: 3.0ML IGL Rms: 0.1 secs

**STRAIT OF GIBRALTAR Net: MAD**

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
MESJ	HZ	486	303	EP		2023	39.95	-.050							1.0
MORF	HZ	494	295	EP		2023	40.93	-.060							1.0
GRNL	CZ	528	304	EP		2023	45.03	-.020							1.0
GRNL	CN	528	304	ES		2024	36.380	.140							1.0
GRNL	CE	528	304	IAML		2024	39.30			24	0.2				

November 17 2022 Hour: 23:43 23.1 Lat: 37.36N Lon: 8.44W Depth: 2F Agency: IGL Regional  
Magnitudes: 2.1ML IGL Rms: 0.1 secs

**NE MONCHIQUE, PORTUGAL Net: IMP**

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
MORF	HZ	20	252	EP		2343	26.24	-.190							1.0
MORF	HE	20	252	ES		2343	28.960	.130							1.0
MORF	HE	20	252	IAML		2343	29.17			739	0.2				
MESJ	HZ	56	20	EP		2343	32.450	.220							1.0
GRNL	CZ	84	352	EP		2343	36.54	-.100							1.0
GRNL	CN	84	352	ES		2343	46.42	-.070							1.0
GRNL	CN	84	352	IAML		2343	48.46			42	0.2				

November 18 2022 Hour: 0: 3 8.4 Lat: 61.38N Lon: 150.19W Depth: 47F Agency: IGL Distant  
Magnitudes: 5.2Mb IGL Rms: 0.0 secs

**SOUTHERN ALASKA Net: NEIC**

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
GRNL	BZ	8445	30	EP		014	50.36	-.000							1.0
GRNL	BZ	8445	30	IAMB		014	51.10			33	1.0				



November 18 2022 Hour: 1:18 24.4 Lat: 38.57N Lon: 7.92W Depth: 10F Agency: IGL Regional  
Magnitudes: 1.1ML IGL Rms: 0.1 secs

NW EVORA, PORTUGAL Net: IMP

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
GRNL	CZ	77	228	EP		118	36.930	.200							1.0
GRNL	CE	77	228	ES		118	45.70	-.070							1.0
GRNL	CN	77	228	IAML		118	47.87			5	0.1				
MESJ	HE	85	198	ES		118	47.93	-.130							1.0
MESJ	HN	85	198	IAML		118	49.33			7	0.2				

November 18 2022 Hour: 4:9 10.7 Lat: 38.34N Lon: 7.99W Depth: 0 Agency: IGL Regional  
Magnitudes: 0.5ML IGL Rms: 0.1 secs

NE VIANA DO ALENTEJO, PORTUGAL Net: IMP

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
GRNL	CZ	57	243	EP		4 9	19.900	.090							1.0
GRNL	CN	57	243	ES		4 9	26.39	-.090							1.0
GRNL	CN	57	243	IAML		4 9	26.89			3	0.2				

November 18 2022 Hour: 20:20 7.3 Lat: 35.43N Lon: 3.62W Depth: 15F Agency: IGL Regional  
Rms: 0.1 secs

STRAIT OF GIBRALTAR Net: MAD

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
MESJ	HZ	491	304	EP		2021	11.93	-.110							1.0
GRNL	CZ	533	305	EP		2021	17.210	.110							1.0

November 18 2022 Hour: 22:42 32.6 Lat: 35.47N Lon: 3.62W Depth: 7F Agency: IGL Regional  
Rms: 0.0 secs

STRAIT OF GIBRALTAR Net: MAD

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
GRNL	CZ	530	305	EP		2243	42.870	.000							1.0

November 18 2022 Hour: 23:32 42.1 Lat: 35.43N Lon: 3.61W Depth: 5F Agency: IGL Regional  
Magnitudes: 3.5ML IGL Rms: 0.1 secs

STRAIT OF GIBRALTAR Net: MAD

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
MESJ	HZ	492	304	EP		2333	47.98	-.010							1.0
MORF	HZ	498	296	EP		2333	48.74	-.080							1.0
GRNL	CZ	534	305	EP		2333	53.070	.020							1.0
GRNL	CN	534	305	ES		2334	44.880	.070							1.0
GRNL	CN	534	305	IAML		2334	49.18			83	0.3				

November 19 2022 Hour: 0:8 51.7 Lat: 35.44N Lon: 3.66W Depth: 4F Agency: IGL Regional  
Rms: 0.1 secs

STRAIT OF GIBRALTAR Net: MAD

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
MESJ	HZ	486	304	EP		0 9	56.92	-.040							1.0
MORF	HZ	493	296	EP		0 9	57.71	-.060							1.0
GRNL	CZ	528	305	EP		010	2.130	.110							1.0

November 19 2022 Hour: 4:53 28.7 Lat: 36.57N Lon: 9.82W Depth: 10F Agency: IGL Regional  
Magnitudes: 2.7ML IGL Rms: 0.1 secs

WEST OF GIBRALTAR Net: IMP

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
MORF	HZ	132	52	EP		453	49.520	.070							1.0
MORF	HN	132	52	ES		454	4.55	-.070							1.0
MORF	HN	132	52	IAML		454	6.40			142	0.3				
MESJ	HZ	200	45	EP		453	57.88	-.040							1.0
MESJ	HN	200	45	ES		454	19.370	.090							1.0
MESJ	HN	200	45	IAML		454	20.79			28	0.1				
GRNL	CZ	203	33	EP		453	58.21	-.140							1.0
GRNL	CE	203	33	ES		454	20.100	.080							1.0
GRNL	CE	203	33	IAML		454	22.75			86	0.2				

November 19 2022 Hour: 7:50 17.2 Lat: 36.68N Lon: 11.24W Depth: 31F Agency: IGL Regional  
 Magnitudes: 1.8ML IGL Rms: 0.0 secs

**AZORES-CAPE ST. VINCENT RIDGE Net: IMP**

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
MORF	HZ	240	72	EP		750	49.02	-.040							1.0
MORF	HN	240	72	ES		751	12.360	.020							1.0
MORF	HE	240	72	IAML		751	13.92			7	0.1				
GRNL	CZ	285	55	EP		750	54.49	-.030							1.0
GRNL	CE	285	55	ES		751	21.850	.060							1.0
GRNL	CE	285	55	IAML		751	23.36			4	0.1				

November 19 2022 Hour: 20:46 38.7 Lat: 35.44N Lon: 3.60W Depth: 23F Agency: IGL Regional  
 Rms: 0.1 secs

**STRAIT OF GIBRALTAR Net: MAD**

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
MESJ	HZ	491	304	EP		2047	43.070	.100							1.0
MORF	HZ	498	296	EP		2047	43.71	-.120							1.0
GRNL	CZ	533	305	EP		2047	48.060	.030							1.0

November 20 2022 Hour: 1:7 30.5 Lat: 35.46N Lon: 3.61W Depth: 9F Agency: IGL Regional  
 Rms: 0.0 secs

**STRAIT OF GIBRALTAR Net: MAD**

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
MESJ	HZ	490	304	EP		1 8	35.73	-.000							1.0
GRNL	CZ	532	305	EP		1 8	40.790	.000							1.0

November 20 2022 Hour: 14:29 27.3 Lat: 35.16N Lon: 11.70W Depth: 34F Agency: IGL Regional  
 Magnitudes: 2.0ML IGL Rms: 0.0 secs

**AZORES-CAPE ST. VINCENT RIDGE Net: IMP**

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
MORF	HZ	362	48	EP		1430	15.06	-.030							1.0
MORF	HN	362	48	ES		1430	49.96	-.010							1.0
MORF	HN	362	48	IAML		1430	50.99			5	0.1				
GRNL	CN	430	40	ES		1431	4.140	.030							1.0
GRNL	CN	430	40	IAML		1431	6.22			5	0.2				
MESJ	HE	430	45	ES		1431	4.190	.030							1.0
MESJ	HN	430	45	IAML		1431	7.02			2	0.2				
GRNL	CZ	430	40	EP		1430	23.24	-.020							1.0

November 20 2022 Hour: 18:55 9.7 Lat: 36.69N Lon: 9.74W Depth: 30F Agency: IGL Regional  
 Magnitudes: 2.2ML IGL Rms: 0.1 secs

**WEST OF GIBRALTAR Net: IMP**

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
MORF	HZ	118	55	EP		1855	27.17	-.050							1.0
MORF	HN	118	55	ES		1855	40.090	.070							1.0
MORF	HN	118	55	IAML		1855	40.75			55	0.1				
MESJ	HZ	185	46	EP		1855	35.45	-.080							1.0
MESJ	HN	185	46	ES		1855	54.620	.220							1.0
MESJ	HN	185	46	IAML		1855	56.83			17	0.1				
GRNL	CZ	188	33	EP		1855	35.70	-.170							1.0

November 20 2022 Hour: 23:24 59.1 Lat: 35.85N Lon: 26.43E Depth: 63F Agency: IGL Distant  
 Magnitudes: 5.2Mb IGL Rms: 0.1 secs

**CRETE, GREECE Net: NEIC**

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
MESJ	BZ	3081	285	EP		2330	41.590	.140							1.0
MESJ	BZ	3081	285	IAMB		2330	42.63			77	0.9				
GRNL	BZ	3108	285	EP		2330	43.57	-.040							1.0
GRNL	BZ	3108	285	IAMB		2330	45.15			114	1.6				
MORF	BZ	3126	283	EP		2330	45.05	-.090							1.0
MORF	BZ	3126	283	IAMB		2330	46.83			53	1.4				

November 22 2022 Hour: 1:050.9 Lat: 37.21N Lon: 8.70W Depth: 6F Agency: IGL Regional  
Rms: 0.1 secs

**N LAGOS, PORTUGAL Net: IMP**

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
MORF	HZ	12	20	EP		1	0	53.120	.080						1.0
MORF	HN	12	20	ES		1	0	54.54	-.080						1.0

November 22 2022 Hour: 2:37.7 Lat: 9.78S Lon: 159.61E Depth: 10F Agency: IGL Distant  
Rms: 0.0 secs

**SOLOMON ISLANDS Net: CSEM**

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
GGNV	BZ16638	343	EP	KPdf		222	51.92	-.030							1.0
GRNL	BZ16681	341	EP	KPdf		222	52.610	.040							1.0
MESJ	BZ16695	341	EP	KPdf		222	52.790	.000							1.0
MORF	BZ16765	341	EP	KPdf		222	53.80	-.020							1.0

November 22 2022 Hour: 2:859.7 Lat: 34.78N Lon: 34.68W Depth: 2F Agency: IGL Distant  
Magnitudes: 5.4Mb IGL Rms: 0.1 secs

**AZORES ISLANDS REGION Net: CSEM**

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
GGNV	BZ	2314	72	EP		213	42.390	.100							1.0
GGNV	BZ	2314	72	I	Amb	213	45.31			194	1.1				
MORF	BZ	2355	76	EP		213	46.34	-.010							1.0
MORF	BZ	2355	76	I	Amb	213	50.71			212	1.4				
GRNL	BZ	2362	73	EP		213	47.020	.020							1.0
GRNL	BZ	2362	73	I	Amb	213	50.19			429	1.9				
MESJ	BZ	2393	74	EP		213	49.84	-.120							1.0
MESJ	BZ	2393	74	I	Amb	213	54.81			143	1.1				

November 23 2022 Hour: 7:2639.9 Lat: 36.36N Lon: 9.86W Depth: 29F Agency: IGL Regional  
Magnitudes: 1.8ML IGL Rms: 0.1 secs

**WEST OF GIBRALTAR Net: IMP**

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
MORF	HZ	150	45	EP		727	1.520	.040							1.0
MORF	HN	150	45	ES		727	17.22	-.030							1.0
MORF	HN	150	45	I	AML	727	18.41			19	0.1				
MESJ	HZ	220	41	EP		727	10.080	.020							1.0
MESJ	HN	220	41	ES		727	32.210	.120							1.0
MESJ	HN	220	41	I	AML	727	35.16			5	0.2				
GRNL	CZ	226	30	EP		727	10.56	-.210							1.0
GRNL	CN	226	30	ES		727	33.380	.060							1.0
GRNL	CE	226	30	I	AML	727	34.07			5	0.2				

November 23 2022 Hour: 19:3834.7 Lat: 36.90N Lon: 8.84W Depth: 25F Agency: IGL Regional  
Magnitudes: 1.1ML IGL Rms: 0.0 secs

**WEST OF GIBRALTAR Net: IMP**

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
MORF	HZ	48	20	EP		1938	43.05	-.050							1.0
MORF	HN	48	20	ES		1938	49.280	.050							1.0
MORF	HN	48	20	I	AML	1938	50.00			10	0.2				

November 23 2022 Hour: 23:940.6 Lat: 38.07N Lon: 8.56W Depth: 2F Agency: IGL Regional  
Magnitudes: 1.3ML IGL Rms: 0.1 secs

**S GRANDOLA, PORTUGAL Net: IMP**

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
GRNL	CZ	4	349	EP		23	9	41.10	-.240						1.0
GRNL	CN	4	349	ES		23	9	41.950	.080						1.0
GRNL	CN	4	349	I	AML	23	9	42.46		244	0.1				
MESJ	HZ	40	131	EP		23	9	46.89	-.100						1.0
MESJ	HE	40	131	ES		23	9	51.800	.140						1.0
MESJ	HN	40	131	I	AML	23	9	52.66		23	0.1				
MORF	HZ	86	186	EP		23	9	54.570	.140						1.0
MORF	HE	86	186	ES		2310	4.52	-.010							1.0

MORF HN 86 186 IAML 2310 8.31 27 0.2

November 24 2022 Hour: 4:19 50.5 Lat: 37.32N Lon: 8.61W Depth: 11F Agency: IGL Regional  
Magnitudes: 0.5ML IGL Rms: 0.2 secs

NE MONCHIQUE, PORTUGAL Net: IMP

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
MORF	HZ	4	242	EP		419	52.24	-.260							1.0
MORF	HE	4	242	ES		419	54.140	.200							1.0
MORF	HE	4	242	IAML		419	54.38			56	0.1				
MESJ	HN	67	31	ES		420	9.410	.060							1.0
MESJ	HE	67	31	IAML		420	9.96			0.50	0.1				
GRNL	CN	87	2	ES		420	14.67	-.000							1.0
GRNL	CE	87	2	IAML		420	15.61			3	0.1				

November 24 2022 Hour: 6:52 7.5 Lat: 37.34N Lon: 8.55W Depth: 11F Agency: IGL Regional  
Magnitudes: 1.6ML IGL Rms: 0.2 secs

NE MONCHIQUE, PORTUGAL Net: IMP

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
MORF	HZ	10	249	EP		652	9.71	-.230							1.0
MORF	HE	10	249	ES		652	11.850	.110							1.0
MORF	HN	10	249	IAML		652	12.32			368	0.2				
MESJ	HZ	63	27	EP		652	17.830	.100							1.0
MESJ	HN	63	27	ES		652	25.07	-.150							1.0
MESJ	HE	63	27	IAML		652	26.52			7	0.1				
GRNL	CZ	86	359	EP		652	21.480	.300							1.0
GRNL	CE	86	359	ES		652	31.07	-.120							1.0
GRNL	CN	86	359	IAML		652	32.67			37	0.1				

November 24 2022 Hour: 14:25 12.2 Lat: 35.41N Lon: 3.61W Depth: 6F Agency: IGL Regional  
Rms: 0.0 secs

STRAIT OF GIBRALTAR Net: MAD

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
GRNL	CZ	534	306	EP		1426	23.09	-.000							1.0

November 25 2022 Hour: 1:21 20.1 Lat: 36.70N Lon: 9.77W Depth: 18F Agency: IGL Regional  
Magnitudes: 2.6ML IGL Rms: 0.1 secs

WEST OF GIBRALTAR Net: IMP

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
MORF	HZ	120	56	EP		121	38.930	.120							1.0
MESJ	HZ	187	47	EP		121	47.06	-.030							1.0
GRNL	CZ	189	34	EP		121	47.26	-.100							1.0
GRNL	CN	189	34	ES		122	7.250	.010							1.0
GRNL	CN	189	34	IAML		122	9.64			53	0.1				

November 25 2022 Hour: 13:46 51.5 Lat: 9.80S Lon: 159.78E Depth: 10F Agency: IGL Distant  
Rms: 0.0 secs

SOLOMON ISLANDS Net: NEIC

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
GRNL	BZ16689	341	EPKiKP			14	6	43.010	.000						1.0
MESJ	BZ16704	341	EPKiKP			14	6	43.340	.040						1.0
MORF	BZ16773	341	EPKiKP			14	6	44.61	-.040						1.0

November 25 2022 Hour: 21: 2 55.5 Lat: 35.64N Lon: 10.02W Depth: 32F Agency: IGL Regional  
Magnitudes: 1.6ML IGL Rms: 0.1 secs

AZORES-CAPE ST. VINCENT RIDGE Net: IMP

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
MORF	HZ	222	33	EP		21	3	25.83	-.060						1.0
MESJ	HZ	293	33	EP		21	3	34.720	.090						1.0
GRNL	CZ	303	25	EP		21	3	36.020	.070						1.0
GRNL	CN	303	25	ES		21	4	5.36	-.100						1.0
GRNL	CE	303	25	IAML		21	4	9.21		3	0.2				

**November 26 2022 Hour: 13:43 20.6 Lat: 37.31N Lon: 8.63W Depth: 15F Agency: IGL Regional**  
**Magnitudes: 0.9ML IGL Rms: 0.1 secs**  
**W MONCHIQUE, PORTUGAL Net: IMP**

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
MORF	HZ	2	268	EP		1343	23.150	.090							1.0
MORF	HN	2	268	ES		1343	24.80	-.090							1.0
MORF	HN	2	268	IAML		1343	25.52			50	0.1				

**November 26 2022 Hour: 18:30 27.7 Lat: 37.33N Lon: 8.54W Depth: 15F Agency: IGL Regional**  
**Magnitudes: 0.1ML IGL Rms: 0.0 secs**  
**NE MONCHIQUE, PORTUGAL Net: IMP**

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
MORF	HZ	11	255	EP		1830	30.66	-.050							1.0
MORF	HE	11	255	ES		1830	32.950	.050							1.0
MORF	HE	11	255	IAML		1830	33.14			6	0.2				

**November 26 2022 Hour: 19:15 13.3 Lat: 36.94N Lon: 8.77W Depth: 30F Agency: IGL Regional**  
**Magnitudes: 1.9ML IGL Rms: 0.1 secs**  
**WEST OF GIBRALTAR Net: IMP**

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
MORF	HZ	41	15	EP		1915	21.160	.020							1.0
MORF	HE	41	15	ES		1915	26.980	.110							1.0
MORF	HN	41	15	IAML		1915	27.84			69	0.2				
MESJ	HZ	111	26	EP		1915	29.880	.020							1.0
GRNL	CZ	130	8	EP		1915	32.10	-.190							1.0
GRNL	CE	130	8	ES		1915	46.180	.020							1.0
GRNL	CN	130	8	IAML		1915	46.58			20	0.1				

**November 26 2022 Hour: 20:9 36.8 Lat: 35.26N Lon: 27.84E Depth: 60F Agency: IGL Distant**  
**Magnitudes: 4.8Mb IGL Rms: 0.0 secs**  
**DODECANESE ISLANDS, GREECE Net: CSEM**

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
MESJ	BZ	3222	286	EP		2015	30.630	.010							1.0
MESJ	BZ	3222	286	IAMB		2015	31.53			12	0.5				

**November 27 2022 Hour: 0:55 26.0 Lat: 36.37N Lon: 8.43W Depth: 14F Agency: IGL Regional**  
**Magnitudes: 0.9ML IGL Rms: 0.1 secs**  
**WEST OF GIBRALTAR Net: IMP**

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
MORF	HZ	105	349	EP		055	42.53	-.110							1.0
GRNL	CN	193	356	ES		056	14.590	.120							1.0
GRNL	CN	193	356	IAML		056	15.76			1.00	0.1				

**November 27 2022 Hour: 4:59 55.9 Lat: 49.52N Lon: 155.43E Depth: 81F Agency: IGL Distant**  
**Magnitudes: 5.4Mb IGL Rms: 0.1 secs**  
**KURIL ISLANDS Net: NEIC**

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
MESJ	BZ10202	347	EP			512	54.22	-.060							1.0
MESJ	BZ10202	347	IAMB			512	56.39			10	0.7				
MORF	BZ10267	347	EP			512	57.110	.060							1.0
MORF	BZ10267	347	IAMB			512	58.17			11	0.6				

**November 27 2022 Hour: 6:9 57.5 Lat: 37.27N Lon: 8.11W Depth: 8F Agency: IGL Regional**  
**Magnitudes: 0.5ML IGL Rms: 0.0 secs**  
**NW LOULE, PORTUGAL Net: IMP**

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
MORF	HZ	48	275	EP		610	5.34	-.030							1.0
MORF	HN	48	275	ES		610	11.130	.030							1.0
MORF	HN	48	275	IAML		610	11.73			3	0.2				

November 27 2022 Hour: 14:17 49.3 Lat: 36.65N Lon: 9.76W Depth: 12F Agency: IGL Regional  
Magnitudes: 1.2ML IGL Rms: 0.1 secs

WEST OF GIBRALTAR Net: IMP

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
MORF	HZ	123	54	EP		1418	8.730	.120							1.0
MORF	HN	123	54	ES		1418	22.800	.130							1.0
MORF	HN	123	54	IAML		1418	23.44			5	0.1				
MESJ	HZ	190	46	EP		1418	17.11	-.070							1.0
MESJ	HN	190	46	ES		1418	37.42	-.080							1.0
MESJ	HN	190	46	IAML		1418	39.94			1	0.1				
GRNL	CZ	193	33	EP		1418	17.44	-.120							1.0

November 27 2022 Hour: 19:58 52.1 Lat: 36.98N Lon: 8.75W Depth: 16F Agency: IGL Regional  
Magnitudes: 0.9ML IGL Rms: 0.1 secs

WEST OF GIBRALTAR Net: IMP

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
MORF	HZ	37	13	EP		1958	58.50	-.030							1.0
MORF	HE	37	13	ES		1959	3.15	-.070							1.0
MORF	HN	37	13	IAML		1959	3.99			15	0.2				
GRNL	CN	126	7	ES		1959	26.040	.110							1.0
GRNL	CE	126	7	IAML		1959	27.88			1	0.1				

November 28 2022 Hour: 2:51 23.6 Lat: 37.09N Lon: 32.43W Depth: 10F Agency: IGL Distant  
Magnitudes: 5.5Ms IGL Rms: 0.2 secs

AZORES ISLANDS REGION Net: CSEM

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
GGNV	BZ	2050	78	EP		255	39.270	.100							1.0
GGNV	BN	2050	78	IAMs_20		259	42.85			41802	22.0				
GRNL	BZ	2105	80	EP		255	44.780	.210							1.0
GRNL	BZ	2105	80	IAMs_20		3 0	45.98			13427	17.1				
MORF	BZ	2106	82	EP		255	44.58	-.160							1.0
MORF	BN	2106	82	IAMs_20		259	54.60			27478	24.2				
MESJ	BZ	2138	80	EP		255	47.70	-.140							1.0
MESJ	BN	2138	80	IAMs_20		3 0	9.84			16530	16.3				

November 28 2022 Hour: 7:59 1.4 Lat: 34.44N Lon: 4.64W Depth: 16F Agency: IGL Regional  
Rms: 0.1 secs

MOROCCO Net: IMP

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
MESJ	HZ	496	320	EP		8 0	6.52	-.130							1.0
GRNL	CZ	538	320	EP		8 0	11.950	.130							1.0

November 28 2022 Hour: 23:59 0.1 Lat: 35.42N Lon: 4.73W Depth: 48F Agency: IGL Regional  
Rms: 0.1 secs

MOROCCO Net: IMP

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
MORF	HZ	409	302	EP		2359	52.93	-.170							1.0
MESJ	HZ	411	312	EP		2359	53.33	-.000							1.0
GRNL	CZ	454	312	EP		2359	58.670	.170							1.0

November 29 2022 Hour: 4:32 36.3 Lat: 38.30N Lon: 24.29E Depth: 5F Agency: IGL Distant  
Magnitudes: 5.2Mb IGL Rms: 0.0 secs

AEGEAN SEA Net: CSEM

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
MESJ	BZ	2838	279	EP		438	5.82	-.000							1.0
MESJ	BZ	2838	279	IAMB		438	11.13			19	0.4				

November 29 2022 Hour: 13:54 57.6 Lat: 37.21N Lon: 8.70W Depth: 7F Agency: IGL Regional  
Magnitudes: 0.3ML IGL Rms: 0.1 secs

N LAGOS, PORTUGAL Net: IMP

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
MORF	HZ	12	20	EP		1354	59.80	-.070							1.0
MORF	HE	12	20	ES		1355	1.580	.070							1.0
MORF	HE	12	20	IAML		1355	1.84			14	0.2				

November 29 2022 Hour: 15:54 46.5 Lat: 53.83N Lon: 35.16W Depth: 10F Agency: IGL Distant  
Magnitudes: 5.2Mb IGL Rms: 0.1 secs

REYKJANES RIDGE Net: NEIC

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
GRNL	BZ	2673	120	EP		16 0	1.59	-.120							1.0
GRNL	BZ	2673	120	IAMB		16 0	4.30			171	2.0				
MESJ	BZ	2715	120	EP		16 0	5.400	.180							1.0
MESJ	BZ	2715	120	IAMB		16 0	8.44			36	0.9				
MORF	BZ	2736	121	EP		16 0	6.94	-.050							1.0
MORF	BZ	2736	121	IAMB		16 0	10.91			275	2.5				

November 29 2022 Hour: 22:7 8.5 Lat: 36.60N Lon: 11.40W Depth: 29F Agency: IGL Regional  
Magnitudes: 2.4ML IGL Rms: 0.1 secs

AZORES-CAPE ST. VINCENT RIDGE Net: IMP

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
MORF	HZ	257	71	EP		22 7	43.26	-.090							1.0
MORF	HN	257	71	ES		22 8	8.73	-.050							1.0
MORF	HN	257	71	IAML		22 8	10.50			44	0.2				
GRNL	CZ	302	55	EP		22 7	48.83	-.030							1.0
GRNL	CN	302	55	ES		22 8	18.460	.140							1.0
GRNL	CN	302	55	IAML		22 8	20.10			8	0.1				
MESJ	HZ	314	63	EP		22 7	50.440	.030							1.0

November 29 2022 Hour: 23:46 6.9 Lat: 38.15N Lon: 20.07E Depth: 10F Agency: IGL Distant  
Magnitudes: 4.4Mb IGL Rms: 0.0 secs

GREECE Net: NEIC

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
GRNL	BZ	2501	279	EP		2351	6.490	.000							1.0
GRNL	BZ	2501	279	IAMB		2351	7.97			14	1.0				

November 29 2022 Hour: 23:50 38.0 Lat: 53.91N Lon: 35.11W Depth: 10F Agency: IGL Distant  
Magnitudes: 5.3Ms IGL Rms: 0.1 secs

REYKJANES RIDGE Net: NEIC

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
GGNV	BZ	2590	120	EP		2355	46.270	.170							1.0
GGNV	BZ	2590	120	IAMS_20		24 2	21.36			11581	20.9				
GRNL	BZ	2674	120	EP		2355	53.400	.060							1.0
GRNL	BZ	2674	120	IAMS_20		24 2	51.61			9110	14.1				
MESJ	BZ	2717	120	EP		2355	56.870	.020							1.0
MESJ	BZ	2717	120	IAMS_20		24 3	5.58			10216	18.8				
MORF	BZ	2738	122	EP		2355	58.750	.110							1.0
MORF	BZ	2738	122	IAMS_20		24 2	39.89			7561	21.7				

November 30 2022 Hour: 0:55 56.1 Lat: 56.14N Lon: 116.56W Depth: 10F Agency: IGL Distant  
Magnitudes: 5.6Mb IGL Rms: 0.1 secs

ALBERTA, CANADA Net: NEIC

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
GGNV	BZ	7480	54	EP		1 6	51.270	.110							1.0
GGNV	BZ	7480	54	IAMB		1 6	54.24			59	0.9				
GRNL	BZ	7564	54	EP		1 6	55.990	.010							1.0
GRNL	BZ	7564	54	IAMB		1 6	57.72			27	1.0				
MESJ	BZ	7606	54	EP		1 6	58.26	-.110							1.0
MESJ	BZ	7606	54	IAMB		1 6	58.68			64	1.4				
MORF	BZ	7633	55	EP		1 6	59.94	-.010							1.0
MORF	BZ	7633	55	IAMB		1 7	0.98			60	1.1				

November 30 2022 Hour: 8:17 25.4 Lat: 35.61N Lon: 6.82W Depth: 32F Agency: IGL Regional  
Magnitudes: 2.0ML IGL Rms: 0.1 secs

STRAIT OF GIBRALTAR Net: IMP

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
MORF	HZ	250	319	EP		817	59.400	.230							1.0
MESJ	HZ	277	334	EP		818	2.590	.020							1.0
MESJ	HN	277	334	ES		818	29.750	.020							1.0
MESJ	HN	277	334	IAML		818	31.23			5	0.1				
GRNL	CZ	318	331	EP		818	7.47	-.170							1.0
GRNL	CN	318	331	ES		818	38.39	-.110							1.0
GRNL	CN	318	331	IAML		818	40.74			7	0.1				

November 30 2022 Hour: 10:22 49.8 Lat: 37.08N Lon: 8.22W Depth: 1 Agency: IGL Regional  
Magnitudes: 1.0ML IGL Rms: 0.1 secs

WEST OF GIBRALTAR Net: IMP

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
MORF	HZ	46	304	EP		1022	57.04	-.100							1.0
MORF	HE	46	304	ES		1023	2.640	.100							1.0
MORF	HN	46	304	IAML		1023	4.57			13	0.4				

November 30 2022 Hour: 11:7 2.0 Lat: 35.49N Lon: 3.64W Depth: 0 Agency: IGL Regional  
Magnitudes: 3.8ML IGL Rms: 0.1 secs

STRAIT OF GIBRALTAR Net: MAD

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
MESJ	HZ	486	304	EP		11 8	7.59	-.050							1.0
MESJ	HN	486	304	ES		11 8	55.730	.190							1.0
MESJ	HN	486	304	IAML		11 8	59.46			162	0.5				
MORF	HZ	493	296	EP		11 8	8.37	-.180							1.0
GRNL	CZ	527	305	EP		11 8	12.770	.080							1.0
GRNL	CN	527	305	ES		11 9	4.25	-.030							1.0
GRNL	CN	527	305	IAML		11 9	7.48			169	0.5				

November 30 2022 Hour: 12:32 0.3 Lat: 37.51N Lon: 8.05W Depth: 18F Agency: IGL Regional  
Magnitudes: 0.2ML IGL Rms: 0.1 secs

NE ALMODOVAR, PORTUGAL Net: IMP

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
MESJ	HZ	40	338	EP		1232	7.380	.160							1.0
MESJ	HE	40	338	ES		1232	12.270	.020							1.0
MESJ	HE	40	338	IAML		1232	12.39			2	0.1				
GRNL	CZ	81	326	EP		1232	13.11	-.190							1.0

November 30 2022 Hour: 14:30 6.7 Lat: 36.65N Lon: 7.12W Depth: 31F Agency: IGL Regional  
Magnitudes: 1.5ML IGL Rms: 0.1 secs

STRAIT OF GIBRALTAR Net: IMP

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
MORF	HZ	155	298	EP		1430	28.160	.160							1.0
MORF	HE	155	298	ES		1430	43.580	.060							1.0
MORF	HN	155	298	IAML		1430	44.31			5	0.1				
MESJ	HZ	164	324	EP		1430	28.95	-.190							1.0
GRNL	CZ	207	322	EP		1430	34.37	-.030							1.0

November 30 2022 Hour: 15:17 41.5 Lat: 26.88N Lon: 55.22E Depth: 5F Agency: IGL Distant  
Magnitudes: 5.5Mb IGL Rms: 0.0 secs

SOUTHERN IRAN Net: NEIC

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
MESJ	BZ	5983	299	EP		1527	4.91	-.010							1.0
MESJ	BZ	5983	299	IAmb		1527	10.60			30	0.9				
GRNL	BZ	6009	299	EP		1527	6.61	-.020							1.0
GRNL	BZ	6009	299	IAmb		1527	8.38			56	0.9				
MORF	BZ	6029	298	EP		1527	8.060	.030							1.0
MORF	BZ	6029	298	IAmb		1527	9.80			54	1.2				



November 30 2022 Hour: 19:11 51.2 Lat: 36.36N Lon: 7.74W Depth: 32F Agency: IGL Regional  
Magnitudes: 1.6ML IGL Rms: 0.1 secs

STRAIT OF GIBRALTAR Net: IMP

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
MORF	HZ	133	322	EP		1912	10.34	-.090							1.0
MESJ	HZ	170	346	EP		1912	15.230	.250							1.0
MESJ	HN	170	346	ES		1912	32.21	-.170							1.0
MESJ	HE	170	346	IAML		1912	33.84			3	0.2				
GRNL	CZ	208	339	EP		1912	19.750	.070							1.0
GRNL	CN	208	339	ES		1912	40.45	-.050							1.0
GRNL	CN	208	339	IAML		1912	41.03			8	0.2				

December 1 2022 Hour: 9:21 31.3 Lat: 35.75N Lon: 10.15W Depth: 31F Agency: IGL Regional  
Magnitudes: 2.7ML IGL Rms: 0.1 secs

WEST OF GIBRALTAR Net: IMP

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
MORF	HZ	218	37	EP		922	0.530	.090							1.0
MORF	HN	218	37	ES		922	21.780	.040							1.0
MORF	HN	218	37	IAML		922	24.44			43	0.2				
MESJ	HZ	289	36	EP		922	9.230	.080							1.0
GRNL	CZ	297	28	EP		922	9.90	-.280							1.0
GRNL	CN	297	28	ES		922	38.650	.070							1.0
GRNL	CN	297	28	IAML		922	41.78			37	0.2				

December 1 2022 Hour: 22:46 26.4 Lat: 37.95N Lon: 7.63W Depth: 1F Agency: IGL Regional  
Magnitudes: 1.1ML IGL Rms: 0.1 secs

NW SERPA, PORTUGAL Net: IMP

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
MESJ	HZ	53	257	EP		2246	34.91	-.070							1.0
MESJ	HE	53	257	ES		2246	41.13	-.100							1.0
MESJ	HN	53	257	IAML		2246	41.92			6	0.1				
GRNL	CZ	84	282	EP		2246	40.060	.100							1.0
GRNL	CE	84	282	ES		2246	49.860	.020							1.0
GRNL	CN	84	282	IAML		2246	51.08			10	0.2				
MORF	HZ	115	232	EP		2246	45.040	.050							1.0

December 2 2022 Hour: 20:11 12.2 Lat: 36.06N Lon: 6.78W Depth: 31F Agency: IGL Regional  
Rms: 0.1 secs

STRAIT OF GIBRALTAR Net: IMP

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
MORF	HZ	217	310	EP		2011	41.02	-.130							1.0
MESJ	HZ	235	327	EP		2011	43.490	.090							1.0
GRNL	CZ	277	326	EP		2011	48.650	.040							1.0

December 3 2022 Hour: 7:23 36.2 Lat: 37.05N Lon: 8.95W Depth: 19F Agency: IGL Regional  
Magnitudes: 1.1ML IGL Rms: 0.0 secs

WEST OF GIBRALTAR Net: IMP

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
MORF	HZ	38	43	EP		723	42.95	-.080							1.0
MORF	HN	38	43	ES		723	48.010	.030							1.0
MORF	HN	38	43	IAML		723	49.92			16	0.2				
MESJ	HZ	109	36	EP		723	53.380	.050							1.0

December 3 2022 Hour: 8:17 32.2 Lat: 36.31N Lon: 14.77W Depth: 0 Agency: IGL Regional  
Magnitudes: 2.5ML IGL Rms: 0.1 secs

AZORES-CAPE ST. VINCENT RIDGE Net: IMP

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
MORF	HN	557	77	ES		819	33.150	.040							1.0
MORF	HN	557	77	IAML		819	37.74			9	0.3				
GRNL	CZ	586	68	EP		818	45.16	-.380							1.0
GRNL	CE	586	68	ES		819	39.430	.340							1.0
GRNL	CE	586	68	IAML		819	41.59			4	0.4				

December 3 2022 Hour: 9:49 42.4 Lat: 7.36S Lon: 107.62E Depth:115F Agency: IGL Distant  
Rms: 0.0 secs

**JAVA, INDONESIA Net: GFZ**

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
GRNL	BZ12808	309		EP	KPdf	10	8	9.700	.020						1.0
MORF	BZ12831	308		EP	KPdf	10	8	10.13	-.020						1.0

December 3 2022 Hour: 11:41 37.7 Lat: 7.31N Lon: 77.08W Depth: 39F Agency: IGL Distant  
Magnitudes: 4.8Mb IGL Rms: 0.0 secs

**PANAMA-COLOMBIA BORDER REGION Net: NEIC**

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
MORF	BZ 7621	53		EP		1152	36.02	-.020							1.0
MORF	BZ 7621	53		I Amb		1152	38.91			35	1.1				
GRNL	BZ 7640	52		EP		1152	37.090	.050							1.0
MESJ	BZ 7666	52		EP		1152	38.51	-.030							1.0
MESJ	BZ 7666	52		I Amb		1152	39.70			3	0.9				

December 3 2022 Hour: 12:20 27.8 Lat: 36.61N Lon: 12.55W Depth: 0 Agency: IGL Regional  
Magnitudes: 2.9ML IGL Rms: 0.0 secs

**AZORES-CAPE ST. VINCENT RIDGE Net: IMP**

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
MORF	HZ 355	76		EP		1221	12.83	-.080							1.0
MORF	HN 355	76		ES		1221	45.79	-.060							1.0
MORF	HN 355	76		I AML		1221	50.02			40	0.2				
GRNL	CZ 390	63		EP		1221	17.100	.020							1.0
GRNL	CN 390	63		ES		1221	53.190	.120							1.0
GRNL	CN 390	63		I AML		1221	55.77			26	0.2				

December 3 2022 Hour: 14: 4 51.6 Lat: 37.34N Lon: 8.54W Depth: 15F Agency: IGL Regional  
Magnitudes: 0.5ML IGL Rms: 0.1 secs

**NE MONCHIQUE, PORTUGAL Net: IMP**

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
MORF	HZ 11	248		EP		14	4	54.43	-.200						1.0
MORF	HN 11	248		ES		14	4	56.960	.130						1.0
MORF	HE 11	248		I AML		14	4	57.50		13	0.1				
GRNL	CN 85	358		ES		14	5	15.210	.070						1.0
GRNL	CE 85	358		I AML		14	5	15.94		2	0.1				

December 3 2022 Hour: 21:27 54.9 Lat: 36.51N Lon: 7.71W Depth: 32F Agency: IGL Regional  
Magnitudes: 1.8ML IGL Rms: 0.1 secs

**STRAIT OF GIBRALTAR Net: IMP**

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
MORF	HZ 122	317		EP		2128	12.71	-.100							1.0
MORF	HE 122	317		ES		2128	25.86	-.040							1.0
MORF	HE 122	317		I AML		2128	27.12			26	0.2				
MESJ	HZ 155	343		EP		2128	16.950	.110							1.0
MESJ	HN 155	343		ES		2128	32.78	-.090							1.0
MESJ	HN 155	343		I AML		2128	33.93			7	0.2				
GRNL	CZ 193	337		EP		2128	21.770	.130							1.0

December 4 2022 Hour: 3:17 37.5 Lat: 35.64N Lon: 6.99W Depth: 32F Agency: IGL Regional  
Magnitudes: 0.9ML IGL Rms: 0.1 secs

**WEST OF GIBRALTAR Net: IMP**

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
MORF	HZ 237	321		EP		318	9.50	-.220							1.0
MESJ	HZ 267	336		EP		318	13.580	.140							1.0
MESJ	HE 267	336		ES		318	39.750	.050							1.0
MESJ	HE 267	336		I AML		318	40.47			0.60	0.1				
GRNL	CZ 308	333		EP		318	18.490	.040							1.0

**December 4 2022 Hour: 3:39 58.6 Lat: 53.90N Lon: 35.61W Depth: 10F Agency: IGL Distant**  
**Magnitudes: 4.8Mb IGL Rms: 0.1 secs**

**REYKJANES RIDGE Net: NEIC**

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
MESJ	BZ	2745	119	EP		345	19.860	.160							1.0
MESJ	BZ	2745	119	I Amb		345	22.26			29	1.1				
MORF	BZ	2766	121	EP		345	21.30	-.160							1.0
MORF	BZ	2766	121	I Amb		345	23.36			18	0.8				

**December 4 2022 Hour: 7:12 46.9 Lat: 38.36N Lon: 14.98E Depth: 10F Agency: IGL Distant**  
**Magnitudes: 3.7Mb IGL Rms: 0.0 secs**

**SICILY, ITALY Net: CSEM**

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
MESJ	BZ	2030	276	EP		717	0.46	-.000							1.0
MESJ	BZ	2030	276	I Amb		717	1.72			8	1.4				

**December 4 2022 Hour: 9:53 14.9 Lat: 1.05S Lon: 10.20E Depth: 10F Agency: IGL Distant**  
**Magnitudes: 4.8Mb IGL Rms: 0.0 secs**

**GABON Net: GFZ**

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
MORF	BZ	4672	337	EP		10	1	6.17	-.060						1.0
MORF	BZ	4672	337	I Amb		10	1	7.34		60	1.3				
MESJ	BZ	4706	338	EP		10	1	8.710	.030						1.0
MESJ	BZ	4706	338	I Amb		10	1	12.31		7	0.9				
GRNL	BZ	4747	338	EP		10	1	11.680	.030						1.0
GRNL	BZ	4747	338	I Amb		10	1	12.65		28	1.2				

**December 4 2022 Hour: 10:35 32.6 Lat: 43.39N Lon: 14.42W Depth: 20F Agency: IGL Regional**  
**Rms: 0.0 secs**

**NORTH ATLANTIC OCEAN Net: IMP**

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
GRNL	CZ	767	138	EP		1037	7.35	-.130							1.0
MESJ	HZ	809	138	EP		1037	12.790	.100							1.0
MORF	HZ	834	142	EP		1037	15.880	.040							1.0

**December 4 2022 Hour: 11:13 59.0 Lat: 53.94N Lon: 35.56W Depth: 10F Agency: IGL Distant**  
**Magnitudes: 5.2Mb IGL Rms: 0.0 secs**

**REYKJANES RIDGE Net: NEIC**

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
GRNL	BZ	2702	120	EP		1119	16.570	.010							1.0
GRNL	BZ	2702	120	I Amb		1119	18.54			724	2.5				
MESJ	BZ	2744	120	EP		1119	20.03	-.040							1.0
MESJ	BZ	2744	120	I Amb		1119	22.43			18	0.8				
MORF	BZ	2765	121	EP		1119	21.870	.040							1.0
MORF	BZ	2765	121	I Amb		1119	24.64			32	0.8				

**December 4 2022 Hour: 15:57 26.8 Lat: 36.99N Lon: 5.39W Depth: 2F Agency: IGL Regional**  
**Rms: 0.0 secs**

**SPAIN Net: IMP**

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
MESJ	HZ	267	291	EP		1558	5.23	-.030							1.0
GRNL	CZ	307	295	EP		1558	10.180	.030							1.0

**December 4 2022 Hour: 19:24 16.8 Lat: 15.40S Lon: 172.97W Depth: 36F Agency: IGL Distant**  
**Magnitudes: 7.3Ms IGL Rms: 0.1 secs**

**SAMOA ISLANDS REGION Net: NEIC**

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
GGNV	BZ17001	28	EPKp $\bar{d}$ $\bar{f}$			1944	1.990	.050							1.0
GGNV	BZ17001	28	IAMs $\bar{2}$			2045	17.54			66899	26.1				
GRNL	BZ17085	28	EPKp $\bar{d}$ $\bar{f}$			1944	2.89	-.170							0.9
GRNL	BZ17085	28	EPP			1947	57.910	.010							1.0
GRNL	BZ17085	28	IAMs $\bar{2}$			2043	49.40			80836	31.9				
MESJ	BZ17128	28	EPKp $\bar{d}$ $\bar{f}$			1944	3.680	.070							1.0

MESJ	BZ17128	28	EPP	1948	0.080.030												1.0
MESJ	BZ17128	28	IAMs_20	2044	26.40				53560	19.5							
MORF	BZ17153	30	EPKp $\bar{d}$ f	1944	4.010.020												1.0
MORF	BZ17153	30	EPP	1948	1.36-.040												1.0
MORF	BZ17153	30	IAMs_20	2046	2.82				38245	21.0							

**December 4 2022 Hour: 20:52 25.0 Lat: 37.13N Lon: 8.15W Depth: 9F Agency: IGL Regional**  
**Magnitudes: 1.3ML IGL Rms: 0.1 secs**

**WEST OF GIBRALTAR Net: IMP**

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
MORF	HZ	48	294	EP		2052	32.87-.060								1.0
MORF	HN	48	294	ES		2052	38.890.150								1.0
MORF	HN	48	294	IAML		2052	40.49		37	0.2					
MESJ	HE	79	356	ES		2052	47.330.090								1.0
MESJ	HN	79	356	IAML		2052	48.10		5	0.1					
GRNL	CZ	115	342	EP		2052	43.03-.200								1.0

**December 4 2022 Hour: 21:4 24.2 Lat: 27.94S Lon: 66.58W Depth:154F Agency: IGL Distant**  
**Magnitudes: 4.9Mb IGL Rms: 0.0 secs**

**CATAMARCA, ARGENTINA Net: GFZ**

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
GRNL	BZ	9480	42	EP		2116	43.300.040								1.0
GRNL	BZ	9480	42	IAMB		2116	45.09		12	0.9					
MESJ	BZ	9483	43	EP		2116	43.39-.040								1.0
MESJ	BZ	9483	43	IAMB		2116	44.19		24	0.9					

**December 5 2022 Hour: 0:51 40.2 Lat: 36.00N Lon: 10.52W Depth: 26F Agency: IGL Regional**  
**Magnitudes: 2.0ML IGL Rms: 0.1 secs**

**AZORES-CAPE ST. VINCENT RIDGE Net: IMP**

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
MORF	HZ	221	48	EP		052	10.940.160								1.0
MORF	HN	221	48	ES		052	33.130.060								1.0
MORF	HN	221	48	IAML		052	34.15		10	0.1					
MESJ	HZ	289	44	EP		052	19.310.070								1.0
MESJ	HN	289	44	ES		052	47.62-.080								1.0
MESJ	HN	289	44	IAML		052	48.17		4	0.1					
GRNL	CZ	291	36	EP		052	19.21-.280								1.0
GRNL	CN	291	36	ES		052	48.180.050								1.0
GRNL	CN	291	36	IAML		052	50.89		16	0.2					

**December 5 2022 Hour: 5:35 9.3 Lat: 11.33S Lon: 166.20E Depth: 93F Agency: IGL Distant**  
**Magnitudes: 0.1 IGL Rms: 0.1 secs**

**SANTA CRUZ ISLANDS Net: NEIC**

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
GRNL	BZ17022	351	EPKp $\bar{d}$ f			554	47.660.020								1.0
GRNL	BZ17022	351	EPP			558	40.690.090								1.0
MESJ	BZ17045	350	EPKp $\bar{d}$ f			554	47.79-.160								0.9
MESJ	BZ17045	350	EPP			558	41.78-.000								1.0
MORF	BZ17111	351	EPP			558	45.220.040								1.0

**December 5 2022 Hour: 5:58 3.7 Lat: 35.44N Lon: 3.58W Depth: 13F Agency: IGL Regional**  
**Magnitudes: 0.1 IGL Rms: 0.1 secs**

**STRAIT OF GIBRALTAR Net: MAD**

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
MESJ	HZ	493	304	EP		559	8.970.090								1.0
GRNL	CZ	535	305	EP		559	13.85-.090								1.0

**December 5 2022 Hour: 8:43 12.6 Lat: 36.17N Lon: 9.15W Depth: 12F Agency: IGL Regional**  
**Magnitudes: 2.5ML IGL Rms: 0.1 secs**

**WEST OF GIBRALTAR Net: IMP**

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
MORF	HZ	133	19	EP		843	33.480.070								1.0
MORF	HN	133	19	ES		843	48.720.100								1.0
MORF	HN	133	19	IAML		843	53.62		78	0.2					

MESJ HZ 203 24 EP 843 41.83-.180 1.0

December 5 2022 Hour: 14:21 22.3 Lat: 15.17S Lon: 174.16W Depth:111F Agency: IGL Distant Rms: 0.1 secs

TONGA Net: NEIC

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
GRNL	BZ17122		26	EPKP		1441	8.48	-0.05							1.0
MESJ	BZ17164		26	EPKP		1441	9.28	-0.04							1.0
MORF	BZ17192		28	EPKP		1441	10.00	0.09							1.0

December 5 2022 Hour: 18:21 4.8 Lat: 37.34N Lon: 8.47W Depth: 9F Agency: IGL Regional Magnitudes: 1.3ML IGL Rms: 0.1 secs

NE MONCHIQUE, PORTUGAL

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
MORF	HZ		17	257	EP		1821	7.83	-.080						1.0
MORF	HE		17	257	ES		1821	10.330	.140						1.0
MORF	HN		17	257	IAML		1821	10.85		117	0.1				
MESJ	HZ		60	21	EP		1821	14.560	.040						1.0
GRNL	CZ		86	354	EP		1821	18.650	.030						1.0
GRNL	CN		86	354	ES		1821	28.60	-.130						1.0
GRNL	CN		86	354	IAML		1821	29.78		7	0.2				

December 5 2022 Hour: 21:41 49.2 Lat: 36.26N Lon: 8.57W Depth: 11F Agency: IGL Regional Magnitudes: 2.2ML IGL Rms: 0.1 secs

WEST OF GIBRALTAR Met: IMP

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
MORF	HZ		116	356	EP		2142	7.46	-.090						1.0
MORF	HN		116	356	ES		2142	21.040	.090						1.0
MORF	HN		116	356	IAML		2142	23.16		48	0.4				

December 6 2022 Hour: 20: 3 32.7 Lat: 38.54N Lon: 8.49W Depth: 1F Agency: IGL Regional Magnitudes: 0.5ML IGL Rms: 0.1 secs

S VENDAS NOVAS, PORTUGAL Net: IMP

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
GRNL	CZ		48	188	EP		20 3	40.640	.080						1.0
GRNL	CE		48	188	ES		20 3	46.18	-.080						1.0
GRNL	CN		48	188	IAML		20 3	48.34		4	0.1				

December 7 2022 Hour: 0:52 42.5 Lat: 36.37N Lon: 9.79W Depth: 23F Agency: IGL Regional Magnitudes: 1.6ML IGL Rms: 0.1 secs

WEST OF GIBRALTAR Net: IMP

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
MORF	HZ		145	44	EP		053	4.170	.120						1.0
MORF	HN		145	44	ES		053	19.790	.010						1.0
MORF	HN		145	44	IAML		053	20.83		8	0.1				
MESJ	HZ		214	40	EP		053	12.710	.050						1.0
GRNL	CZ		221	29	EP		053	13.32	-.150						1.0
GRNL	CN		221	29	ES		053	36.04	-.030						1.0

December 7 2022 Hour: 11: 2 51.9 Lat: 37.85N Lon: 9.07W Depth: 11F Agency: IGL Regional Magnitudes: 1.7ML IGL Rms: 0.1 secs

SW SINES, PORTUGAL Net: IMP

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
GRNL	CZ		52	57	EP		11 3	0.36	-.120						1.0
GRNL	CN		52	57	ES		11 3	6.920	.130						1.0
GRNL	CN		52	57	IAML		11 3	7.96		52	0.1				
MORF	HZ		71	149	EP		11 3	3.15	-.240						1.0
MORF	HE		71	149	ES		11 3	11.910	.100						1.0
MORF	HN		71	149	IAML		11 3	12.86		30	0.2				
MESJ	HZ		75	91	EP		11 3	3.950	.030						1.0
MESJ	HN		75	91	ES		11 3	12.830	.100						1.0
MESJ	HN		75	91	IAML		11 3	13.80		33	0.2				

**December 8 2022 Hour: 6:42 15.8 Lat: 42.27N Lon: 46.89E Depth: 60F Agency: IGL Distant**  
**Magnitudes: 5.4Mb IGL Rms: 0.0 secs**

**CAUCASUS REGION, RUSSIA Net: NEIC**

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
GRNL	BZ	4662	284	EP		650	0.43	-.040							1.0
GRNL	BZ	4662	284	IAMB		650	0.96			33	0.6				
GGNV	BZ	4681	285	EP		650	1.900	.040							1.0
GGNV	BZ	4681	285	IAMB		650	3.20			111	0.9				

**December 8 2022 Hour: 9:35 50.4 Lat: 35.42N Lon: 3.61W Depth: 12F Agency: IGL Regional**  
**Rms: 0.1 secs**

**STRAIT OF GIBRALTAR Net: MAD**

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
MESJ	HZ	492	304	EP		936	55.480	.000							1.0
MORF	HZ	499	296	EP		936	56.24	-.070							1.0
GRNL	CZ	534	305	EP		937	0.610	.070							1.0

**December 8 2022 Hour: 12:44 2.1 Lat: 45.27N Lon: 27.91W Depth: 10F Agency: IGL Distant**  
**Magnitudes: 4.8Ms IGL Rms: 0.0 secs**

**NORTHERN MID-ATLANTIC RIDGE Net: NEIC**

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
GGNV	BZ	1711	109	EP		1247	39.28	-.040							1.0
GGNV	BZ	1711	109	IAMS_20		1252	15.76			7491	18.9				
GRNL	BZ	1789	110	EP		1247	48.520	.000							1.0
GRNL	BZ	1789	110	IAMS_20		1252	27.04			6438	19.7				
MESJ	BZ	1831	110	EP		1247	53.420	.070							1.0
MESJ	BZ	1831	110	IAMS_20		1252	37.91			5916	19.0				
MORF	BZ	1833	112	EP		1247	53.53	-.030							1.0
MORF	BZ	1833	112	IAMS_20		1252	8.13			5382	15.3				

**December 8 2022 Hour: 20:13 48.7 Lat: 36.64N Lon: 7.61W Depth: 30F Agency: IGL Regional**  
**Magnitudes: 1.6ML IGL Rms: 0.1 secs**

**STRAIT OF GIBRALTAR Net: IMP**

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
MESJ	HZ	144	338	EP		2014	9.470	.070							1.0
MESJ	HN	144	338	ES		2014	24.34	-.140							1.0
MESJ	HN	144	338	IAML		2014	25.49			6	0.1				
GRNL	CZ	184	333	EP		2014	14.370	.010							1.0
GRNL	CN	184	333	ES		2014	33.120	.060							1.0
GRNL	CN	184	333	IAML		2014	33.79			9	0.3				

**December 9 2022 Hour: 3: 8 38.7 Lat: 35.93N Lon: 10.13W Depth: 32F Agency: IGL Regional**  
**Magnitudes: 2.0ML IGL Rms: 0.1 secs**

**WEST OF GIBRALTAR Net: IMP**

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
MORF	HZ	202	41	EP		3 9	6.55	-.020							1.0
MORF	HN	202	41	ES		3 9	27.070	.180							1.0
MORF	HN	202	41	IAML		3 9	27.37			9	0.1				
MESJ	HZ	272	38	EP		3 9	15.21	-.030							1.0
GRNL	CZ	279	29	EP		3 9	15.83	-.260							1.0
GRNL	CN	279	29	ES		3 9	43.480	.120							1.0
GRNL	CN	279	29	IAML		3 9	45.23			11	0.2				

**December 10 2022 Hour: 17:19 59.1 Lat: 35.42N Lon: 3.60W Depth: 17F Agency: IGL Regional**  
**Rms: 0.0 secs**

**STRAIT OF GIBRALTAR Net: MAD**

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
MESJ	HZ	493	304	EP		1721	3.82	-.010							1.0
GRNL	CZ	534	305	EP		1721	8.910	.010							1.0

**December 10 2022 Hour: 17:42 0.2 Lat: 36.60N Lon: 9.74W Depth: 14F Agency: IGL Regional  
Magnitudes: 1.6ML IGL Rms: 0.1 secs**

**WEST OF GIBRALTAR Net: IMP**

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
MORF	HZ	124	51	EP		1742	19.790	.010							1.0
MORF	HE	124	51	ES		1742	34.170	.110							1.0
MORF	HN	124	51	IAML		1742	34.72			12	0.2				
MESJ	HZ	193	44	EP		1742	28.22	-.000							1.0
MESJ	HN	193	44	ES		1742	48.63	-.020							1.0
MESJ	HE	193	44	IAML		1742	49.50			1	0.1				
GRNL	CZ	197	32	EP		1742	28.55	-.190							1.0
GRNL	CN	197	32	ES		1742	49.630	.090							1.0
GRNL	CN	197	32	IAML		1742	51.82			13	0.1				

**December 10 2022 Hour: 19:46 49.7 Lat: 35.77N Lon: 17.59W Depth: 35F Agency: IGL Regional  
Rms: 0.0 secs**

**AZORES-CAPE ST. VINCENT RIDGE Net: IMP**

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
MORF	HZ	818	75	EP		1948	30.85	-.060							1.0
MESJ	HZ	867	72	EP		1948	36.910	.060							1.0

**December 10 2022 Hour: 21:43 53.3 Lat: 36.88N Lon: 11.38W Depth: 36F Agency: IGL Regional  
Magnitudes: 1.9ML IGL Rms: 0.1 secs**

**AZORES-CAPE ST. VINCENT RIDGE Net: IMP**

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
GRNL	CZ	283	60	EP		2144	31.23	-.070							1.0
GRNL	CN	283	60	ES		2144	59.180	.170							1.0
GRNL	CN	283	60	IAML		2145	2.87			8	0.1				
MESJ	HN	300	68	ES		2145	2.37	-.100							1.0
MESJ	HN	300	68	IAML		2145	5.42			4	0.2				

**December 11 2022 Hour: 14:31 30.9 Lat: 17.22N Lon: 100.47W Depth: 19F Agency: IGL Distant  
Magnitudes: 5.9Ms IGL Rms: 0.1 secs**

**GUERRERO, MEXICO Net: NEIC**

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
GGNV	BZ	8952	52	EP		1443	41.660	.040							1.0
GGNV	BZ	8952	52	IAMs_20		1517	33.08			6996	27.0				
GRNL	BZ	9018	53	EP		1443	44.960	.140							1.0
GRNL	BZ	9018	53	IAMs_20		1519	29.32			4760	18.5				
MORF	BZ	9034	54	EP		1443	45.63	-.010							1.0
MORF	BZ	9034	54	IAMs_20		1518	14.38			5147	15.8				
MESJ	BZ	9056	53	EP		1443	46.45	-.170							1.0
MESJ	BZ	9056	53	IAMs_20		1519	41.02			4903	24.5				

**December 12 2022 Hour: 4:18 59.2 Lat: 36.82N Lon: 8.32W Depth: 21F Agency: IGL Regional  
Magnitudes: 2.1ML IGL Rms: 0.1 secs**

**WEST OF GIBRALTAR Net: IMP**

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
MORF	HZ	62	332	EP		419	9.450	.050							1.0
MORF	HN	62	332	ES		419	16.980	.110							1.0
MORF	HE	62	332	IAML		419	18.79			125	0.1				
MESJ	HZ	114	4	EP		419	16.67	-.090							1.0
MESJ	HN	114	4	ES		419	29.700	.080							1.0
MESJ	HN	114	4	IAML		419	31.95			27	0.1				
GRNL	CZ	145	351	EP		419	20.46	-.170							1.0

**December 12 2022 Hour: 4:51 48.2 Lat: 30.48N Lon: 9.85W Depth: 18F Agency: IGL Regional  
Rms: 0.1 secs**

**MOROCCO Net: IMP**

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
MORF	HZ	765	8	EP		453	25.37	-.180							1.0
MESJ	HZ	830	10	EP		453	33.300	.130							1.0
GRNL	CZ	854	8	EP		453	36.090	.070							0.9

**December 12 2022 Hour: 11:55 42.1 Lat: 37.35N Lon: 8.55W Depth: 9F Agency: IGL Regional**  
**Magnitudes: 1.1ML IGL Rms: 0.1 secs**

**NE MONCHIQUE, PORTUGAL Net: IMP**

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
MORF	HZ	10	244	EP		1155	44.32	-.070							1.0
MORF	HE	10	244	ES		1155	46.12	0.070							1.0
MORF	HN	10	244	IAML		1155	46.62			92	0.2				

**December 12 2022 Hour: 16: 2 14.4 Lat: 34.59N Lon: 5.43W Depth: 12F Agency: IGL Regional**  
**Rms: 0.0 secs**

**MOROCCO Net: IMP**

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
MESJ	HZ	440	326	EP		16 3	13.19	-.010							1.0
GRNL	CZ	482	325	EP		16 3	18.32	0.010							1.0

**December 13 2022 Hour: 0:37 21.3 Lat: 37.08N Lon: 5.42W Depth: 1 Agency: IGL Regional**  
**Rms: 0.1 secs**

**SPAIN Net: MAD**

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
MESJ	HZ	262	290	EP		037	59.17	0.060							1.0
MORF	HZ	288	276	EP		038	2.31	-.130							1.0
GRNL	CZ	301	293	EP		038	4.01	0.070							1.0

**December 14 2022 Hour: 7:26 14.8 Lat: 38.82N Lon: 8.59W Depth: 11F Agency: IGL Regional**  
**Magnitudes: 3.1ML IGL Rms: 0.1 secs**

**SW CORUCHE, PORTUGAL Net: IMP**

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
GGNV	HZ	50	257	EP		726	22.92	-.160							1.0
GGNV	HN	50	257	ES		726	29.30	0.150							1.0
GGNV	HN	50	257	IAML		726	32.09			1361	0.4				
GRNL	CZ	79	179	EP		726	27.47	-.040							1.0
GRNL	CE	79	179	ES		726	36.89	0.070							1.0
GRNL	CE	79	179	IAML		726	38.55			839	0.3				
MESJ	HZ	114	164	EP		726	32.59	-.140							1.0
MESJ	HE	114	164	ES		726	46.08	0.230							1.0
MESJ	HN	114	164	IAML		726	47.73			326	0.3				
MORF	HZ	169	182	EPg		726	41.92	-.110							0.9

**December 14 2022 Hour: 8:15 40.3 Lat: 37.09N Lon: 5.43W Depth: 5F Agency: IGL Regional**  
**Rms: 0.0 secs**

**SPAIN Net: MAD**

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
MESJ	HZ	260	289	EP		816	17.65	0.010							1.0

**December 15 2022 Hour: 0:25 58.1 Lat: 36.93N Lon: 8.60W Depth: 26F Agency: IGL Regional**  
**Magnitudes: 0.6ML IGL Rms: 0.0 secs**

**WEST OF GIBRALTAR Net: IMP**

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
MORF	HZ	42	353	EP		026	5.76	-.060							1.0
MORF	HE	42	353	ES		026	11.49	0.060							1.0
MORF	HE	42	353	IAML		026	12.22			4	0.2				
MESJ	HN	107	18	ES		026	26.36	0.000							1.0
MESJ	HN	107	18	IAML		026	27.37			1	0.1				

**December 15 2022 Hour: 0:30 51.0 Lat: 36.96N Lon: 9.19W Depth: 27F Agency: IGL Regional**  
**Magnitudes: 1.6ML IGL Rms: 0.1 secs**

**WEST OF GIBRALTAR Net: IMP**

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
MORF	HZ	62	51	EP		031	1.43	0.110							1.0
MORF	HN	62	51	ES		031	8.94	0.050							1.0
MORF	HN	62	51	IAML		031	9.87			63	0.2				
MESJ	HZ	131	41	EP		031	10.07	-.120							1.0
MESJ	HN	131	41	ES		031	24.36	0.130							1.0



MESJ HN	131	41	IAML	031	26.25				7	0.1							
GRNL CZ	139	23	EP	031	11.16	-.110											1.0
GRNL CN	139	23	ES	031	26.05	-.060											1.0
GRNL CN	139	23	IAML	031	27.12				6	0.1							

**December 15 2022 Hour: 2:26 18.2 Lat: 38.82N Lon: 8.59W Depth: 8F Agency: IGL Regional**  
**Magnitudes: 1.4ML IGL Rms: 0.1 secs**

**SW CORUCHE, PORTUGAL Net: IMP**

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
GRNL CZ		79	178	EP		226	31.070	.030							1.0
GRNL CN		79	178	ES		226	40.430	.030							1.0
GRNL CN		79	178	IAML		226	43.13		18	0.2					
MESJ HZ	114	163	EP			226	36.430	.090							1.0
MESJ HE	114	163	ES			226	49.41	-.150							1.0
MESJ HN	114	163	IAML			226	50.85		5	0.2					

**December 15 2022 Hour: 9:36 24.4 Lat: 37.93N Lon: 8.93W Depth: 14F Agency: IGL Regional**  
**Magnitudes: 2.0ML IGL Rms: 0.1 secs**

**SW SINES, PORTUGAL Net: IMP**

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
GRNL CZ		37	58	EP		936	30.67	-.140							1.0
GRNL CN		37	58	ES		936	35.500	.050							1.0
GRNL CN		37	58	IAML		936	36.52		77	0.1					
MESJ HZ	63	99	EP			936	34.750	.030							1.0
MESJ HN	63	99	ES			936	42.370	.140							1.0
MESJ HN	63	99	IAML			936	43.53		61	0.1					
MORF HZ	74	161	EP			936	36.18	-.160							1.0
MORF HN	74	161	ES			936	45.090	.070							1.0
MORF HN	74	161	IAML			936	47.05		143	0.2					

**December 15 2022 Hour: 14:32 23.3 Lat: 12.94N Lon: 88.45W Depth: 74F Agency: IGL Distant**  
**Magnitudes: 5.4Mb IGL Rms: 0.0 secs**

**OFFSHORE EL SALVADOR Net: NEIC**

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
MESJ BZ	8294	54	EP			1443	54.20	-.000							1.0
MESJ BZ	8294	54	IAMB			1443	55.16		18	0.3					

**December 15 2022 Hour: 23:17 2.5 Lat: 36.37N Lon: 8.24W Depth: 14F Agency: IGL Regional**  
**Magnitudes: 2.1ML IGL Rms: 0.1 secs**

**WEST OF GIBRALTAR Net: IMP**

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
MORF HZ	110	341	EP			2317	19.84	-.090							1.0
MORF HN	110	341	ES			2317	32.800	.160							1.0
MORF HN	110	341	IAML			2317	34.87		60	0.1					
MESJ HZ	163	1	EP			2317	26.890	.010							1.0
MESJ HE	163	1	ES			2317	44.750	.090							1.0
MESJ HN	163	1	IAML			2317	46.30		19	0.2					
GRNL CZ	195	352	EP			2317	30.67	-.180							1.0
GRNL CN	195	352	ES			2317	51.530	.000							1.0
GRNL CN	195	352	IAML			2317	52.21		10	0.1					

**December 16 2022 Hour: 0:15 9.0 Lat: 38.03N Lon: 8.96W Depth: 1 Agency: IGL Regional**  
**Magnitudes: 1.1ML IGL Rms: 0.1 secs**

**NW SINES, PORTUGAL Net: IMP**

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
GRNL CZ		36	75	EP		015	14.83	-.000							1.0
GRNL CE		36	75	ES		015	19.230	.170							1.0
GRNL CE		36	75	IAML		015	20.02		39	0.2					
MESJ HZ	69	107	EP			015	20.09	-.030							1.0
MESJ HN	69	107	ES			015	28.17	-.040							1.0
MESJ HN	69	107	IAML			015	29.43		4	0.1					
MORF HZ	85	161	EP			015	22.62	-.110							1.0

**December 16 2022 Hour: 2: 8 17.7 Lat: 36.34N Lon: 8.24W Depth: 13F Agency: IGL Regional**  
**Magnitudes: 2.3ML IGL Rms: 0.1 secs**

**WEST OF GIBRALTAR Net: IMP**

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
MORF	HZ	113	341	EP		2 8	35.600	.020							1.0
MORF	HN	113	341	ES		2 8	48.650	.050							1.0
MORF	HN	113	341	IAML		2 8	50.41			110	0.3				
MESJ	HZ	167	1	EP		2 8	42.720	.150							1.0
MESJ	HN	167	1	ES		2 9	0.750	.060							1.0
MESJ	HN	167	1	IAML		2 9	2.03			25	0.2				
GRNL	CZ	198	352	EP		2 8	46.43	-.100							1.0
GRNL	CN	198	352	ES		2 9	7.35	-.190							1.0
GRNL	CN	198	352	IAML		2 9	9.23			22	0.2				

**December 16 2022 Hour: 5:27 46.9 Lat: 34.57N Lon: 3.72W Depth: 3F Agency: IGL Regional**  
**Magnitudes: 2.3ML IGL Rms: 0.0 secs**

**STRAIT OF GIBRALTAR Net: MAD**

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
MESJ	HZ	543	313	EP		528	59.200	.000							1.0

**December 16 2022 Hour: 6:28 30.8 Lat: 36.27N Lon: 7.89W Depth: 32F Agency: IGL Regional**  
**Magnitudes: 2.3ML IGL Rms: 0.1 secs**

**STRAIT OF GIBRALTAR Net: IMP**

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
MORF	HZ	134	330	EP		628	49.99	-.170							1.0
MESJ	HZ	177	351	EP		628	55.650	.150							1.0
GRNL	CZ	213	344	EP		629	0.000	.030							1.0

**December 16 2022 Hour: 21:13 24.7 Lat: 36.74N Lon: 9.76W Depth: 16F Agency: IGL Regional**  
**Magnitudes: 1.3ML IGL Rms: 0.1 secs**

**WEST OF GIBRALTAR Net: IMP**

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
MORF	HZ	116	57	EP		2113	43.190	.150							1.0
MORF	HN	116	57	ES		2113	56.410	.000							1.0
MORF	HE	116	57	IAML		2113	57.76			6	0.1				
MESJ	HZ	183	48	EP		2113	51.24	-.050							1.0
GRNL	CZ	184	34	EP		2113	51.46	-.040							1.0
GRNL	CN	184	34	ES		2114	10.98	-.060							1.0
GRNL	CN	184	34	IAML		2114	13.09			3	0.1				

**December 16 2022 Hour: 23:35 28.2 Lat: 32.19N Lon: 102.12W Depth: 5F Agency: IGL Distant**  
**Magnitudes: 5.5Mb IGL Rms: 0.1 secs**

**WESTERN TEXAS Net: NEIC**

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
GRNL	BZ	8172	55	EP		2347	1.82	-.070							1.0
GRNL	BZ	8172	55	I Amb		2347	5.17			81	1.2				
MORF	BZ	8207	56	EP		2347	3.960	.110							1.0
MORF	BZ	8207	56	I Amb		2347	6.55			55	1.0				
MESJ	BZ	8213	55	EP		2347	4.05	-.030							1.0
MESJ	BZ	8213	55	I Amb		2347	4.52			47	1.2				

**December 17 2022 Hour: 9:14 26.5 Lat: 37.16N Lon: 9.77W Depth: 1 Agency: IGL Regional**  
**Magnitudes: 1.2ML IGL Rms: 0.0 secs**

**NORTH ATLANTIC OCEAN Net: IMP**

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
MORF	HZ	100	81	EP		914	42.54	-.040							1.0
MORF	HE	100	81	ES		914	54.380	.040							1.0
MORF	HN	100	81	IAML		914	56.37			5	0.1				

**December 17 2022 Hour: 9:46 32.9 Lat: 1.44N Lon: 79.26W Depth: 10F Agency: IGL Distant**  
**Magnitudes: 5.0Mb IGL Rms: 0.1 secs**

**NEAR COAST OF ECUADOR Net: GFZ**

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
MORF	BZ	8210	52	EP		958	7.560	.030							1.0
MORF	BZ	8210	52	I Amb		958	8.70			30	1.0				
GRNL	BZ	8235	51	EP		958	8.830	.090							1.0
GRNL	BZ	8235	51	I Amb		958	10.62			7	0.8				
MESJ	BZ	8259	51	EP		958	9.92	-.120							1.0
MESJ	BZ	8259	51	I Amb		958	11.16			9	0.8				

**December 17 2022 Hour: 11:31 16.4 Lat: 36.36N Lon: 8.06W Depth: 16F Agency: IGL Regional**  
**Rms: 0.1 secs**

**WEST OF GIBRALTAR Net: IMP**

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
MORF	HZ	117	334	EP		1131	34.860	.010							1.0
MESJ	HZ	165	355	EP		1131	40.860	.120							1.0
GRNL	CZ	199	347	EP		1131	44.88	-.120							1.0

**December 17 2022 Hour: 11:39 6.1 Lat: 38.32N Lon: 9.49W Depth: 19F Agency: IGL Regional**  
**Magnitudes: 2.1ML IGL Rms: 0.1 secs**

**SW SESIMBRA, PORTUGAL Net: IMP**

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
GRNL	CZ	84	106	EP		1139	19.790	.200							1.0
GRNL	CE	84	106	ES		1139	29.440	.000							1.0
GRNL	CN	84	106	I AML		1139	30.47			56	0.2				
MESJ	HZ	124	115	EP		1139	24.97	-.120							1.0
MORF	HZ	135	147	EP		1139	26.44	-.090							1.0

**December 17 2022 Hour: 12:44 19.4 Lat: 33.26N Lon: 19.90W Depth: 10F Agency: IGL Regional**  
**Rms: 0.0 secs**

**MADEIRA ISLANDS, PORTUGAL REGION Net: IMP**

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
MORF	HZ	1116	63	EP		1246	37.13	-.030							1.0
GRNL	CZ	1157	59	EP		1246	41.950	.040							1.0
MESJ	HZ	1173	61	EP		1246	43.85	-.010							1.0

**December 17 2022 Hour: 16: 2 19.4 Lat: 37.00N Lon: 8.54W Depth: 13F Agency: IGL Regional**  
**Magnitudes: 1.6ML IGL Rms: 0.1 secs**

**WEST OF GIBRALTAR Net: IMP**

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
MORF	HZ	35	343	EP		16 2	25.45	-.000							1.0
MORF	HE	35	343	ES		16 2	29.970	.080							1.0
MORF	HN	35	343	I AML		16 2	30.89			51	0.1				
MESJ	HZ	98	17	EP		16 2	34.80	-.030							1.0
MESJ	HN	98	17	ES		16 2	46.190	.090							1.0
MESJ	HN	98	17	I AML		16 2	48.14			9	0.1				
GRNL	CZ	123	359	EP		16 2	38.47	-.250							1.0
GRNL	CN	123	359	ES		16 2	52.930	.100							1.0
GRNL	CN	123	359	I AML		16 2	53.97			26	0.1				

**December 17 2022 Hour: 23:14 22.1 Lat: 33.41N Lon: 6.15W Depth: 31F Agency: IGL Regional**  
**Magnitudes: 2.2ML IGL Rms: 0.1 secs**

**MOROCCO Net: IMP**

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
MORF	HZ	488	333	EP		2315	24.21	-.130							1.0
MORF	HN	488	333	ES		2316	9.810	.010							1.0
MORF	HN	488	333	I AML		2316	12.50			6	0.1				
MESJ	HZ	525	340	EP		2315	28.960	.080							1.0
GRNL	CZ	565	338	EP		2315	33.760	.120							1.0
GRNL	CE	565	338	ES		2316	25.82	-.070							1.0
GRNL	CN	565	338	I AML		2316	27.64			3	0.1				

December 17 2022 Hour: 23:24 51.5 Lat: 37.30N Lon: 8.59W Depth: 9F Agency: IGL Regional  
Magnitudes: 0.9ML IGL Rms: 0.1 secs

SW MONCHIQUE, PORTUGAL Net: IMP

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
MORF	HZ	6	272	EP		2324	53.09	-.190							1.0
MORF	HE	6	272	ES		2324	54.74	0.130							1.0
MORF	HN	6	272	IAML		2324	55.15		55	0.2					
MESJ	HZ	68	28	EP		2325	2.58	0.080							1.0
GRNL	CZ	90	1	EP		2325	5.89	0.030							1.0
GRNL	CN	90	1	ES		2325	16.33	-.040							1.0
GRNL	CN	90	1	IAML		2325	18.07		4	0.2					

December 18 2022 Hour: 1:10 40.5 Lat: 35.42N Lon: 3.64W Depth: 6F Agency: IGL Regional  
Rms: 0.1 secs

STRAIT OF GIBRALTAR Net: MAD

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
MESJ	HZ	490	305	EP		111	46.07	0.070							1.0
GRNL	CZ	532	306	EP		111	51.00	-.070							1.0

December 18 2022 Hour: 6:9 11.7 Lat: 36.62N Lon: 9.73W Depth: 15F Agency: IGL Regional  
Magnitudes: 1.1ML IGL Rms: 0.1 secs

WEST OF GIBRALTAR Net: IMP

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
GRNL	CZ	195	32	EP		6 9	39.78	-.090							1.0
GRNL	CN	195	32	ES		610	0.55	0.090							1.0
GRNL	CN	195	32	IAML		610	1.58		2	0.1					

December 19 2022 Hour: 5:30 3.0 Lat: 35.45N Lon: 3.64W Depth: 15F Agency: IGL Regional  
Rms: 0.0 secs

STRAIT OF GIBRALTAR Net: MAD

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
MESJ	HZ	488	304	EP		531	7.39	0.010							1.0
GRNL	CZ	530	305	EP		531	12.44	-.010							1.0

December 19 2022 Hour: 15:43 52.9 Lat: 37.23N Lon: 8.81W Depth: 20F Agency: IGL Regional  
Magnitudes: 1.6ML IGL Rms: 0.1 secs

S ALJEZUR, PORTUGAL Net: IMP

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
MORF	HZ	16	60	EP		1543	56.78	-.250							1.0
MORF	HE	16	60	ES		1544	0.07	0.060							1.0
MORF	HN	16	60	IAML		1544	0.38		108	0.2					
MESJ	HZ	85	37	EP		1544	6.63	0.030							1.0
MESJ	HE	85	37	ES		1544	16.78	0.210							1.0
MESJ	HN	85	37	IAML		1544	17.86		13	0.2					
GRNL	CZ	100	12	EP		1544	8.64	-.050							1.0
GRNL	CN	100	12	ES		1544	20.21	0.020							1.0
GRNL	CN	100	12	IAML		1544	20.96		22	0.3					

December 19 2022 Hour: 16:44 4.2 Lat: 36.63N Lon: 9.81W Depth: 16F Agency: IGL Regional  
Magnitudes: 1.5ML IGL Rms: 0.1 secs

WEST OF GIBRALTAR Net: IMP

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
MORF	HZ	128	54	EP		1644	24.10	0.120							1.0
MORF	HN	128	54	ES		1644	38.28	-.160							1.0
MORF	HN	128	54	IAML		1644	40.75		8	0.1					
GRNL	CZ	198	34	EP		1644	32.69	0.040							1.0

December 19 2022 Hour: 18:49 52.2 Lat: 36.74N Lon: 7.25W Depth: 9F Agency: IGL Regional  
Magnitudes: 1.3ML IGL Rms: 0.0 secs

STRAIT OF GIBRALTAR Net: IMP

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
MESJ	HZ	149	325	EP		1850	15.360	.050							1.0
MESJ	HE	149	325	ES		1850	32.13	-.050							1.0
MESJ	HN	149	325	IAML		1850	35.01			4	0.1				

December 20 2022 Hour: 10:34 24.6 Lat: 40.56N Lon: 124.42W Depth: 17F Agency: IGL Distant  
Magnitudes: 6.6Ms IGL Rms: 0.1 secs

OFFSHORE NORTHERN CALIFORNIA Net: NEIC

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
GGNV	BZ	9052	46	EP		1046	40.62	-.090							1.0
GGNV	BN	9052	46	ES		1056	51.74	-.040							1.0
GGNV	BN	9052	46	IAMs_20		1118	23.66			39979	26.8				
GRNL	BN	9136	46	ES		1056	59.57	-.010							1.0
GRNL	BN	9136	46	IAMs_20		1117	22.51			34800	24.8				
MESJ	BN	9179	46	ES		1057	3.50	-.040							1.0
MESJ	BZ	9179	46	IAMs_20		1122	59.74			22129	21.7				
MORF	BZ	9195	46	EP		1046	47.670	.100							1.0
MORF	BN	9195	46	ES		1057	5.250	.080							1.0
MORF	BN	9195	46	IAMs_20		1117	16.87			26667	21.4				

December 21 2022 Hour: 0:22 15.4 Lat: 36.69N Lon: 10.45W Depth: 10F Agency: IGL Regional  
Magnitudes: 1.7ML IGL Rms: 0.1 secs

AZORES-CAPE ST. VINCENT RIDGE Net: IMP

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
MORF	HZ	174	66	EP		022	41.560	.060							1.0
MORF	HN	174	66	ES		023	0.670	.100							1.0
MORF	HE	174	66	IAML		023	3.07			15	0.3				
GRNL	CZ	230	46	EP		022	48.15	-.180							1.0
GRNL	CE	230	46	ES		023	12.500	.120							1.0
GRNL	CN	230	46	IAML		023	14.93			6	0.3				
MESJ	HZ	236	56	EP		022	48.99	-.120							1.0
MESJ	HN	236	56	ES		023	13.730	.000							1.0
MESJ	HE	236	56	IAML		023	17.35			2	0.1				

December 21 2022 Hour: 0:29 35.9 Lat: 38.72N Lon: 8.44W Depth: 10F Agency: IGL Regional  
Magnitudes: 0.5ML IGL Rms: 0.1 secs

NE VENDAS NOVAS, PORTUGAL Net: IMP

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
GRNL	CE	69	189	ES		029	55.410	.050							1.0
GRNL	CN	69	189	IAML		029	55.94			3	0.2				
MESJ	HZ	100	169	EP		029	51.910	.070							1.0
MESJ	HN	100	169	ES		030	3.35	-.120							1.0
MESJ	HE	100	169	IAML		030	4.69			1.00	0.3				

December 21 2022 Hour: 14:50 31.4 Lat: 38.73N Lon: 8.45W Depth: 0 Agency: IGL Regional  
Magnitudes: 2.0ML IGL Rms: 0.1 secs

NE VENDAS NOVAS, PORTUGAL Net: IMP

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
GRNL	CZ	69	188	EP		1450	42.51	-.090							1.0
GRNL	CN	69	188	ES		1450	50.770	.000							1.0
GRNL	CN	69	188	IAML		1450	52.73			61	0.1				
MESJ	HZ	101	168	EP		1450	47.800	.160							1.0
MESJ	HE	101	168	ES		1450	59.33	-.160							1.0
MESJ	HN	101	168	IAML		1451	1.82			30	0.0				
MORF	HZ	159	186	EP		1450	56.720	.090							1.0

**December 21 2022 Hour: 18: 7 1.6 Lat: 37.34N Lon: 8.56W Depth: 17F Agency: IGL Regional  
Magnitudes: 1.1ML IGL Rms: 0.2 secs**

**NE MONCHIQUE, PORTUGAL Net: IMP**

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
MORF	HZ	9	247	EP		18	7	4.30-.410							1.0
MORF	HN	9	247	ES		18	7	6.96-.050							1.0
MORF	HN	9	247	IAML		18	7	7.44		40	0.1				
MESJ	HZ	63	28	EP		18	7	12.190.330							1.0
MESJ	HN	63	28	ES		18	7	19.470.090							1.0
MESJ	HE	63	28	IAML		18	7	20.50		7	0.1				
GRNL	CN	86	359	ES		18	7	25.280.060							1.0
GRNL	CN	86	359	IAML		18	7	25.75		10	0.1				

**December 22 2022 Hour: 1:56 35.4 Lat: 37.49N Lon: 8.47W Depth: 20F Agency: IGL Regional  
Magnitudes: 0.6ML IGL Rms: 0.1 secs**

**SE ODEMIRA, PORTUGAL Net: IMP**

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
MORF	HZ	26	217	EP		156	40.700.020								1.0
MORF	HE	26	217	ES		156	44.670.150								1.0
MORF	HN	26	217	IAML		156	45.09			6	0.1				
MESJ	HZ	44	30	EP		156	43.08-.010								1.0
MESJ	HN	44	30	ES		156	48.700.020								1.0
MESJ	HN	44	30	IAML		156	49.32			2	0.1				
GRNL	CZ	69	353	EP		156	46.58-.050								1.0
GRNL	CN	69	353	ES		156	54.67-.140								1.0
GRNL	CN	69	353	IAML		156	55.69			5	0.1				

**December 22 2022 Hour: 13:13 56.0 Lat: 8.04S Lon: 74.50W Depth:157FAgency: IGL Distant  
Magnitudes: 5.2Mb IGL Rms: 0.1 secs**

**CENTRAL PERU Net: NEIC**

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
MORF	BZ	8477	49	EP		1325	27.050.100								1.0
MORF	BZ	8477	49	IAMB		1325	29.39			85	1.0				
GRNL	BZ	8517	48	EP		1325	28.920.030								1.0
GRNL	BZ	8517	48	IAMB		1325	30.32			43	0.5				
MESJ	BZ	8535	48	EP		1325	29.65-.140								1.0
MESJ	BZ	8535	48	IAMB		1325	31.04			16	0.7				

**December 23 2022 Hour: 21:52 27.0 Lat: 35.45N Lon: 3.61W Depth: 14F Agency: IGL Regional  
Rms: 0.0 secs**

**STRAIT OF GIBRALTAR Net: MAD**

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
GRNL	CZ	532	305	EP		2153	36.750.000								1.0

**December 23 2022 Hour: 22:33 37.2 Lat: 35.39N Lon: 3.60W Depth: 21F Agency: IGL Regional  
Rms: 0.1 secs**

**STRAIT OF GIBRALTAR Net: MAD**

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
MESJ	HZ	495	305	EP		2234	41.78-.080								1.0
GRNL	CZ	536	306	EP		2234	47.010.080								1.0

**December 24 2022 Hour: 0:35 37.0 Lat: 35.44N Lon: 3.62W Depth: 16F Agency: IGL Regional  
Rms: 0.1 secs**

**STRAIT OF GIBRALTAR Net: MAD**

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
MESJ	HZ	491	304	EP		036	41.54-.020								1.0
MORF	HZ	497	296	EP		036	42.26-.140								1.0
GRNL	CZ	532	305	EP		036	46.790.170								1.0

**December 24 2022 Hour: 8:38 23.1 Lat: 35.34N Lon: 4.95W Depth: 32F Agency: IGL Regional**  
**Magnitudes: 3.2ML IGL Rms: 0.1 secs**

**MOROCCO Net: IMP**

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
MORF	HZ	397	304	EP		839	15.290	.140							1.0
MESJ	HZ	403	314	EP		839	15.66-	.140							1.0
MESJ	HN	403	314	ES		839	54.350	.100							1.0
MESJ	HN	403	314	IAML		839	56.95		47	0.2					
GRNL	CZ	445	315	EP		839	20.82-	.150							1.0
GRNL	CN	445	315	ES		840	3.260	.050							1.0
GRNL	CN	445	315	IAML		840	4.98		68	0.3					

**December 24 2022 Hour: 16:10 9.6 Lat: 35.35N Lon: 3.63W Depth: 25F Agency: IGL Regional**  
**Rms: 0.1 secs**

**STRAIT OF GIBRALTAR Net: MAD**

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
MESJ	HZ	495	305	EP		1611	14.000	.040							1.0
MORF	HZ	500	297	EP		1611	14.54-	.110							1.0
GRNL	CZ	537	306	EP		1611	19.110	.070							1.0

**December 24 2022 Hour: 18:28 40.4 Lat: 35.40N Lon: 3.57W Depth: 27F Agency: IGL Regional**  
**Rms: 0.0 secs**

**STRAIT OF GIBRALTAR Net: MAD**

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
MESJ	HZ	497	304	EP		1829	44.83-	.000							1.0
GRNL	CZ	539	305	EP		1829	49.900	.000							1.0

**December 24 2022 Hour: 22:34 19.9 Lat: 36.88N Lon: 10.99W Depth: 18F Agency: IGL Regional**  
**Magnitudes: 1.8ML IGL Rms: 0.0 secs**

**AZORES-CAPE ST. VINCENT RIDGE Net: IMP**

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
GRNL	CZ	254	57	EP		2234	55.04-	.020							1.0
GRNL	CE	254	57	ES		2235	20.780	.020							1.0
GRNL	CE	254	57	IAML		2235	23.26		6	0.2					

**December 26 2022 Hour: 4:43 10.6 Lat: 36.48N Lon: 9.84W Depth: 40F Agency: IGL Regional**  
**Magnitudes: 1.5ML IGL Rms: 0.1 secs**

**WEST OF GIBRALTAR Net: IMP**

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
MORF	HZ	140	49	EP		443	30.850	.000							1.0
MESJ	HZ	209	43	EP		443	39.29-	.030							1.0
GRNL	CZ	213	32	EP		443	39.65-	.210							1.0
GRNL	CN	213	32	ES		444	1.450	.240							1.0
GRNL	CN	213	32	IAML		444	2.65		4	0.3					

**December 26 2022 Hour: 5:13 7.4 Lat: 38.97N Lon: 8.72W Depth: 2F Agency: IGL Regional**  
**Magnitudes: 0.7ML IGL Rms: 0.1 secs**

**E BENAVENTE, PORTUGAL Net: IMP**

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
GRNL	CE	97	172	ES		513	34.500	.100							1.0
GRNL	CE	97	172	IAML		513	35.01		1	0.0					
MESJ	HZ	133	161	EP		513	28.73-	.070							1.0
MESJ	HN	133	161	ES		513	44.37-	.030							1.0
MESJ	HE	133	161	IAML		513	45.58		1	0.1					

**December 26 2022 Hour: 12:21 8.0 Lat: 14.49N Lon: 40.01E Depth: 10F Agency: IGL Distant**  
**Magnitudes: 5.5Mb IGL Rms: 0.1 secs**

**ERITREA-ETHIOPIA REGION Net: NEIC**

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
MESJ	BZ	5397	308	EP		1229	50.89-	.090							1.0
MESJ	BZ	5397	308	IAMB		1229	54.38		57	1.4					
GRNL	BZ	5434	308	EP		1229	53.640	.090							1.0
GRNL	BZ	5434	308	IAMB		1229	57.03		69	1.4					

**December 26 2022 Hour: 20:10 8.2 Lat: 37.88N Lon: 9.01W Depth: 10F Agency: IGL Regional**  
**Magnitudes: 0.9ML IGL Rms: 0.1 secs**

**SW SINES, PORTUGAL Net: IMP**

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
GRNL	CZ	46	57	EP		2010	15.80	-.040							1.0
GRNL	CN	46	57	ES		2010	21.440	.020							1.0
GRNL	CN	46	57	IAML		2010	22.37			7	0.1				
MESJ	HZ	70	93	EP		2010	19.570	.030							1.0
MESJ	HN	70	93	ES		2010	27.70	-.120							1.0
MESJ	HE	70	93	IAML		2010	29.10			4	0.2				
MORF	HZ	71	154	EP		2010	19.72	-.080							1.0
MORF	HN	71	154	ES		2010	28.450	.180							1.0
MORF	HN	71	154	IAML		2010	29.37			10	0.2				

**December 26 2022 Hour: 21:59 15.6 Lat: 37.12N Lon: 7.92W Depth: 21F Agency: IGL Regional**  
**Magnitudes: 0.6ML IGL Rms: 0.1 secs**

**SW S.BRAS DE ALPORTEL, PORTUGAL Net: IMP**

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
MORF	HZ	68	287	EP		2159	26.76	-.070							1.0
MORF	HE	68	287	ES		2159	35.100	.070							1.0
MORF	HN	68	287	IAML		2159	36.27			2	0.2				

**December 27 2022 Hour: 11:9 28.4 Lat: 35.61N Lon: 6.89W Depth: 31F Agency: IGL Regional**  
**Magnitudes: 0.6ML IGL Rms: 0.1 secs**

**STRAIT OF GIBRALTAR Net: IMP**

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
MORF	HZ	246	320	EP		1110	0.73	-.220							1.0
MESJ	HZ	274	335	EP		1110	4.640	.140							1.0
GRNL	CZ	315	332	EP		1110	9.640	.100							1.0

**December 28 2022 Hour: 2:31 7.0 Lat: 35.57N Lon: 9.71W Depth: 31F Agency: IGL Regional**  
**Magnitudes: 1.4ML IGL Rms: 0.0 secs**

**WEST OF GIBRALTAR Net: IMP**

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
MORF	HZ	215	26	EP		231	35.64	-.050							1.0
MORF	HE	215	26	ES		231	56.650	.010							1.0
MORF	HN	215	26	IAML		231	58.31			4	0.0				
GRNL	CN	300	19	ES		232	14.880	.040							1.0
GRNL	CN	300	19	IAML		232	16.49			2	0.1				

**December 28 2022 Hour: 12:24 20.8 Lat: 38.61N Lon: 23.69E Depth: 9F Agency: IGL Distant**  
**Magnitudes: 5.2Mb IGL Rms: 0.0 secs**

**GREECE Net: NEIC**

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
MESJ	BZ	2781	278	EP		1229	45.090	.010							1.0
MESJ	BZ	2781	278	IAMB		1229	46.31			37	0.5				
GRNL	BZ	2806	279	EP		1229	47.080	.040							1.0
GRNL	BZ	2806	279	IAMB		1229	47.95			27	0.9				
MORF	BZ	2831	277	EP		1229	49.17	-.050							1.0
MORF	BZ	2831	277	IAMB		1229	51.86			136	1.8				

**December 28 2022 Hour: 17:16 36.1 Lat: 41.81N Lon: 79.54E Depth: 10F Agency: IGL Distant**  
**Magnitudes: 5.6Mb IGL Rms: 0.1 secs**

**KYRGYZSTAN Net: NEIC**

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
MESJ	BZ	7181	299	EP		1727	13.780	.020							1.0
MESJ	BZ	7181	299	IAMB		1727	15.82			42	1.1				
GRNL	BZ	7190	299	EP		1727	14.350	.110							1.0
GRNL	BZ	7190	299	IAMB		1727	16.53			68	1.4				
MORF	BZ	7246	299	EP		1727	17.51	-.130							1.0
MORF	BZ	7246	299	IAMB		1727	19.01			101	1.8				



**December 28 2022 Hour: 19:12 7.6 Lat: 36.58N Lon: 9.74W Depth: 16F Agency: IGL Regional**  
**Magnitudes: 1.0ML IGL Rms: 0.1 secs**

**WEST OF GIBRALTAR Net: IMP**

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
MORF	HZ	126	50	EP		1912	27.07	-.110							1.0
MORF	HN	126	50	ES		1912	41.58	0.110							1.0
MORF	HE	126	50	IAML		1912	43.12			3	0.2				

**December 28 2022 Hour: 21:11 5.3 Lat: 16.53S Lon: 72.24W Depth: 66F Agency: IGL Distant**  
**Magnitudes: 5.5Mb IGL Rms: 0.0 secs**

**NEAR COAST OF SOUTHERN PERU Net: GFZ**

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
MORF	BZ	8929	46	EP		2123	9.02	0.020							1.0
MORF	BZ	8929	46	IAMB		2123	10.87			72	0.9				
GRNL	BZ	8980	46	EP		2123	11.38	0.040							1.0
GRNL	BZ	8980	46	IAMB		2123	12.50			74	1.1				
MESJ	BZ	8992	46	EP		2123	11.88	-.060							1.0
MESJ	BZ	8992	46	IAMB		2123	13.24			71	1.1				

**December 29 2022 Hour: 2:45 25.8 Lat: 42.68N Lon: 9.52W Depth: 22F Agency: IGL Regional**  
**Magnitudes: 3.2ML IGL Rms: 0.1 secs**

**SPAIN Net: IMP**

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
GRNL	CZ	514	171	EP		246	32.58	-.110							1.0
GRNL	CN	514	171	ES		247	21.33	-.190							1.0
GRNL	CN	514	171	IAML		247	24.51			31	0.3				
MESJ	HZ	549	168	EP		246	36.94	0.040							1.0
MORF	HZ	602	173	EP		246	43.36	0.030							1.0
MORF	HN	602	173	ES		247	40.17	0.250							1.0
MORF	HE	602	173	IAML		247	42.78			39	0.3				

**December 29 2022 Hour: 3:3 22.5 Lat: 35.75N Lon: 10.25W Depth: 23F Agency: IGL Regional**  
**Magnitudes: 1.4ML IGL Rms: 0.1 secs**

**AZORES-CAPE ST. VINCENT RIDGE Net: IMP**

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
MORF	HZ	224	39	EP		3 3	53.87	0.010							1.0
MORF	HN	224	39	ES		3 4	16.90	0.140							1.0
MORF	HE	224	39	IAML		3 4	19.02			3	0.1				
GRNL	CZ	301	29	EP		3 4	3.34	-.100							1.0
GRNL	CN	301	29	ES		3 4	33.28	-.060							1.0
GRNL	CE	301	29	IAML		3 4	34.55			1	0.1				

**December 30 2022 Hour: 7:30 10.5 Lat: 36.08N Lon: 8.56W Depth: 32F Agency: IGL Regional**  
**Magnitudes: 2.1ML IGL Rms: 0.1 secs**

**WEST OF GIBRALTAR Net: IMP**

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
MORF	HZ	136	357	EP		730	30.01	-.090							1.0
MORF	HN	136	357	ES		730	44.40	-.030							1.0
MORF	HE	136	357	IAML		730	45.42			38	0.2				
MESJ	HZ	197	9	EP		730	37.81	0.110							1.0
MESJ	HE	197	9	ES		730	57.81	0.220							1.0
MESJ	HN	197	9	IAML		730	58.76			8	0.2				
GRNL	CZ	225	360	EP		730	40.89	-.220							1.0
GRNL	CN	225	360	ES		731	3.49	0.010							1.0
GRNL	CN	225	360	IAML		731	4.55			14	0.1				

**December 30 2022 Hour: 17:42 17.9 Lat: 36.51N Lon: 7.96W Depth: 8F Agency: IGL Regional**  
**Magnitudes: 1.2ML IGL Rms: 0.0 secs**

**STRAIT OF GIBRALTAR Net: IMP**

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
MORF	HZ	108	325	EP		1742	35.19	0.030							1.0
MORF	HN	108	325	ES		1742	47.70	-.030							1.0
MORF	HE	108	325	IAML		1742	49.98			5	0.1				

**December 30 2022 Hour: 21:15 43.2 Lat: 37.71N Lon: 8.33W Depth: 27F Agency: IGL Regional  
Rms: 0.0 secs**

**NW OURIQUE, PORTUGAL Net: IMP**

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
MESJ	HZ	17	34	EP		2115	48.09	-.050							1.0
MESJ	HE	17	34	ES		2115	51.780	.030							1.0
GRNL	CN	49	334	ES		2115	58.060	.020							1.0

**December 31 2022 Hour: 6:13 27.9 Lat: 54.93N Lon: 160.29W Depth: 39F Agency: IGL Distant  
Magnitudes: 5.1Mb IGL Rms: 0.0 secs**

**ALASKA PENINSULA Net: NEIC**

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
GRNL	BZ	9353	22	EP		625	54.67	-.000							1.0
GRNL	BZ	9353	22	IAMB		625	55.24			14	0.9				

**December 31 2022 Hour: 7:5 54.6 Lat: 37.11N Lon: 1.90W Depth: 0 Agency: IGL Regional  
Rms: 0.1 secs**

**SPAIN Net: MAD**

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
MESJ	HZ	565	280	EP		7 7	9.68	-.130							1.0
GRNL	CZ	599	283	EP		7 7	14.000	.040							1.0
MORF	HZ	600	274	EP		7 7	14.160	.090							1.0

**December 31 2022 Hour: 11:45 21.8 Lat: 37.51N Lon: 7.59W Depth: 17F Agency: IGL Regional  
Magnitudes: 0.9ML IGL Rms: 0.1 secs**

**NW ALCOUTIM, PORTUGAL Net: IMP**

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
MESJ	HZ	66	303	EP		1145	32.640	.090							1.0
MESJ	HN	66	303	ES		1145	40.31	-.090							1.0
MESJ	HN	66	303	IAML		1145	41.58			6	0.2				

**December 31 2022 Hour: 12:31 25.7 Lat: 37.25N Lon: 13.78W Depth: 24F Agency: IGL Regional  
Magnitudes: 2.9ML IGL Rms: 0.1 secs**

**AZORES-CAPE ST. VINCENT RIDGE Net: MAD**

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
MORF	HZ	454	88	EP		1232	25.280	.090							1.0
MORF	HN	454	88	ES		1233	8.690	.050							1.0
MORF	HN	454	88	IAML		1233	11.65			33	0.3				
GRNL	CZ	469	77	EP		1232	26.71	-.220							1.0
GRNL	CN	469	77	ES		1233	11.48	-.170							1.0
GRNL	CN	469	77	IAML		1233	15.69			23	0.3				
MESJ	HZ	495	81	EP		1232	30.210	.090							1.0
MESJ	HE	495	81	ES		1233	17.330	.170							1.0
MESJ	HN	495	81	IAML		1233	23.69			17	0.2				

**December 31 2022 Hour: 15:51 45.3 Lat: 37.31N Lon: 8.61W Depth: 14F Agency: IGL Regional  
Magnitudes: 0.1ML IGL Rms: 0.1 secs**

**W MONCHIQUE, PORTUGAL Net: IMP**

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
MORF	HZ	4	256	EP		1551	47.50	-.220							1.0
MORF	HE	4	256	ES		1551	49.600	.120							1.0
MORF	HN	4	256	IAML		1551	50.06			9	0.1				
MESJ	HE	68	30	ES		1552	4.350	.110							1.0