

Republic of Lebanon
National Council for Scientific Research

Provisional Seismological Bulletin

from the

NATIONAL SEISMIC NETWORK

January

2020

Prepared by
The National Centre for Geophysical Research
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GENERAL BULLETIN INFORMATION

The National Centre for Geophysical Research is a governmental agency established 1975 in Lebanon by the National Council for Scientific Research (CNRS). The mission of the Centre, among other assignments, is the monitoring of seismic activity within the national territory. Currently, the national seismic network is under deployment; it has been officially registered as GRAL, an acronym for Geophysical Research Arrays of Lebanon. Station coordinates and status are given below.

Since 1993, the Centre has been participating in a regional initiative by the UNESCO and the USGS known as RELEMR, i.e. Reducing Earthquake Losses in the Eastern Mediterranean Region.

Within this framework, the Centre routinely contributes to the database set up for this purpose and maintained by the Euro-Mediterranean Seismological Centre (EMSC). For coherence, the Centre has adopted the recommended seismic analysis system SEISAN developed by Jens Havskov and Lars Ottemoller from the University of Bergen, Norway.

The localization program currently used for locating earthquakes is Hypocenter (Lienert et al., 1986). Plane parallel layers are assumed for local and regional events, while the IASPEI travel time tables are used for distant events.

The velocity model used for all local and regional events is the one currently adopted by the RELEMR initiative.

P-wave velocity (km/sec)	depth to top of layer (km)
6.2	0.0
6.8	14.0
8.05	34.0
8.25	50.0
8.5	80.0

Magnitudes are calculated from the coda duration. The coda wave magnitude is estimated via the formula:

$$M_c = 0.08 + 1.63 * \log_{10}(T) + 0.0009 * D.$$

where T is the coda duration (sec) and D is the epicentral distance (km). The coefficients above were adopted at the outset of our Centre in 1980 and thus are still in use for the sake of continuity.

All available coda values are used for magnitude calculations. No station corrections are used for either travel times or magnitudes calculations. The Vp/Vs velocity ratio used in both layered models above is 1.74.

As a general policy, neither depths, nor epicenters, are fixed unless stated otherwise since this might restrict later use of the data. Consequently, some event locations might be unrealistic such as zero depth earthquakes or teleseismic locations off by 1000 km. However, the locations are based on the available data and reflect the localization procedure and the models used.

STATIONS USED

The stations listed below are operated by the National Centre for Geophysical Research. They constitute the basic setup of the National Seismic Network of Lebanon.

However, readings from other cooperating agencies are also used in locating the events and thus more stations may appear in the event lists than in the station list; it is worth mentioning the systematic use of arrival times from the Cypriot seismic network CSS in order to constrain events corresponding to an active zone off the Lebanese shorelines.

STATION	LATITUDE	LONGITUDE	HEIGHT (m)	NAME	COMMENTS
BHL	3354.25N	3539.25E	1000	BHANNES	Opened May 1980
HWQ	3416.68N	3556.78E	1161	HAWQA	Opened Jan 2001
MATL	3329.32N	3519.78E	5	MATARIH	Nov2000-Sep2012
FKH	3414.69N	3624.61E	1152	FAKEHEH	Opened Dec 2004
RCY	3329.79N	3550.14E	1370	RACHAYA	Opened Jun 2006
BEYL	3352.30N	3529.59E	49	BEIRUT	Opened Jul 2006
NAQL	3307.02N	3508.46E	83	NAQOURA	Jul2008-Jan2012
DQRL	3342.34N	3534.21E	963	DEIR QAMAR	Opened Mar 2010
QRWL	3332.86N	3540.93E	875	QARAOUN	Opened Oct 2011
SHBL	3320.90N	3544.63E	1422	CHEBAA	Opened Oct 2011
ZAHL	3351.48N	3553.12E	1211	ZAHLE	Opened Aug 2015
BEIL	3432.50N	3611.08E	572	BEINO	Opened Jan 2017

REGIONAL AND DISTANT EARTHQUAKES

Because regional events and teleseisms are not localized, but simply identified, EMSC determination data are given along with phase arrivals (in general first arrival) at the stations of our network.

MACROSEISMIC DATA

Macroseismic data, if available, are included in the bulletin.

MONTHLY EPICENTER MAPS

Maps will be found on the last page.

ELECTRONIC PUBLICATION

This provisional bulletin is available for download in pdf format on:
<http://www.cnrs.edu.lb/grdownload.html>

REFERENCES

- Havskov, J. and Ottemoller, L.(2001). SEISAN: The Earthquake Analysis Software.
-version 7.2-
Institute of Solid Earth Physics, University of Bergen.
<http://www.ifjf.uib.no/seismo/software/seisan.html>
- Lienert, B.R., Berg, E. and Frazer, L.N.(1986). Hypocenter: An earthquake location method using centered, scaled, and adaptively least squares. Bull. Seism. Soc. Am., 76., pp 771-783.

Abbreviations:

TIME: Origin time in UTC (hr. min. and sec.) or data file onset time if event is not located.

LAT: Latitude of epicenter

LON: Longitude of epicenter

DEPTH: Focal depth in kilometer (trailing F indicates fixed depth)

AGENCY: REL throughout the bulletin, aka. REsearch Lebanon

MAGNITUDES: Up to 3 different magnitudes can be given followed by type and reporting agency, e.g. 3.1 MC REL - coda magnitude calculated according to above mentioned formula.

EMSC: Euro-Mediterranean Seismological Centre.

OT: Origin Time

RMS: Root mean square value of travel time residuals

STAT: Station code

CO: Component; S:short period, L:long period, B:broadband.

DIST: Epicenter distance (km)

AZI: Azimuth from source to station

PHAS: Phase; The first letter characterizes onset E(mergent) or I(mpulsive)

P: Polarity (C for compression, D for dilatation)

HR: Hour

MN: Minute

SECON: Seconds

TRES: Residual (seconds)

CODA: Signal duration in seconds

AMPL: Ground Amplitude ($0.5 \times (\text{peak to peak})$), (nm) at period PERI

PERI: Period where amplitude is measured

BAZ: Back azimuth (station to event)

ARES: Back azimuth residual

VELO: Apparent phase velocity (km/sec)

WT: Weight of phase in the location

*: An asterisk before the phase arrival time implies a potential timing error. If an S phase is read, differential S-P times will be used in the hypocenter location.

January 1 2020 Hour: 19:28 50.8

Agency: REL Distant

EMSC OT=19:28:50.8 33.03S 178.06W 10Km M=5.3 SOUTH OF KERMADEC ISLANDS

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
FKH	SZ			EP		1948	46.58								
HWQ	BZ			EP		1948	47.28								
BHL	BZ			EP		1948	47.28								
RCY	SZ			EP		1948	47.95								
DQRL	SZ			EP		1948	48.44								
QRWL	SZ			EP		1948	47.28								

January 2 2020 Hour: 4:29 6.2

Agency: REL Distant

EMSC OT=04:29:06.2 34.03N 60.37E 10Km M=5.5 NORTHEASTERN IRAN

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
FKH	SZ			EP		433	39.00								
HWQ	BZ			EP		433	43.13								
RCY	SZ			EP		433	45.29								
BHL	BZ			EP		433	45.98								
SHBL	SZ			EP		433	46.37								
QRWL	SZ			EP		433	46.57								
DQRL	SZ			EP		433	47.26								

January 2 2020 Hour: 14:35 38.7 Lat: 35.10N Lon: 34.59E Depth: 48 Agency: REL Regional
Magnitudes: 3.2MC REL Rms: 0.1 secs

CYPRUS REGION

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
HWQ	BZ	154	126	EP		1436	1.17	0.09							1.0
HWQ	BN	154	126	ES		1436	17.74	0.07							1.0
BEIL	SZ	159	113	EP		1436	1.52	-0.03	68						1.0
BEIL	SN	159	113	ES		1436	18.49	0.00							1.0
BHL	BZ	165	143	EP		1436	2.29	-0.09							1.0
BHL	BN	165	143	ES		1436	19.86	-0.07							1.0
DQRL	SZ	179	150	EP		1436	4.17	0.04							1.0
FKH	SZ	192	119	EP		1436	5.60	-0.11							1.0
QRWL	SZ	200	149	EP		1436	6.67	0.08							1.0
RCY	SZ	212	147	EP		1436	8.23	0.10							1.0
SHBL	SZ	222	151	EP		1436	9.26	-0.07							1.0

January 10 2020 Hour: 1:5 36.6

Agency: REL Distant

EMSC OT=01:05:36.6 21.49S 175.18W 10Km M=5.3 TONGA

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
BEIL	SZ			EP		125	26.69								
HWQ	BZ			EP		125	26.59								
BHL	BZ			EP		125	27.90								
RCY	SZ			EP		125	28.06								
DQRL	SZ			EP		125	28.67								
QRWL	SZ			EP		125	28.31								

January 10 2020 Hour: 1:34 42.8 Lat: 35.28N Lon: 36.64E Depth: 0 Agency: REL Regional
Magnitudes: 2.7MC REL Rms: 0.0 secs

SYRIA REGION

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
BEIL	SZ	92	207	EP		134	57.66	-0.01	36						1.0
BEIL	SN	92	207	ES		135	8.67	-0.02							1.0
HWQ	BZ	128	210	EP		135	3.48	-0.02							1.0
HWQ	BN	128	210	ES		135	18.86	0.03							1.0
BHL	BZ	178	211	EP		135	10.87	0.02							1.0
DQRL	SZ	201	210	EP		135	13.84	-0.01							1.0
RCY	SZ	212	201	EP		135	15.27	0.02							1.0

January 12 2020 Hour: 3:39 35.7 Lat: 33.51N Lon: 35.68E Depth: 0 Agency: REL Local
Magnitudes: 2.4MC REL Rms: 0.0 secs

WEST BEKAA REGION

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
QRWL	SZ	4	358	EP		339	36.42	0.01	25						1.0
QRWL	SN	4	358	ES		339	36.90	0.00							1.0
RCY	SZ	14	97	EP		339	38.03	-0.03							1.0
DQRL	SZ	24	334	EP		339	39.66	0.05							1.0
DQRL	SN	24	334	ES		339	42.43	-0.04							1.0
ZAHL	SZ	43	26	EP		339	42.66	0.02							1.0
BHL	BZ	44	356	EP		339	42.72	-0.06							1.0
HWQ	BZ	88	16	EP		339	50.03	0.03							1.0

January 12 2020 Hour: 13:58 20.2 Lat: 32.67N Lon: 35.81E Depth: 1 Agency: REL Regional
Magnitudes: 3.1MC REL Rms: 0.1 secs

JORDAN REGION

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
RCY	SZ	92	1	EP		1358	35.02	-0.01	68						1.0
RCY	SN	92	1	ES		1358	46.07	0.08							1.0
QRWL	SZ	98	353	EP		1358	36.01	-0.05							1.0
QRWL	SN	98	353	ES		1358	47.70	-0.08							1.0
DQRL	SZ	117	349	EP		1358	39.16	0.05							1.0
ZAHL	SZ	132	3	EP		1358	41.37	-0.11							1.0
BHL	BZ	138	354	EP		1358	42.42	0.12							1.0
HWQ	BZ	179	4	EP		1358	48.38	0.02							1.0
BEIL	SZ	211	9	EP		1358	52.30	-0.02							1.0

January 12 2020 Hour: 15:15 17.9 Lat: 33.49N Lon: 36.44E Depth: 9 Agency: REL Regional
Magnitudes: 2.7MC REL Rms: 0.1 secs

SYRIA REGION

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
RCY	SZ	56	271	EP		1515	27.00	-0.10							1.0
RCY	SN	56	271	ES		1515	34.01	0.08							1.0
ZAHL	SZ	66	309	EP		1515	28.53	-0.11							1.0
QRWL	SZ	71	276	EP		1515	29.45	0.05	39						1.0
FKH	SZ	84	358	EP		1515	31.63	0.09							1.0
DQRL	SZ	84	287	EP		1515	31.64	0.08							1.0
DQRL	SE	84	287	ES		1515	41.69	-0.01							1.0
BHL	BZ	86	303	EP		1515	31.78	-0.08							1.0

January 13 2020 Hour: 19:31 14.8 Agency: REL Distant

EMSC OT=19:31:14.8 24.67S 178.61E 558Km M=4.8 SOUTH OF FIJI ISLANDS

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
FKH	SZ			EP		1949	53.32								
BEIL	SZ			EP		1949	53.71								
RCY	SZ			EP		1949	54.81								
BHL	BZ			EP		1949	54.96								
QRWL	SZ			EP		1949	54.96								
DQRL	SZ			EP		1949	55.35								

January 15 2020 Hour: 0:14 19.2 Agency: REL Distant

EMSC OT=00:14:19.2 23.72S 179.94W 522Km M=5.3 SOUTH OF FIJI ISLANDS

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
BEIL	SZ			EP		033	3.48								
FKH	SZ			EP		033	3.07								
HWQ	BZ			EP		033	3.61								
ZAHL	SZ			EP		033	4.16								
BHL	BZ			EP		033	4.63								
RCY	SZ			EP		033	4.83								
DQRL	SZ			EP		033	5.38								
QRWL	SZ			EP		033	5.11								

January 15 2020 Hour: 1:48 56.3

Agency: REL Regional

EMSC OT=01:48:56.3 34.97N 27.32E 40Km M=2.9 EASTERN MEDITERRANEAN SEA

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
RCY	SZ			EP		150	31.58								
ZAHL	SZ			EP		150	31.15								
HWQ	BZ			EP		150	32.03								
BEIL	SZ			EP		150	33.98								
FKH	SZ			EP		150	37.11								

January 19 2020 Hour: 6:15 44.8 Lat: 33.71N Lon: 35.82E Depth: 4 Agency: REL Local

Magnitudes: 2.8MC REL

Rms: 0.0 secs

WEST BEKAA REGION

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
QRWL	SZ	22	216	EP		615	48.44	-0.06	43						1.0
DQRL	SZ	24	269	EP		615	48.74	0.05							1.0
DQRL	SN	24	269	ES		615	51.59	0.01							1.0
RCY	SZ	24	177	EP		615	48.76	0.02							1.0
RCY	SN	24	177	ES		615	51.67	0.00							1.0
BHL	BZ	27	324	EP		615	49.13	-0.05							1.0
HWQ	BZ	64	10	EP		615	55.18	0.03							1.0
BEIL	SZ	98	20	EP		616	0.62	-0.00							1.0

January 19 2020 Hour: 6:17 16.0 Lat: 33.70N Lon: 35.82E Depth: 7 Agency: REL Local

Magnitudes: 3.1MC REL

Rms: 0.1 secs

WEST BEKAA REGION

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
QRWL	SZ	22	217	EP		617	19.77	0.05	66						1.0
RCY	SZ	23	177	EP		617	19.93	-0.02							1.0
RCY	SN	23	177	ES		617	22.89	0.00							1.0
DQRL	SZ	24	271	EP		617	20.05	0.06							1.0
DQRL	SN	24	271	ES		617	22.99	0.02							1.0
BHL	BZ	27	325	EP		617	20.41	-0.16							1.0
BEYL	SZ	36	301	EP		617	21.93	0.06							1.0
SAIL	SZ	42	250	EP		617	22.74	-0.06							1.0
HWQ	BZ	65	10	EP		617	26.47	-0.03							1.0
HWQ	BN	65	10	ES		617	34.36	0.07							1.0
BEIL	SZ	99	20	EP		617	31.92	0.02							1.0

January 19 2020 Hour: 11:3 16.3 Lat: 33.71N Lon: 35.86E Depth: 12 Agency: REL Local

Magnitudes: 2.4MC REL

Rms: 0.0 secs

WEST BEKAA REGION

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
RCY	SZ	24	186	EP		11 3	20.74	0.04	26						1.0
RCY	SN	24	186	ES		11 3	23.97	0.00							1.0
QRWL	SZ	25	223	EP		11 3	20.68	-0.07							1.0
DQRL	SZ	27	269	EP		11 3	21.12	0.01							1.0
DQRL	SN	27	269	ES		11 3	24.73	0.05							1.0
BHL	BZ	29	318	EP		11 3	21.31	-0.07							1.0
HWQ	BZ	63	7	EP		11 3	26.77	0.04							1.0

January 19 2020 Hour: 11:16 50.7 Lat: 33.85N Lon: 35.34E Depth: 19 Agency: REL Local

Magnitudes: 2.6MC REL

Rms: 0.1 secs

OFFSHORE CENTRAL LEBANON

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
DQRL	SZ	27	127	EP		1116	56.16	0.10	33						1.0
DQRL	SN	27	127	ES		1117	0.02	-0.01							1.0
BHL	BZ	30	79	EP		1116	56.34	-0.09							1.0
QRWL	SZ	47	136	EP		1116	58.77	0.09							1.0
QRWL	SN	47	136	ES		1117	4.53	-0.06							1.0
RCY	SZ	61	130	EP		1117	0.75	-0.01							1.0
HWQ	BZ	74	50	EP		1117	2.48	-0.10							1.0
HWQ	BE	74	50	ES		1117	11.46	0.09							1.0

January 21 2020 Hour: 23:12 33.4 Lat: 33.56N Lon: 35.58E Depth: 0 Agency: REL Local
Magnitudes: 2.6MC REL Rms: 0.0 secs

JEZZINE REGION

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
QRWL	SZ	10	101	EP		2312	34.98	-0.01	36						1.0
QRWL	SN	10	101	ES		2312	36.19	-0.02							1.0
DQRL	SZ	16	358	EP		2312	35.88	0.01							1.0
DQRL	SN	16	358	ES		2312	37.75	0.02							1.0
RCY	SZ	25	107	EP		2312	37.47	0.02							1.0
RCY	SN	25	107	ES		2312	40.51	0.02							1.0
BHL	BZ	38	11	EP		2312	39.49	-0.04							1.0
HWQ	BZ	86	23	EP		2312	47.27	0.01							1.0

January 22 2020 Hour: 23:16 56.1 Lat: 33.72N Lon: 35.42E Depth: 21 Agency: REL Local
Magnitudes: 2.4MC REL Rms: 0.0 secs

OFFSHORE CENTRAL LEBANON

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
DQRL	SZ	15	98	EP		2317	0.35	0.02	27						1.0
DQRL	SN	15	98	ES		2317	3.47	0.01							1.0
BEYL	SZ	18	24	EP		2317	0.55	0.03							1.0
BHL	BZ	30	48	EP		2317	1.87	-0.10							1.0
QRWL	SZ	32	128	EP		2317	2.17	-0.01							1.0
ZAHL	SZ	46	71	EP		2317	4.15	0.02							1.0
RCY	SZ	47	123	EP		2317	4.20	-0.01							1.0
RCY	SN	47	123	ES		2317	10.21	0.01							1.0
HWQ	BZ	79	38	EP		2317	8.82	0.04							1.0

January 22 2020 Hour: 23:30 53.1 Lat: 34.45N Lon: 32.19E Depth: 22 Agency: REL Regional
Magnitudes: 3.7MC REL Rms: 0.1 secs

CYPRUS REGION

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
DQRL	SZ	323	104	EP		2331	37.22	-0.01							1.0
BHL	BZ	325	100	EP		2331	37.55	0.03							1.0
QRWL	SZ	338	106	EP		2331	38.99	-0.10							1.0
QRWL	SN	338	106	ES		2332	13.15	0.06							1.0
HWQ	BZ	346	92	EP		2331	40.22	0.08	104						1.0
HWQ	BN	346	92	ES		2332	14.95	0.03							1.0
ZAHL	SZ	347	100	EP		2331	40.32	0.05							1.0
RCY	SZ	353	106	EP		2331	40.95	-0.10							1.0
BEIL	SZ	367	87	EP		2331	42.71	0.07							1.0
BEIL	SN	367	87	ES		2332	19.17	-0.10							1.0

January 23 2020 Hour: 9:15 36.0 Agency: REL Regional
EMSC OT=09:15:36.0 36.98N 36.78E 7Km M=3.4 TURKEY-SYRIA BORDER REGION

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
BEIL	SZ			EP		916	19.49								
HWQ	BZ			EP		916	23.73								
RCY	SZ			EP		916	35.12								

January 24 2020 Hour: 17:55 14.2 Agency: REL Regional
EMSC OT=17:55:14.2 38.37N 39.22E 15Km M=6.8 EASTERN TURKEY

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
BEIL	SZ			EP		1756	22.77								
HWQ	BZ			EP		1756	29.68								
ZAHL	SZ			EP		1756	31.41								
BHL	BZ			EP		1756	34.57								
BEYL	SZ			EP		1756	37.57								
RCY	SZ			EP		1756	36.90								
DQRL	SZ			EP		1756	34.00								
QRWL	SZ			EP		1756	37.78								
SAIL	SZ			EP		1756	40.37								

January 24 2020 Hour: 18:32 41.2

Agency: REL Regional

EMSC OT=18:32:41.2 38.44N 39.07E 5Km M=4.3 EASTERN TURKEY

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
BEIL	SZ			EP		1833	44.50								
HWQ	BZ			EP		1833	48.05								
ZAHL	SZ			EP		1833	54.78								
BHL	BZ			EP		1833	55.03								
DQRL	SZ			EP		1833	58.75								
RCY	SZ			EP		1833	58.73								
QRWL	SZ			EP		1834	0.64								

January 24 2020 Hour: 18:43 25.7

Agency: REL Regional

EMSC OT=18:43:25.7 38.32N 39.08E 10Km M=4.3 EASTERN TURKEY

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
BEIL	SZ			EP		1844	31.93								
HWQ	BZ			EP		1844	37.11								
ZAHL	SZ			EP		1844	41.14								
BHL	BZ			EP		1844	43.07								
DQRL	SZ			EP		1844	46.55								
RCY	SZ			EP		1844	47.23								
QRWL	SZ			EP		1844	47.59								

January 24 2020 Hour: 19:00 32.0

Agency: REL Regional

EMSC OT=19:00:32.0 38.48N 39.25E 5Km M=3.4 EASTERN TURKEY

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
BEIL	SZ			EP		19 0	20.48								
HWQ	BZ			EP		19 0	25.20								
ZAHL	SZ			EP		19 0	35.23								
BHL	BZ			EP		19 0	31.50								
DQRL	SZ			EP		19 0	35.80								
QRWL	SZ			EP		19 0	37.24								
RCY	SZ			EP		19 0	36.57								

January 24 2020 Hour: 19:03 11.0

Agency: REL Regional

EMSC OT=19:03:11.0 38.27N 38.73E 10Km M=4.6 EASTERN TURKEY

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
BEIL	SZ			EP		19 4	13.17								
HWQ	BZ			EP		19 4	18.16								
ZAHL	SZ			EP		19 4	24.21								
BHL	BZ			EP		19 4	24.64								
DQRL	SZ			EP		19 4	27.85								
RCY	SZ			EP		19 4	28.98								
QRWL	SZ			EP		19 4	28.06								

January 24 2020 Hour: 19:43 42.1

Agency: REL Regional

EMSC OT=19:43:42.1 38.34N 39.02E 5Km M=3.8 EASTERN TURKEY

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
BEIL	SZ			EP		1944	51.22								
HWQ	BZ			EP		1944	55.97								
ZAHL	SZ			EP		1945	1.80								
BHL	BZ			EP		1945	2.75								
RCY	SZ			EP		1945	7.03								

January 24 2020 Hour: 19:49 40.3

Agency: REL Regional

EMSC OT=19:49:40.3 38.35N 39.24E 10Km M=4.3 EASTERN TURKEY

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
BEIL	SZ			EP		1950	48.65								
HWQ	BZ			EP		1950	52.90								
ZAHL	SZ			EP		1950	59.23								
BHL	BZ			EP		1951	0.34								
DQRL	SZ			EP		1951	3.01								
RCY	SZ			EP		1951	3.60								
QRWL	SZ			EP		1951	4.50								

January 24 2020 Hour: 20: 6 2.0 Lat: 34.16N Lon: 36.10E Depth: 0 Agency: REL Local
Magnitudes: 2.9MC REL Rms: 0.1 secs

BAALBECK REGION

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
HWQ	BZ	20	312	EP		20 6	5.07-0.11		51						1.0
HWQ	BN	20	312	ES		20 6	7.52-0.02								1.0
ZAHL	SZ	39	211	EP		20 6	8.26-0.02								1.0
BEIL	SZ	43	10	EP		20 6	8.96 0.00								1.0
BEIL	SN	43	10	ES		20 6	14.20 0.09								1.0
BHL	BZ	50	236	EP		20 6	10.08-0.02								1.0
BHL	BN	50	236	ES		20 6	16.23 0.14								1.0
DQRL	SZ	70	225	EP		20 6	13.32-0.03								1.0
RCY	SZ	78	199	EP		20 6	14.52 0.02								1.0
QRWL	SZ	78	210	EP		20 6	14.56-0.05								1.0

January 24 2020 Hour: 20: 6 56.3 Lat: 34.17N Lon: 36.04E Depth: 0 Agency: REL Local
Magnitudes: 2.4MC REL Rms: 0.1 secs

BAALBECK REGION

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
HWQ	BZ	15	323	EP		20 6	58.67-0.02		26						1.0
ZAHL	SZ	38	203	EP		20 7	2.35 0.02								1.0
BEIL	SZ	43	17	EP		20 7	3.14-0.10								1.0
BEIL	SN	43	17	ES		20 7	8.48 0.08								1.0
BHL	BZ	47	231	EP		20 7	3.80 0.03								1.0
QRWL	SZ	77	206	EP		20 7	8.61-0.03								1.0
RCY	SZ	77	194	EP		20 7	8.77 0.06								1.0
RCY	SN	77	194	ES		20 7	17.89-0.03								1.0

January 24 2020 Hour: 20:18 11.4 Lat: 34.19N Lon: 36.05E Depth: 5 Agency: REL Local
Magnitudes: 2.5MC REL Rms: 0.1 secs

BAALBECK REGION

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
HWQ	BZ	14	318	EP		2018	13.88-0.00		31						1.0
ZAHL	SZ	39	202	EP		2018	17.75-0.10								1.0
BEIL	SZ	42	18	EP		2018	18.22 0.04								1.0
BEIL	SN	42	18	ES		2018	23.18-0.01								1.0
BHL	BZ	48	229	EP		2018	19.25 0.05								1.0
QRWL	SZ	78	206	EP		2018	24.05-0.05								1.0
RCY	SZ	79	194	EP		2018	24.18-0.01								1.0
RCY	SN	79	194	ES		2018	33.73 0.08								1.0

January 24 2020 Hour: 20:18 17.8 Agency: REL Regional
EMSC OT=20:18:17.8 38.18N 38.91E 10Km M=3.9 EASTERN TURKEY

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
BEIL	SZ			EP		2019	26.50								
HWQ	BZ			EP		2019	30.15								
ZAHL	SZ			EP		2019	36.63								
BHL	BZ			EP		2019	37.52								
RCY	SZ			EP		2019	40.46								
QRWL	SZ			EP		2019	41.67								

January 24 2020 Hour: 20:30 2.5 Lat: 34.17N Lon: 36.06E Depth: 0 Agency: REL Local
Magnitudes: 3.2MC REL Rms: 0.0 secs

BAALBECK REGION

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
HWQ	BZ	16	320	EP		2030	4.99-0.03		75						1.0
HWQ	BN	16	320	ES		2030	6.90-0.01								1.0
ZAHL	SZ	38	205	EP		2030	8.58-0.01								1.0
ZAHL	SN	38	205	ES		2030	13.13 0.01								1.0
BEIL	SZ	43	16	EP		2030	9.37-0.03								1.0
BEIL	SN	43	16	ES		2030	14.58 0.04								1.0
BHL	BZ	47	232	EP		2030	10.09-0.01								1.0
DQRL	SZ	68	221	EP		2030	13.59 0.11								1.0

QRWL	SZ	77	207	EP	2030	14.85-0.06	1.0
RCY	SZ	77	195	EP	2030	14.92-0.02	1.0

January 24 2020 Hour: 20:42 13.5

Agency: REL Regional

EMSC OT=20:42:13.5 38.24N 39.17E 10Km M=4.1 EASTERN TURKEY

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
BEIL	SZ			EP		2043	21.64								
HWQ	BZ			EP		2043	26.20								
ZAHL	SZ			EP		2043	31.78								
BHL	BZ			EP		2043	31.78								
RCY	SZ			EP		2043	36.89								

January 24 2020 Hour: 20:45 9.2

Agency: REL Regional

EMSC OT=20:45:09.2 38.52N 39.19E 10Km M=4.5 EASTERN TURKEY

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
BEIL	SZ			EP		2046	16.50								
HWQ	BZ			EP		2046	21.28								
ZAHL	SZ			EP		2046	26.12								
DQRL	SZ			EP		2046	28.18								

January 24 2020 Hour: 22:1 34.3

Agency: REL Regional

EMSC OT=22:01:34.3 38.34N 39.05E 5Km M=4.1 EASTERN TURKEY

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
BEIL	SZ			EP		22 2	44.14								
HWQ	BZ			EP		22 2	48.42								
BHL	BZ			EP		22 2	52.80								
ZAHL	SZ			EP		22 2	54.05								
DQRL	SZ			EP		22 2	56.97								
RCY	SZ			EP		22 2	59.53								

January 24 2020 Hour: 23:30 16.4

Agency: REL Regional

EMSC OT=23:30:16.4 38.34N 38.98E 7Km M=3.9 EASTERN TURKEY

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
BEIL	SZ			EP		2331	27.19								
HWQ	BZ			EP		2331	32.24								
ZAHL	SZ			EP		2331	36.87								
DQRL	SZ			EP		2331	37.11								
RCY	SZ			EP		2331	42.69								

January 25 2020 Hour: 0:27 26.9

Agency: REL Regional

EMSC OT=00:27:26.9 38.53N 39.29E 5Km M=3.7 EASTERN TURKEY

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
BEIL	SZ			EP		028	39.16								
HWQ	BZ			EP		028	44.78								
ZAHL	SZ			EP		028	52.42								
BHL	BZ			EP		028	49.88								
DQRL	SZ			EP		028	55.36								
RCY	SZ			EP		028	54.88								

January 25 2020 Hour: 0:57 19.4

Agency: REL Regional

EMSC OT=00:57:19.4 38.27N 39.10E 10Km M=4.0 EASTERN TURKEY

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
BEIL	SZ			EP		058	27.28								
HWQ	BZ			EP		058	31.60								
ZAHL	SZ			EP		058	37.39								
BHL	BZ			EP		058	38.12								
DQRL	SZ			EP		058	41.63								
RCY	SZ			EP		058	42.32								
QRWL	SZ			EP		058	43.36								

January 25 2020 Hour: 1: 2 38.9 Agency: REL Regional

EMSC OT=01:02:38.9 38.31N 39.35E 10Km M=4.0 EASTERN TURKEY

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
BEIL	SZ			EP		1 3	46.26								
HWQ	BZ			EP		1 3	51.04								
ZAHL	SZ			EP		1 3	56.30								
BHL	BZ			EP		1 3	57.14								
DQRL	SZ			EP		1 4	0.25								
RCY	SZ			EP		1 4	1.68								

January 25 2020 Hour: 1:48 13.2 Agency: REL Regional

EMSC OT=01:48:13.2 38.23N 38.84E 2Km M=3.4 EASTERN TURKEY

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
BEIL	SZ			EP		149	19.54								
HWQ	BZ			EP		149	24.26								
ZAHL	SZ			EP		149	30.22								
BHL	BZ			EP		149	30.55								
DQRL	SZ			EP		149	34.00								
RCY	SZ			EP		149	34.66								

January 25 2020 Hour: 6: 7 34.1 Agency: REL Regional

EMSC OT=06:07:34.1 38.37N 39.06E 5Km M=4.4 EASTERN TURKEY

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
BEIL	SZ			EP		6 8	42.44								
HWQ	BZ			EP		6 8	47.36								
ZAHL	SZ			EP		6 8	53.58								
BHL	BZ			EP		6 8	53.85								
DQRL	SZ			EP		6 8	57.16								
RCY	SZ			EP		6 8	58.19								
QRWL	SZ			EP		6 8	58.73								

January 25 2020 Hour: 8:21 16.9 Agency: REL Regional

EMSC OT=08:21:16.9 38.10N 38.78E 10Km M=3.8 EASTERN TURKEY

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
BEIL	SZ			EP		822	21.18								
FKH	SZ			EP		822	23.88								
HWQ	BZ			EP		822	26.02								
ZAHL	SZ			EP		822	32.05								
BHL	BZ			EP		822	32.18								
DQRL	SZ			EP		822	35.96								
RCY	SZ			EP		822	36.85								
QRWL	SZ			EP		822	37.06								

January 25 2020 Hour: 8:40 4.9 Agency: REL Regional

EMSC OT=08:40:04.9 38.39N 39.27E 5Km M=4.4 EASTERN TURKEY

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
BEIL	SZ			EP		841	16.72								
FKH	SZ			EP		841	18.07								
HWQ	BZ			EP		841	21.02								
ZAHL	SZ			EP		841	25.44								
BHL	BZ			EP		841	25.26								
DQRL	SZ			EP		841	30.68								
RCY	SZ			EP		841	31.21								

January 25 2020 Hour: 9:39 36.3 Agency: REL Regional

EMSC OT=09:39:36.3 38.22N 38.82E 10Km M=3.9 EASTERN TURKEY

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
BEIL	SZ			EP		940	41.99								
FKH	SZ			EP		940	44.68								
HWQ	BZ			EP		940	47.13								
ZAHL	SZ			EP		940	52.90								
BHL	BZ			EP		940	53.47								
DQRL	SZ			EP		940	57.07								

RCY	SZ	EP	940	57.64
QRWL	SZ	EP	940	57.84

January 25 2020 Hour: 10:14 57.4

Agency: REL Regional

EMSC OT=10:14:57.4 38.19N 38.79E 5Km M=4.5 EASTERN TURKEY

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
BEIL	SZ			EP		1016	3.74								
FKH	SZ			EP		1016	6.70								
HWQ	BZ			EP		1016	8.54								
ZAHL	SZ			EP		1016	14.78								
BHL	BZ			EP		1016	15.09								
DQRL	SZ			EP		1016	18.56								
RCY	SZ			EP		1016	19.77								
QRWL	SZ			EP		1016	19.77								

January 25 2020 Hour: 16:30 7.7

Agency: REL Regional

EMSC OT=16:30:07.7 38.35N 39.03E 7Km M=5.1 EASTERN TURKEY

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
BEIL	SZ			EP		1631	18.95								
FKH	SZ			EP		1631	21.30								
HWQ	BZ			EP		1631	23.34								
ZAHL	SZ			EP		1631	29.45								
BHL	BZ			EP		1631	29.95								
DQRL	SZ			EP		1631	33.64								
RCY	SZ			EP		1631	34.75								
QRWL	SZ			EP		1631	34.76								

January 25 2020 Hour: 16:44 1.4

Agency: REL Regional

EMSC OT=16:44:01.4 38.36N 39.09E 4Km M=4.4 EASTERN TURKEY

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
BEIL	SZ			EP		1645	12.02								
FKH	SZ			EP		1645	14.69								
HWQ	BZ			EP		1645	16.10								
ZAHL	SZ			EP		1645	22.24								
BHL	BZ			EP		1645	23.45								
DQRL	SZ			EP		1645	26.58								
RCY	SZ			EP		1645	27.23								
QRWL	SZ			EP		1645	27.48								

January 25 2020 Hour: 19:19 23.4

Agency: REL Distant

EMSC OT=19:19:23.4 30.72S 176.98W 10Km M=5.3 KERMADEC ISLANDS REGION

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
BEIL	SZ			EP		1939	21.43								
HWQ	BZ			EP		1939	21.57								
RCY	SZ			EP		1939	22.46								
BHL	BZ			EP		1939	22.81								
QRWL	SZ			EP		1939	22.69								
DQRL	SZ			EP		1939	23.06								

January 25 2020 Hour: 19:24 51.3

Agency: REL Distant

EMSC OT=19:24:51.3 35.53S 179.55W 10Km M=5.3 EAST OF NORTH ISLANDS, N.Z

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
BEIL	SZ			EP		1944	43.91								
HWQ	BZ			EP		1944	44.27								
ZAHL	SZ			EP		1944	45.07								
BHL	BZ			EP		1944	44.63								
RCY	SZ			EP		1944	44.63								
QRWL	SZ			EP		1944	45.07								

January 25 2020 Hour: 20:51 4.0 Lat: 34.17N Lon: 36.10E Depth: 0 Agency: REL Local
 Magnitudes: 2.6MC REL Rms: 0.0 secs

BAALBECK REGION

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
HWQ	BZ	18	310	EP		2051	6.85	-0.04	36						1.0
HWQ	BN	18	310	ES		2051	9.04	-0.01							1.0
ZAHL	SZ	40	209	EP		2051	10.36	-0.08							1.0
ZAHL	SN	40	209	ES		2051	15.24	0.02							1.0
BEIL	SZ	42	11	EP		2051	10.73	0.03							1.0
BEIL	SN	42	11	ES		2051	15.68	0.01							1.0
BHL	BZ	51	234	EP		2051	12.21	0.08							1.0
DQRL	SZ	71	223	EP		2051	15.48	0.03							1.0
RCY	SZ	79	198	EP		2051	16.65	-0.05							1.0
QRWL	SZ	79	209	EP		2051	16.77	0.01							1.0

January 25 2020 Hour: 21:19 59.9 Agency: REL Distant

EMSC OT=21:19:59.9 35.67S 178.54W 10Km M=5.3 EAST OF NORTH ISLANDS, N.Z

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
RCY	SZ			EP		2139	59.16								
ZAHL	SZ			EP		2139	59.71								
BEIL	SZ			EP		2139	59.39								
HWQ	BZ			EP		2139	59.55								
QRWL	SZ			EP		2139	59.94								
BHL	BZ			EP		2139	59.87								
DQRL	SZ			EP		2140	0.65								

January 26 2020 Hour: 2:22 45.9 Agency: REL Regional

EMSC OT=02:22:45.9 38.25N 38.83E 10Km M=4.5 EASTERN TURKEY

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
BEIL	SZ			EP		223	52.89								
HWQ	BZ			EP		223	56.51								
ZAHL	SZ			EP		224	3.26								
BHL	BZ			EP		224	3.06								
DQRL	SZ			EP		224	7.13								
QRWL	SZ			EP		224	7.89								
RCY	SZ			EP		224	7.57								

January 26 2020 Hour: 2:47 28.7 Agency: REL Regional

EMSC OT=02:47:28.7 38.46N 39.21E 5Km M=3.9 EASTERN TURKEY

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
BEIL	SZ			EP		248	40.43								
HWQ	BZ			EP		248	44.73								
ZAHL	SZ			EP		248	51.39								
BHL	BZ			EP		248	51.40								
DQRL	SZ			EP		248	53.82								
RCY	SZ			EP		248	55.19								

January 26 2020 Hour: 5:0 36.6 Lat: 33.51N Lon: 35.69E Depth: 0 Agency: REL Local
 Magnitudes: 2.3MC REL Rms: 0.0 secs

WEST BEKAA REGION

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
QRWL	SZ	4	344	EP		5 0	37.29	-0.06	24						1.0
QRWL	SN	4	344	ES		5 0	37.89	0.01							1.0
RCY	SZ	13	97	EP		5 0	38.83	0.04							1.0
DQRL	SZ	24	332	EP		5 0	40.60	0.02							1.0
DQRL	SN	24	332	ES		5 0	43.56	0.06							1.0
ZAHL	SZ	42	25	EP		5 0	43.47	0.01							1.0
BHL	BZ	44	355	EP		5 0	43.60	-0.08							1.0

January 26 2020 Hour: 9:43 34.5

Agency: REL Distant

EMSC OT=09:43:34.5 35.72S 179.47W 10Km M=5.2 EAST OF NORTH ISLANDS, N.Z

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
FKH	SZ			EP		10 3	26.21								
RCY	SZ			EP		10 3	26.87								
HWQ	BZ			EP		10 3	27.16								
BHL	BZ			EP		10 3	27.51								
DQRL	SZ			EP		10 3	27.68								

January 26 2020 Hour: 10:12 18.4

Agency: REL Regional

EMSC OT=10:12:18.4 38.34N 39.11E 5Km M=3.9 EASTERN TURKEY

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
BEIL	SZ			EP		1013	28.84								
FKH	SZ			EP		1013	31.63								
HWQ	BZ			EP		1013	34.76								
ZAHL	SZ			EP		1013	40.35								
BHL	BZ			EP		1013	40.19								
DQRL	SZ			EP		1013	45.70								
RCY	SZ			EP		1013	43.92								
QRWL	SZ			EP		1013	44.40								

January 26 2020 Hour: 11:31 33.2

Agency: REL Regional

EMSC OT=11:31:33.2 38.26N 38.73E 5Km M=3.7 EASTERN TURKEY

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
BEIL	SZ			EP		1132	39.78								
FKH	SZ			EP		1132	42.47								
HWQ	BZ			EP		1132	44.65								
ZAHL	SZ			EP		1132	50.65								
BHL	BZ			EP		1132	51.09								
DQRL	SZ			EP		1132	53.88								
RCY	SZ			EP		1132	55.12								

January 27 2020 Hour: 4: 7 19.5

Lat: 34.90N

Lon: 33.15E

Depth:133

Agency: REL

Regional

Magnitudes: 3.2MC REL

Rms: 0.1 secs

CYPRUS REGION

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
HWQ	BZ	265	104	EP		4 7	57.04-0.03		58						1.0
HWQ	BN	265	104	ES		4 8	24.95 0.06								1.0
ZAHL	SZ	277	114	EP		4 7	58.19-0.12								1.0
QRWL	SZ	277	122	EP		4 7	58.32-0.01								1.0
BEIL	SZ	280	97	EP		4 7	58.75 0.09								1.0
BEIL	SN	280	97	ES		4 8	27.61-0.06								1.0
RCY	SZ	292	121	EP		4 8	0.13 0.07								1.0

January 27 2020 Hour: 16:12 0.8

Agency: REL Regional

EMSC OT=16:12:00.8 38.40N 39.10E 5Km M=4.4 EASTERN TURKEY

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
BEIL	SZ			EP		1613	10.74								
FKH	SZ			EP		1613	12.74								
HWQ	BZ			EP		1613	15.04								
ZAHL	SZ			EP		1613	19.73								
BHL	BZ			EP		1613	21.41								
DQRL	SZ			EP		1613	25.48								
RCY	SZ			EP		1613	25.86								
QRWL	SZ			EP		1613	26.56								

January 27 2020 Hour: 22:44 13.7

Agency: REL Regional

EMSC OT=22:44:13.7 38.18N 38.68E 5Km M=3.5 EASTERN TURKEY

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
BEIL	SZ			EP		2245	17.71								
HWQ	BZ			EP		2245	22.49								
ZAHL	SZ			EP		2245	28.31								
BHL	BZ			EP		2245	28.88								

DQRL	SZ	EP	2245	31.95
RCY	SZ	EP	2245	33.45
QRWL	SZ	EP	2245	33.57

January 28 2020 Hour: 15:38 33.7

Agency: REL Regional

EMSC OT=15:38:33.7 35.04N 27.92E 10Km M=5.4 DODECANESE ISLANDS, GREECE

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
DQRL	SZ			EP		1540	7.28								
BHL	BZ			EP		1540	5.36								
QRWL	SZ			EP		1540	9.59								
HWQ	BZ			EP		1540	10.12								
ZAHL	SZ			EP		1540	10.63								
RCY	SZ			EP		1540	11.00								
BEIL	SZ			EP		1540	11.97								
FKH	SZ			EP		1540	15.98								

January 28 2020 Hour: 21:45 0.0

Agency: REL Regional

EMSC OT=21:45:00.0 35.09N 27.92E 10Km M=4.4 DODECANESE ISLANDS, GREECE

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
QRWL	SZ			EP		2146	34.72								
HWQ	BZ			EP		2146	35.85								
ZAHL	SZ			EP		2146	36.29								
RCY	SZ			EP		2146	36.61								
BEIL	SZ			EP		2146	37.40								

January 29 2020 Hour: 2:43 13.1

Agency: REL Regional

EMSC OT=02:43:13.1 35.05N 27.97E 10Km M=3.9 DODECANESE ISLANDS, GREECE

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
QRWL	SZ			EP		244	48.25								
HWQ	BZ			EP		244	49.63								
ZAHL	SZ			EP		244	49.74								
RCY	SZ			EP		244	50.09								
BEIL	SZ			EP		244	51.12								

January 29 2020 Hour: 13:36 59.7

Agency: REL Regional

EMSC OT=13:36:59.7 35.07N 27.81E 10Km M=4.8 DODECANESE ISLANDS, GREECE

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
DQRL	SZ			EP		1338	34.65								
QRWL	SZ			EP		1338	35.24								
HWQ	BZ			EP		1338	37.07								
ZAHL	SZ			EP		1338	37.55								
RCY	SZ			EP		1338	37.83								
BEIL	SZ			EP		1338	38.82								

January 29 2020 Hour: 18:7 31.1

Agency: REL Distant

EMSC OT=18:07:31.1 37.05N 45.07E 10Km M=4.9 NORTHWESTERN IRAN

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
BEIL	SZ			EP		18 9	21.75								
HWQ	BZ			EP		18 9	26.19								
ZAHL	SZ			EP		18 9	30.93								
BHL	BZ			EP		18 9	31.69								
RCY	SZ			EP		18 9	33.18								
DQRL	SZ			EP		18 9	34.55								
QRWL	SZ			EP		18 9	34.79								

January 30 2020 Hour: 1:28 5.3

Agency: REL Regional

EMSC OT=01:28:05.3 35.06N 27.87E 10Km M=5.6 DODECANESE ISLANDS, GREECE

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
DQRL	SZ			EP		129	39.55								
BHL	BZ			EP		129	38.91								
QRWL	SZ			EP		129	41.78								
HWQ	BZ			EP		129	42.29								
ZAHL	SZ			EP		129	42.93								
RCY	SZ			EP		129	43.76								

BEIL SZ EP 129 43.56

January 30 2020 Hour: 11:21 36.5

Agency: REL Regional

EMSC OT=11:21:36.5 35.08N 27.80E 10Km M=5.7 DODECANESE ISLANDS, GREECE

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
DQRL	SZ			EP		1123	11.63								
BHL	BZ			EP		1123	11.31								
QRWL	SZ			EP		1123	13.63								
HWQ	BZ			EP		1123	14.97								
ZAHL	SZ			EP		1123	14.83								
RCY	SZ			EP		1123	15.36								
BEIL	SZ			EP		1123	16.23								
FKH	SZ			EP		1123	20.30								

January 31 2020 Hour: 3:15 27.9

Lat: 34.14N

Lon: 35.24E

Depth: 5

Agency: REL

Local

Magnitudes: 3.3MC REL

Rms: 0.0 secs

OFFSHORE CENTRAL LEBANON

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
BEYL	SZ	38	141	EP		315	34.10-0.01								1.0
BHL	BZ	47	124	EP		315	35.46-0.05		94						1.0
BHL	BN	47	124	ES		315	41.14 0.02								1.0
DQRL	SZ	57	147	EP		315	37.20 0.01								1.0
HWQ	BZ	67	76	EP		315	38.89 0.04								1.0
HWQ	BN	67	76	ES		315	46.90-0.02								1.0
ZAHL	SZ	68	117	EP		315	38.91 0.02								1.0
QRWL	SZ	77	148	EP		315	40.51 0.05								1.0
RCY	SZ	90	142	EP		315	42.47-0.06								1.0
BEIL	SZ	98	63	EP		315	43.80-0.00								1.0

January 31 2020 Hour: 3:41 33.3

Lat: 34.14N

Lon: 35.25E

Depth: 7

Agency: REL

Local

Magnitudes: 3.1MC REL

Rms: 0.0 secs

OFFSHORE CENTRAL LEBANON

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
BEYL	SZ	37	143	EP		341	39.43-0.01								1.0
BHL	BZ	46	125	EP		341	40.76-0.02		64						1.0
BHL	BN	46	125	ES		341	46.30-0.02								1.0
DQRL	SZ	57	148	EP		341	42.52-0.00								1.0
HWQ	BZ	66	76	EP		341	44.00-0.02								1.0
HWQ	BN	66	76	ES		341	51.95-0.00								1.0
ZAHL	SZ	67	118	EP		341	44.21 0.09								1.0
QRWL	SZ	77	149	EP		341	45.77-0.01								1.0
RCY	SZ	90	143	EP		341	47.82-0.01								1.0
BEIL	SZ	97	62	EP		341	48.92-0.01								1.0

January 31 2020 Hour: 4:34 38.1

Agency: REL Regional

EMSC OT=04:34:38.1 35.13N 27.98E 10Km M=4.7 DODECANESE ISLANDS, GREECE

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
HWQ	BZ			EP		436	15.44								
QRWL	SZ			EP		436	14.78								
BEIL	SZ			EP		436	14.95								
ZAHL	SZ			EP		436	16.48								
RCY	SZ			EP		436	16.60								

January 31 2020 Hour: 23:32 50.5

Agency: REL Regional

EMSC OT=23:32:50.5 38.50N 39.30E 6Km M=4.6 EASTERN TURKEY

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
ZAHL	SZ			EP		2334	12.25								
BHL	BZ			EP		2334	13.00								
DQRL	SZ			EP		2334	17.32								
RCY	SZ			EP		2334	17.53								
QRWL	SZ			EP		2334	17.92								

Epicentral Map of Lebanon

JANUARY 2020

