

Republic of Lebanon
National Council for Scientific Research

Provisional Seismological Bulletin

from the

NATIONAL SEISMIC NETWORK

April

2020

Prepared by
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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:

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

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
SAIL	3334.52N	3524.09E	159	SAIDA	Opened Jan 2020
CPTL	3353.47N	3528.60E	32	QRAYTEM	Opened Mar 2020

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*(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.

April 1 2020 Hour: 12:20 1.3 Agency: REL Regional

EMSC OT=12:20:01.3 38.44N 39.13E 8Km M=3.8 EASTERN TURKEY

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
BEIL	SZ			EP		1221	12.02								
HWQ	BZ			EP		1221	16.52								
ZAHL	SZ			EP		1221	20.70								
DQRL	SZ			EP		1221	26.36								
QRWL	SZ			EP		1221	27.73								

April 1 2020 Hour: 14:27 55.3 Lat: 33.35N Lon: 35.91E Depth: 30 Agency: REL Regional

Magnitudes: 2.4MC REL

SYRIA REGION

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
RCY	SZ	18	338	EP		1428	1.05	0.06							1.0
QRWL	SZ	31	317	EP		1428	2.08	-0.02	26						1.0
QRWL	SN	31	317	ES		1428	7.07	-0.05							1.0
DQRL	SZ	51	322	EP		1428	4.59	0.08							1.0
ZAHL	SZ	57	358	EP		1428	5.19	-0.12							1.0
ZAHL	SN	57	358	ES		1428	12.76	0.05							1.0

April 3 2020 Hour: 5:44 25.1 Agency: REL Regional

EMSC OT=05:44:25.1 38.91N 43.53E 13Km M=4.7 EASTERN TURKEY

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
BEIL	SZ			EP		546	13.68								
FKH	SZ			EP		546	13.74								
HWQ	BZ			EP		546	17.66								
ZAHL	SZ			EP		546	22.71								
RCY	SZ			EP		546	26.18								
DQRL	SZ			EP		546	25.85								
QRWL	SZ			EP		546	24.32								

April 3 2020 Hour: 9:11 50.0 Lat: 33.13N Lon: 35.63E Depth: 0 Agency: REL Regional

Magnitudes: 2.6MC REL

DEAD SEA REGION

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
RCY	SZ	45	26	EP		911	57.15	0.01	33						1.0
RCY	SN	45	26	ES		912	2.54	0.08							1.0
QRWL	SZ	46	6	EP		911	57.30	-0.08							1.0
DQRL	SZ	64	355	EP		912	0.10	-0.09							1.0
DQRL	SN	64	355	ES		912	7.85	0.08							1.0
ZAHL	SZ	84	17	EP		912	3.46	0.01							1.0
BHL	BZ	85	2	EP		912	3.64	-0.07							1.0
HWQ	BZ	130	13	EP		912	10.93	-0.02							1.0
BEIL	SZ	164	18	EP		912	15.99	0.02							1.0

April 3 2020 Hour: 18:15 42.5 Lat: 35.97N Lon: 35.52E Depth: 11 Agency: REL Regional

Magnitudes: 3.7MC REL

Earthquake was felt

OFFSHORE SYRIA

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
BEIL	SZ	170	159	EP		1816	8.31	-0.11	134						1.0
BEIL	SN	170	159	ES		1816	27.69	0.08							1.0
HWQ	BZ	192	168	EP		1816	11.16	-0.07							1.0
HWQ	BN	192	168	ES		1816	32.44	-0.06							1.0
BHL	BZ	230	177	EP		1816	15.94	0.02							1.0
CPTL	SZ	231	181	EP		1816	15.92	-0.04							1.0
BEYL	SZ	233	181	EP		1816	16.26	0.03							1.0
ZAHL	SZ	237	172	EP		1816	16.96	0.14							1.0
ZAHL	SN	237	172	ES		1816	42.21	-0.02							1.0
DQRL	SZ	251	179	EP		1816	18.54	-0.07							1.0
QRWL	SZ	269	177	EP		1816	20.87	0.05							1.0
RCY	SZ	276	174	EP		1816	21.77	0.05							1.0

**April 3 2020 Hour: 22:47 35.5 Lat: 35.93N Lon: 35.51E Depth: 11 Agency: REL Regional
Magnitudes: 3.2MC REL
OFFSHORE SYRIA**

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
BEIL	SZ	166	158	EP		2248	1.10	0.04	67						1.0
BEIL	SN	166	158	ES		2248	19.94	0.00							1.0
HWQ	BZ	187	168	EP		2248	3.70	-0.11							1.0
HWQ	BN	187	168	ES		2248	24.70	-0.03							1.0
BHL	BZ	225	177	EP		2248	8.49	0.03							1.0
ZAHL	SZ	232	171	EP		2248	9.49	0.10							1.0
ZAHL	SN	232	171	ES		2248	34.45	0.02							1.0
QRWL	SZ	265	176	EP		2248	13.36	-0.00							1.0
RCY	SZ	271	174	EP		2248	14.20	-0.07							1.0

**April 4 2020 Hour: 0:30 11.5 Lat: 33.08N Lon: 35.58E Depth: 0 Agency: REL Regional
Magnitudes: 2.6MC REL
DEAD SEA REGION**

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
RCY	SZ	52	27	EP		030	19.78	-0.14	35						1.0
RCY	SN	52	27	ES		030	26.12	0.00							1.0
QRWL	SZ	53	10	EP		030	20.06	0.01							1.0
DQRL	SZ	70	359	EP		030	22.71	-0.04							1.0
DQRL	SN	70	359	ES		030	31.06	0.01							1.0
ZAHL	SZ	91	18	EP		030	26.22	0.03							1.0
BHL	BZ	92	4	EP		030	26.26	-0.08							1.0
HWQ	BZ	137	14	EP		030	33.70	0.06							1.0
BEIL	SZ	172	19	EP		030	38.79	0.14							1.0

**April 4 2020 Hour: 0:47 10.4 Lat: 33.03N Lon: 35.60E Depth: 0 Agency: REL Regional
Magnitudes: 2.9MC REL
DEAD SEA REGION**

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
RCY	SZ	57	23	EP		047	19.57	0.04	49						1.0
RCY	SN	57	23	ES		047	26.27	-0.04							1.0
QRWL	SZ	59	7	EP		047	19.82	0.00							1.0
DQRL	SZ	76	358	EP		047	22.53	-0.04							1.0
DQRL	SN	76	358	ES		047	31.63	0.04							1.0
ZAHL	SZ	96	16	EP		047	25.94	0.05							1.0
BHL	BZ	98	3	EP		047	26.07	-0.06							1.0
HWQ	BZ	143	13	EP		047	33.31	0.02							1.0
BEIL	SZ	177	18	EP		047	38.26	-0.00							1.0

**April 4 2020 Hour: 1:12 29.7 Agency: REL Regional
EMSC OT=01:12:29.7 37.36N 36.24E 5Km M=3.5 CENTRAL TURKEY**

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
BEIL	SZ			EP			113	15.06							
HWQ	BZ			EP			113	19.16							
ZAHL	SZ			EP			113	22.70							
BHL	BZ			EP			113	24.67							
DQRL	SZ			EP			113	28.31							
QRWL	SZ			EP			113	25.67							
RCY	SZ			EP			113	31.99							

**April 4 2020 Hour: 3:41 54.6 Lat: 35.97N Lon: 35.51E Depth: 9 Agency: REL Regional
Magnitudes: 3.4MC REL
Offshore Syria**

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
BEIL	SZ	169	159	EP			342	20.75	-0.00	94					1.0
BEIL	SE	169	159	ES			342	40.16	0.02						1.0
HWQ	BZ	191	168	EP			342	23.46	-0.08						1.0
ZAHL	SZ	236	172	EP			342	29.17	0.04						1.0
ZAHL	SN	236	172	ES			342	54.70	-0.02						1.0
DQRL	SZ	251	179	EP			342	30.89	-0.02						1.0

QRWL SZ 269 177 EP	342 33.14 0.02	1.0
RCY SZ 275 174 EP	342 34.07 0.05	1.0

April 4 2020 Hour: 18:44 35.1 Lat: 34.86N Lon: 32.58E Depth: 44 Agency: REL Regional Magnitudes: 3.4MC REL

OFFSHORE SYRIA

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
BHL	BZ	302	110	EP		1845	15.52	0.04							1.0
DQRL	SZ	303	114	EP		1845	15.66	-0.03							1.0
HWQ	BZ	315	101	EP		1845	17.20	0.05							1.0
HWQ	BN	315	101	ES		1845	48.29	0.01							1.0
QRWL	SZ	320	116	EP		1845	17.80	0.04							1.0
ZAHL	SZ	323	109	EP		1845	18.06	-0.09							1.0
BEIL	SZ	332	95	EP		1845	19.18	0.09	72						1.0
BEIL	SN	332	95	ES		1845	51.59	-0.07							1.0
RCY	SZ	336	116	EP		1845	19.55	-0.11							1.0
RCY	SN	336	116	ES		1845	52.72	0.06							1.0

April 5 2020 Hour: 5:4 7.0 EMSC OT=05:04:07.0 28.96N 34.85E 19Km M=4.3 EGYPT

Agency: REL Regional

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
RCY	SZ			EP		5	5	17.25							
QRWL	SZ			EP		5	5	23.11							
DQRL	SZ			EP		5	5	25.31							
ZAHL	SZ			EP		5	5	29.22							
BHL	BZ			EP		5	5	28.98							
HWQ	BZ			EP		5	5	35.71							
BEIL	SZ			EP		5	5	40.37							

April 5 2020 Hour: 18:28 41.3 Lat: 33.10N Lon: 35.61E Depth: 3 Agency: REL Regional Magnitudes: 2.7MC REL

DEAD SEA REGION

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
RCY	SZ	48	25	EP		1828	49.13	-0.00	40						1.0
RCY	SN	48	25	ES		1828	54.92	-0.02							1.0
QRWL	SZ	50	7	EP		1828	49.31	-0.04							1.0
DQRL	SZ	67	357	EP		1828	52.08	-0.04							1.0
DQRL	SN	67	357	ES		1829	0.15	0.01							1.0
ZAHL	SZ	88	17	EP		1828	55.53	0.10							1.0
ZAHL	SN	88	17	ES		1829	5.91	0.01							1.0
BHL	BZ	89	2	EP		1828	55.67	0.01							1.0
HWQ	BZ	134	13	EP		1829	2.81	0.12							1.0
BEIL	SZ	168	18	EP		1829	7.54	-0.13							1.0

April 5 2020 Hour: 18:37 11.7

Agency: REL Distant

EMSC OT=18:37:11.7 1.44N 126.41E 50Km M=5.9 MOLUCCA SEA

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
BHL	BZ			EP		1850	3.53								
HWQ	BZ			EP		1850	3.43								

April 8 2020 Hour: 10:23 1.8

Agency: REL Distant

EMSC OT=10:02:31.8 15.70S 177.55W 418Km M=5.4 FIJI REGION

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
BHL	BZ			EP		1021	21.27								
HWQ	BZ			EP		1021	20.01								

April 9 2020 Hour: 18:37 9.7

Agency: REL Regional

EMSC OT=18:37:09.7 35.07N 27.83E 10Km M=3.8 DODECANESE ISLANDS.T TGEG

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
DQRL	SZ			EP		1838	45.28								
QRWL	SZ			EP		1838	45.64								
HWQ	BZ			EP		1838	47.79								
ZAHL	SZ			EP		1838	48.23								
RCY	SZ			EP		1838	49.52								

BEIL SZ EP 1838 48.51

April 10 2020 Hour: 1:34 5.2 Agency: REL Regional
EMSC OT=01:34:05.2 35.05N 27.91E 2Km M=3.4 DODECANESE ISLANDS.I TGEG

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
QRWL	SZ			EP		135	43.70								
HWQ	BZ			EP		135	44.59								
ZAHL	SZ			EP		135	44.87								
RCY	SZ			EP		135	45.60								
BEIL	SZ			EP		135	46.26								

April 10 2020 Hour: 16:31 4.0 Lat: 30.67N Lon: 35.46E Depth: 0 Agency: REL Regional
Magnitudes: 4.1MC REL
JORDAN REGION

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
RCY	SZ	316	6	EP		1631	49.37	0.00	201						1.0
RCY	SN	316	6	ES		1632	23.07	0.10							1.0
QRWL	SZ	320	4	EP		1631	49.77	-0.09							1.0
DQRL	SZ	337	2	EP		1631	51.95	-0.04							1.0
ZAHL	SZ	356	6	EP		1631	54.40	0.03							1.0
ZAHL	SN	356	6	ES		1632	31.82	0.15							1.0
BHL	BZ	360	3	EP		1631	54.73	-0.03							1.0
HWQ	BZ	403	6	EP		1632	0.14	0.01							1.0
HWQ	BN	403	6	ES		1632	41.77	0.07							1.0
BEIL	SZ	435	9	EP		1632	3.95	0.00							1.0

April 10 2020 Hour: 16:44 56.4 Agency: REL Distant
EMSC OT=16:44:56.4 20.45N 122.12E 166Km M=5.9 BATAN ISL REGION.RJ KNRRP GU

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
HWQ	BZ			EP		1656	24.10								
BHL	BZ			EP		1656	25.20								

April 11 2020 Hour: 10:22 55.8 Agency: REL Regional
EMSC OT=10:22:55.8 35.22N 26.18E 21Km M=5.0 CRETE, GREECE

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
DQRL	SZ			EP		1024	44.59								
BHL	BZ			EP		1024	45.92								
QRWL	SZ			EP		1024	46.42								
HWQ	BZ			EP		1024	47.34								
ZAHL	SZ			EP		1024	47.78								
RCY	SZ			EP		1024	48.33								
BEIL	SZ			EP		1024	49.88								
FKH	SZ			EP		1024	53.65								

April 12 2020 Hour: 2:23 13.4 Agency: REL Distant
EMSC OT=02:23:13.4 38.46N 44.47E 10Km M=4.5 TURKEY-IRAN BORDER.TGI KQP

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
BEIL	SZ			EP		225	6.37								
HWQ	BZ			EP		225	11.11								
ZAHL	SZ			EP		225	15.70								
BHL	BZ			EP		225	18.75								
RCY	SZ			EP		225	18.87								
DQRL	SZ			EP		225	22.10								
QRWL	SZ			EP		225	20.39								

April 12 2020 Hour: 3:25 44.8 Lat: 33.74N Lon: 35.83E Depth: 11 Agency: REL Local
Magnitudes: 2.4MC REL
ZAHLE REGION

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
ZAHL	SZ	13	21	EP		325	47.85	0.07	25						1.0
ZAHL	SN	13	21	ES		325	49.96	-0.02							1.0
BHL	BZ	24	317	EP		325	49.13	-0.08							1.0
DQRL	SZ	25	260	EP		325	49.36	0.06							1.0
DQRL	SN	25	260	ES		325	52.62	-0.00							1.0

QRWL	SZ	26	213	EP	325	49.49	0.03	1.0
RCY	SZ	28	180	EP	325	49.66	-0.06	1.0
HWQ	BZ	60	10	EP	325	54.70	0.01	1.0
BEIL	SZ	94	20	EP	325	59.77	0.00	1.0

April 12 2020 Hour: 6:38 5.1 Agency: REL Regional
EMSC OT=06:38:05.1 39.31N 40.87E 7Km M=4.2 EASTERN TURKEY

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
BEIL	SZ			EP		639	36.53								
FKH	SZ			EP		639	38.42								
HWQ	BZ			EP		639	41.40								
ZAHL	SZ			EP		639	47.52								
BHL	BZ			EP		639	47.69								
DQRL	SZ			EP		639	51.01								
RCY	SZ			EP		639	52.17								
QRWL	SZ			EP		639	52.02								

April 13 2020 Hour: 1:42 52.4 Agency: REL Distant
EMSC OT=01:42:52.4 48.26N 154.34E 52Km M=5.2 KURIL ISLANDS

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
HWQ	BZ			EP		155	2.19								
BHL	BZ			EP		155	3.38								

April 13 2020 Hour: 2:7 15.2 Lat: 33.51N Lon: 35.69E Depth: 0 Agency: REL Local Rms: 0.0 secs
Magnitudes: 2.3MC REL WEST BEKAA REGION

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
QRWL	SZ	4	355	EP		2	7	15.84	-0.05	23					1.0
QRWL	SN	4	355	ES		2	7	16.46	0.02						1.0
RCY	SZ	14	96	EP		2	7	17.41	-0.01						1.0
RCY	SN	14	96	ES		2	7	19.12	0.01						1.0
DQRL	SZ	24	334	EP		2	7	19.15	0.06						1.0
DQRL	SN	24	334	ES		2	7	21.98	-0.02						1.0
ZAHL	SZ	43	25	EP		2	7	22.08	0.00						1.0
BHL	BZ	44	356	EP		2	7	22.23	-0.02						1.0

April 13 2020 Hour: 14:23 41.8 Lat: 34.23N Lon: 36.44E Depth: 0 Agency: REL Local Rms: 0.0 secs
Magnitudes: 3.1MC REL BAALBECK REGION

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
FKH	SZ	3	293	EP		1423	42.38	0.00							1.0
BEIL	SZ	42	325	EP		1423	48.55	0.03	71						1.0
HWQ	BZ	46	276	EP		1423	49.14	-0.10							1.0
HWQ	BN	46	276	ES		1423	54.78	0.03							1.0
ZAHL	SZ	66	231	EP		1423	52.46	-0.02							1.0
BHL	BZ	82	244	EP		1423	54.98	0.04							1.0
BHL	BN	82	244	ES		1424	4.68	-0.00							1.0
QRWL	SZ	104	223	EP		1423	58.53	0.02							1.0

April 13 2020 Hour: 21:53 31.2 Lat: 34.13N Lon: 35.15E Depth: 12 Agency: REL Local Rms: 0.1 secs
Magnitudes: 3.3MC REL OFFSHORE CENTRAL LEBANON

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
CPTL	SZ	40	131	EP		2153	38.00	0.09							1.0
CPTL	SN	40	131	ES		2153	42.93	0.03							1.0
BEYL	SZ	43	131	EP		2153	38.22	-0.08							1.0
BHL	BZ	53	118	EP		2153	39.88	-0.06	92						1.0
BHL	BN	53	118	ES		2153	46.45	0.00							1.0
DQRL	SZ	61	140	EP		2153	41.15	-0.03							1.0
ZAHL	SZ	74	113	EP		2153	43.09	-0.09							1.0
HWQ	BZ	76	77	EP		2153	43.40	0.05							1.0
HWQ	BN	76	77	ES		2153	52.37	-0.01							1.0
QRWL	SZ	81	142	EP		2153	44.13	-0.01							1.0
RCY	SZ	94	137	EP		2153	46.24	0.08							1.0

RCY	SN	94	137	ES	2153	57.25-0.01	1.0
BEIL	SZ	106	64	EP	2153	47.76-0.04	1.0
FKH	SZ	117	83	EP	2153	49.55 0.08	1.0

April 13 2020 Hour: 23:37 38.1 Lat: 33.79N Lon: 32.15E Depth: 14 Agency: REL Regional Magnitudes: 3.6MC REL

EASTERN MEDITERRANEAN SEA

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
DQRL	SZ	317	91	EP		2338	22.08	0.04							1.0
BHL	BZ	324	87	EP		2338	22.95-0.03								1.0
QRWL	SZ	328	94	EP		2338	23.48-0.00								1.0
QRWL	SN	328	94	ES		2338	57.10	0.02							1.0
RCY	SZ	343	94	EP		2338	25.28-0.09								1.0
ZAHL	SZ	346	88	EP		2338	25.58-0.07								1.0
ZAHL	SN	346	88	ES		2339	0.93	0.08							1.0
HWQ	BZ	354	80	EP		2338	26.77	0.03							1.0
HWQ	BN	354	80	ES		2339	2.70-0.04								1.0
BEIL	SZ	381	76	EP		2338	30.03	0.11	84						1.0
BEIL	SN	381	76	ES		2339	8.22-0.06								1.0

April 14 2020 Hour: 1: 6 44.0

EMSC OT=01:06:44.0 30.49S 176.24W 10Km M=6.0 KERMADEC ISLANDS'TGI KQP

Agency: REL Distant

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
BHL	BZ			EP			126	41.87							
HWQ	BZ			EP			126	40.81							

April 14 2020 Hour: 22:37 58.6 Lat: 35.75N Lon: 35.44E Depth: 3 Agency: REL Regional Magnitudes: 4.2MC REL

OFFSHORE SYRIA

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
BEIL	SZ	150	153	EP		2238	22.38	0.03	264						1.0
BEIL	SN	150	153	ES		2238	39.91-0.04								1.0
HWQ	BZ	170	164	EP		2238	25.21-0.04								1.0
HWQ	BN	170	164	ES		2238	45.05	0.05							1.0
FKH	SZ	189	152	EP		2238	27.89	0.01							1.0
BHL	BZ	206	175	EP		2238	29.88-0.06								1.0
BHL	BN	206	175	ES		2238	53.15-0.01								1.0
BEYL	SZ	208	179	EP		2238	30.17-0.01								1.0
ZAHL	SZ	214	169	EP		2238	30.98	0.01							1.0
DQRL	SZ	227	177	EP		2238	32.58-0.01								1.0
QRWL	SZ	245	175	EP		2238	34.88	0.03							1.0
RCY	SZ	253	172	EP		2238	35.85	0.05							1.0

April 14 2020 Hour: 22:47 54.1 Lat: 35.88N Lon: 35.45E Depth: 4 Agency: REL Regional Magnitudes: 3.8MC REL

OFFSHORE SYRIA

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
BEIL	SZ	163	156	EP		2248	19.59-0.08	161							1.0
BEIL	SN	163	156	ES		2248	38.64	0.04							1.0
HWQ	BZ	184	166	EP		2248	22.42-0.15								1.0
HWQ	BN	184	166	ES		2248	43.66	0.01							1.0
FKH	SZ	202	154	EP		2248	24.93	0.12							1.0
FKH	SN	202	154	ES		2248	47.49-0.05								1.0
BHL	BZ	220	175	EP		2248	27.14	0.04							1.0
BEYL	SZ	223	179	EP		2248	27.35-0.00								1.0
ZAHL	SZ	228	170	EP		2248	28.22	0.13							1.0
DQRL	SZ	242	177	EP		2248	29.77	0.01							1.0
QRWL	SZ	260	175	EP		2248	31.93-0.07								1.0
RCY	SZ	267	172	EP		2248	32.94-0.00								1.0

April 14 2020 Hour: 23:41 0.5 Lat: 35.96N Lon: 35.64E Depth: 8 Agency: REL Regional
Magnitudes: 3.3MC REL
OFFSHORE SYRIA

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
BEIL	SZ	165	162	EP		2341	26.23	0.12	72						1.0
BEIL	SN	165	162	ES		2341	45.03	-0.06							1.0
HWQ	BZ	189	171	EP		2341	28.68	-0.53							1.0
HWQ	BN	189	171	ES		2341	50.43	-0.05							1.0
FKH	SZ	203	160	EP		2341	30.96	-0.01							1.0
FKH	SN	203	160	ES		2341	53.66	0.12							1.0
BHL	BZ	229	180	EP		2341	34.13	0.05							1.0
ZAHL	SZ	235	174	EP		2341	35.04	0.16							1.0
DQRL	SZ	251	181	EP		2341	36.95	0.13							1.0
RCY	SZ	274	176	EP		2341	39.89	0.08							1.0

April 15 2020 Hour: 0:52 0.8 Lat: 35.88N Lon: 35.61E Depth: 15 Agency: REL Regional
Magnitudes: 3.6MC REL
OFFSHORE SYRIA

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
BEIL	SZ	157	160	EP		052	24.92	0.02	115						1.0
BEIL	SN	157	160	ES		052	42.71	0.01							1.0
HWQ	BZ	180	170	EP		052	27.73	-0.07							1.0
HWQ	BN	180	170	ES		052	47.75	-0.01							1.0
BHL	BZ	219	179	EP		052	32.61	-0.01							1.0
ZAHL	SZ	225	174	EP		052	33.52	0.07							1.0
DQRL	SZ	241	181	EP		052	35.40	0.05							1.0
RCY	SZ	265	175	EP		052	38.30	-0.07							1.0

April 15 2020 Hour: 1:40 58.3 Lat: 33.62N Lon: 35.76E Depth: 16 Agency: REL Local
Magnitudes: 2.3MC REL
WEST BEKAA REGION

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
QRWL	SZ	11	225	EP		141	1.55	0.03	22						1.0
QRWL	SN	11	225	ES		141	3.89	-0.04							1.0
RCY	SZ	15	153	EP		141	1.95	-0.01							1.0
DQRL	SZ	21	299	EP		141	2.64	0.07							1.0
DQRL	SN	21	299	ES		141	5.76	0.01							1.0
ZAHL	SZ	29	23	EP		141	3.76	0.06							1.0
BHL	BZ	34	342	EP		141	4.16	-0.13							1.0

April 15 2020 Hour: 2:35 35.8 Lat: 35.95N Lon: 35.54E Depth: 10 Agency: REL Regional
Magnitudes: 3.7MC REL
OFFSHORE SYRIA

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
BEIL	SZ	167	159	EP		236	1.50	0.01	134						1.0
BEIL	SN	167	159	ES		236	20.58	0.04							1.0
HWQ	BZ	189	169	EP		236	4.19	-0.13							1.0
HWQ	BN	189	169	ES		236	25.42	-0.04							1.0
BHL	BZ	227	177	EP		236	9.05	0.02							1.0
ZAHL	SZ	234	172	EP		236	9.94	0.02							1.0
DQRL	SZ	249	179	EP		236	11.70	-0.03							1.0
QRWL	SZ	267	177	EP		236	13.97	0.04							1.0
RCY	SZ	273	174	EP		236	14.89	0.07							1.0

April 15 2020 Hour: 3:38 2.4 Lat: 35.95N Lon: 35.46E Depth: 9 Agency: REL Regional
Magnitudes: 3.5MC REL
OFFSHORE SYRIA

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
BEIL	SZ	169	157	EP		338	28.65	0.04	106						1.0
BEIL	SN	169	157	ES		338	48.02	0.03							1.0
HWQ	BZ	190	166	EP		338	31.09	-0.20							1.0
HWQ	BN	190	166	ES		338	52.62	-0.03							1.0
BHL	BZ	227	175	EP		338	35.85	-0.00							1.0

ZAHL	SZ	235	170	EP	338	36.96	0.13								1.0
DQRL	SZ	249	178	EP	338	38.55	0.03								1.0
QRWL	SZ	267	176	EP	338	40.78	0.02								1.0
RCY	SZ	274	173	EP	338	41.68	-0.01								1.0

April 15 2020 Hour: 7:40 6.4 Lat: 35.97N Lon: 35.46E Depth: 31 Agency: REL Regional Magnitudes: 3.5MC REL

**Earthquake was felt
OFFSHORE SYRIA**

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
BEIL	SZ	172	157	EP		740	31.10	0.07	98						1.0
BEIL	SN	172	157	ES		740	49.17	-0.07							1.0
HWQ	BZ	193	167	EP		740	33.79	0.06							1.0
HWQ	BN	193	167	ES		740	53.93	-0.01							1.0
FKH	SZ	210	155	EP		740	35.87	0.00							1.0
BHL	BZ	230	176	EP		740	38.30	-0.01							1.0
CPTL	SZ	231	180	EP		740	38.25	-0.06							1.0
BEYL	SZ	233	179	EP		740	38.59	0.01							1.0
ZAHL	SZ	238	170	EP		740	39.32	0.04							1.0
DQRL	SZ	252	178	EP		740	40.96	-0.02							1.0
QRWL	SZ	270	176	EP		740	43.16	-0.06							1.0
RCY	SZ	277	173	EP		740	44.13	-0.02							1.0
RCY	SN	277	173	ES		741	12.15	0.09							1.0

April 15 2020 Hour: 8:18 38.9 Lat: 35.87N Lon: 35.38E Depth: 12 Agency: REL Regional Magnitudes: 3.3MC REL

**Earthquake was felt
OFFSHORE SYRIA**

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
BEIL	SZ	164	153	EP		819	4.27	0.10	80						1.0
BEIL	SN	164	153	ES		819	22.84	-0.01							1.0
HWQ	BZ	184	163	EP		819	6.39	-0.24							1.0
HWQ	BN	184	163	ES		819	27.23	0.09							1.0
FKH	SZ	203	152	EP		819	8.99	-0.05							1.0
BHL	BZ	219	173	EP		819	11.05	0.03							1.0
BHL	BN	219	173	ES		819	34.70	-0.08							1.0
ZAHL	SZ	228	168	EP		819	12.13	0.04							1.0
DQRL	SZ	240	176	EP		819	13.69	0.04							1.0
QRWL	SZ	259	174	EP		819	16.01	0.08							1.0

April 15 2020 Hour: 8:34 37.3 Lat: 35.91N Lon: 35.47E Depth: 9 Agency: REL Regional Magnitudes: 3.5MC REL

OFFSHORE SYRIA

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
BEIL	SZ	165	157	EP		835	2.84	-0.04	97						1.0
BEIL	SN	165	157	ES		835	21.83	0.02							1.0
HWQ	BZ	186	166	EP		835	5.61	-0.01							1.0
HWQ	BN	186	166	ES		835	26.56	-0.02							1.0
FKH	SZ	204	155	EP		835	7.82	0.02							1.0
BHL	BZ	223	176	EP		835	10.19	-0.01							1.0
ZAHL	SZ	231	170	EP		835	11.18	0.01							1.0
DQRL	SZ	245	178	EP		835	12.93	0.06							1.0
QRWL	SZ	263	176	EP		835	15.05	-0.06							1.0
RCY	SZ	270	173	EP		835	16.05	0.02							1.0

April 15 2020 Hour: 9:8 42.7 Lat: 36.03N Lon: 35.41E Depth: 34 Agency: REL Regional Magnitudes: 3.9MC REL

OFFSHORE SYRIA

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
BEIL	SZ	180	157	EP		9	9	8.09	-0.04	166					1.0
BEIL	SN	180	157	ES		9	9	26.83	-0.09						1.0
HWQ	BZ	201	166	EP		9	9	10.73	-0.04						1.0
HWQ	BN	201	166	ES		9	9	31.62	0.09						1.0
FKH	SZ	218	155	EP		9	9	13.09	0.12						1.0

BHL	BZ	237	174	EP	9	9	15.20	-0.08	1.0
ZAHL	SZ	245	170	EP	9	9	16.35	0.06	1.0
DQRL	SZ	258	177	EP	9	9	17.98	0.05	1.0
QRWL	SZ	277	175	EP	9	9	20.17	-0.02	1.0
RCY	SZ	284	172	EP	9	9	21.09	-0.05	1.0

April 15 2020 Hour: 9:14 49.1 Lat: 35.91N Lon: 35.52E Depth: 10 Agency: REL Regional Magnitudes: 3.5MC REL

OFFSHORE SYRIA

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
BEIL	SZ	163	158	EP		915	14.30	-0.02	99						1.0
BEIL	SN	163	158	ES		915	32.97	0.01							1.0
HWQ	BZ	185	168	EP		915	17.00	-0.14							1.0
HWQ	BN	185	168	ES		915	37.86	-0.01							1.0
FKH	SZ	202	156	EP		915	19.27	0.06							1.0
BHL	BZ	223	177	EP		915	21.77	-0.03							1.0
ZAHL	SZ	230	171	EP		915	22.80	0.08							1.0
DQRL	SZ	244	179	EP		915	24.62	0.13							1.0
QRWL	SZ	262	177	EP		915	26.65	-0.06							1.0
RCY	SZ	269	174	EP		915	27.58	-0.03							1.0

April 15 2020 Hour: 11:34 33.5 Lat: 35.90N Lon: 35.50E Depth: 11 Agency: REL Regional Magnitudes: 3.7MC REL

OFFSHORE SYRIA

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
BEIL	SZ	163	157	EP		1134	58.68	-0.03	144						1.0
BEIL	SN	163	157	ES		1135	17.35	0.02							1.0
HWQ	BZ	185	167	EP		1135	1.36	-0.12							1.0
HWQ	BN	185	167	ES		1135	22.13	-0.02							1.0
FKH	SZ	202	155	EP		1135	3.63	0.05							1.0
ZAHL	SZ	230	171	EP		1135	7.18	0.14							1.0
DQRL	SZ	244	178	EP		1135	8.86	0.07							1.0
QRWL	SZ	262	176	EP		1135	10.98	-0.03							1.0
RCY	SZ	269	173	EP		1135	11.84	-0.08							1.0

April 15 2020 Hour: 14:11 54.0 Lat: 36.07N Lon: 35.32E Depth: 34 Agency: REL Regional Magnitudes: 4.0MC REL

OFFSHORE SYRIA

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
BEIL	SZ	186	155	EP		1412	20.21	-0.05	199						1.0
BEIL	SN	186	155	ES		1412	39.58	-0.08							1.0
HWQ	BZ	206	164	EP		1412	22.73	-0.06							1.0
HWQ	BN	206	164	ES		1412	44.16	0.08							1.0
FKH	SZ	225	154	EP		1412	25.26	0.15							1.0
BHL	BZ	242	173	EP		1412	27.11	-0.06							1.0
ZAHL	SZ	250	168	EP		1412	28.32	0.07							1.0
DQRL	SZ	263	175	EP		1412	29.79	0.00							1.0
QRWL	SZ	281	173	EP		1412	32.17	0.10							1.0
RCY	SZ	289	170	EP		1412	32.92	-0.15							1.0

April 15 2020 Hour: 17: 8 51.2 Lat: 36.04N Lon: 35.36E Depth: 33 Agency: REL Regional Magnitudes: 3.6MC REL

OFFSHORE SYRIA

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
BEIL	SZ	183	155	EP		17	9	16.95	-0.09	120					1.0
BEIL	SN	183	155	ES		17	9	36.13	-0.02						1.0
HWQ	BZ	203	164	EP		17	9	19.60	-0.02						1.0
HWQ	BN	203	164	ES		17	9	40.65	0.02						1.0
FKH	SZ	222	154	EP		17	9	21.99	0.10						1.0
BHL	BZ	239	173	EP		17	9	24.05	0.01						1.0
ZAHL	SZ	247	169	EP		17	9	25.15	0.05						1.0
DQRL	SZ	260	176	EP		17	9	26.68	0.01						1.0
QRWL	SZ	279	174	EP		17	9	28.90	-0.05						1.0

April 15 2020 Hour: 17:43 7.3 Lat: 35.88N Lon: 35.43E Depth: 12 Agency: REL Regional
Magnitudes: 3.8MC REL
OFFSHORE SYRIA

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
BEIL	SZ	163	155	EP		1743	32.52	0.08	151						1.0
BEIL	SN	163	155	ES		1743	51.02	0.01							1.0
HWQ	BZ	184	165	EP		1743	34.75	-0.27							1.0
HWQ	BN	184	165	ES		1743	55.50	-0.00							1.0
FKH	SZ	202	154	EP		1743	37.33	0.03							1.0
BHL	BZ	220	175	EP		1743	39.55	0.03							1.0
ZAHL	SZ	228	169	EP		1743	40.61	0.08							1.0
DQRL	SZ	241	177	EP		1743	42.22	0.05							1.0
QRWL	SZ	260	175	EP		1743	44.42	-0.00							1.0

April 15 2020 Hour: 22:37 24.3 Lat: 33.64N Lon: 35.61E Depth: 4 Agency: REL Local
Magnitudes: 2.6MC REL
CHOUF REGION

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
DQRL	SZ	8	336	EP		2237	25.89	0.01	33						1.0
DQRL	SN	8	336	ES		2237	27.04	0.00							1.0
QRWL	SZ	12	145	EP		2237	26.38	-0.05							1.0
QRWL	SN	12	145	ES		2237	28.02	0.02							1.0
RCY	SZ	26	126	EP		2237	28.71	0.05							1.0
RCY	SN	26	126	ES		2237	31.86	-0.02							1.0
BHL	BZ	30	8	EP		2237	29.21	-0.00							1.0
BHL	BN	30	8	ES		2237	32.83	-0.01							1.0
ZAHL	SZ	36	46	EP		2237	30.13	0.01							1.0

April 16 2020 Hour: 6:4 9.9 Lat: 34.74N Lon: 34.59E Depth: 34 Agency: REL Local
Magnitudes: 2.9MC REL
OFFSHORE NORTH LEBANON

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
HWQ	BZ	134	112	EP		6	4	29.62	-0.07						1.0
HWQ	BN	134	112	ES		6	4	44.44	0.07						1.0
BEIL	SZ	148	98	EP		6	4	31.30	0.04	46					1.0
BEIL	SN	148	98	ES		6	4	47.03	-0.08						1.0
QRWL	SZ	166	142	EP		6	4	33.57	-0.03						1.0
FKH	SZ	176	108	EP		6	4	34.90	0.08						1.0
RCY	SZ	179	140	EP		6	4	35.29	-0.01						1.0

April 16 2020 Hour: 11:12 53.6 Lat: 34.56N Lon: 36.28E Depth: 15 Agency: REL Local
Magnitudes: 2.7MC REL
AKKAR REGION

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
BEIL	SZ	9	258	EP		1112	56.52	0.00	42						1.0
BEIL	SN	9	258	ES		1112	58.69	0.02							1.0
FKH	SZ	37	162	EP		1113	0.06	0.02							1.0
FKH	SN	37	162	ES		1113	4.77	-0.02							1.0
HWQ	BZ	44	225	EP		1113	0.99	-0.10							1.0
DQRL	SZ	115	215	EP		1113	11.87	0.31							0.2
RCY	SZ	125	199	EP		1113	13.46	0.46							0.2
QRWL	SZ	125	207	EP		1113	13.51	0.50							0.2

April 16 2020 Hour: 11:45 25.4 Lat: 22.84N Lon: 94.04E Depth: 15 Agency: REL Distant
EMSC OT=11:45:25.4 22.84N 94.04E 20Km M=5.9 MYANMAR

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
HWQ	BZ			EP		1154	31.19								
BHL	BZ			EP		1154	33.06								

**April 16 2020 Hour: 17:39 23.2 Lat: 36.03N Lon: 35.37E Depth: 33 Agency: REL Regional
Magnitudes: 3.4MC REL
OFFSHORE SYRIA**

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
BEIL	SZ	181	156	EP		1739	48.73	-0.13	84						1.0
BEIL	SN	181	156	ES		1740	7.72	-0.11							1.0
HWQ	BZ	202	165	EP		1739	51.40	-0.04							1.0
HWQ	BN	202	165	ES		1740	12.35	0.02							1.0
FKH	SZ	220	154	EP		1739	53.81	0.10							1.0
FKH	SN	220	154	ES		1740	16.36	0.09							1.0
BHL	BZ	238	174	EP		1739	55.88	-0.00							1.0
ZAHL	SZ	246	169	EP		1739	57.03	0.10							1.0
DQRL	SZ	259	176	EP		1739	58.40	-0.12							1.0
QRWL	SZ	277	174	EP		1740	0.88	0.09							1.0

**April 17 2020 Hour: 21:42 36.3 Lat: 35.96N Lon: 35.51E Depth: 9 Agency: REL Regional
Magnitudes: 3.5MC REL
OFFSHORE SYRIA**

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
BEIL	SZ	168	158	EP		2143	2.37	0.08	106						1.0
BEIL	SN	168	158	ES		2143	21.54	-0.02							1.0
HWQ	BZ	190	168	EP		2143	5.00	-0.06							1.0
HWQ	BN	190	168	ES		2143	26.40	0.02							1.0
BHL	BZ	228	177	EP		2143	9.79	0.07							1.0
ZAHL	SZ	235	171	EP		2143	10.59	-0.05							1.0
DQRL	SZ	250	179	EP		2143	12.46	0.05							1.0
QRWL	SZ	268	177	EP		2143	14.59	-0.03							1.0
RCY	SZ	274	174	EP		2143	15.47	-0.06							1.0

**April 18 2020 Hour: 2:1 18.9 Lat: 35.84N Lon: 35.61E Depth: 11 Agency: REL Regional
Magnitudes: 3.4MC REL**

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
BEIL	SZ	153	160	EP		2	1	42.61	0.01	95					1.0
BEIL	SN	153	160	ES		2	2	0.12	-0.01						1.0
HWQ	BZ	176	170	EP		2	1	45.78	0.04						1.0
HWQ	BN	176	170	ES		2	2	5.60	0.01						1.0
BHL	BZ	215	179	EP		2	1	50.46	-0.08						1.0
ZAHL	SZ	222	173	EP		2	1	51.38	0.00						1.0
DQRL	SZ	237	181	EP		2	1	53.36	0.09						1.0
QRWL	SZ	255	178	EP		2	1	55.49	0.04						1.0
RCY	SZ	261	175	EP		2	1	56.20	-0.10						1.0

April 18 2020 Hour: 8:25 37.6 Agency: REL Distant
EMSC OT=08:25:37.6 27.13N 140.09E 470Km M=6.6 BONIN ISLANDS.'LCRCP'TGI KQP

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
HWQ	BZ			EP			837	26.11							
BHL	BZ			EP			837	27.66							

April 18 2020 Hour: 9:24 18.0 Agency: REL Distant
EMSC OT=09:24:18.0 27.20N 140.00E 477Km M=5.7 BONIN ISLANDS.'LCRCP'TGI KQP

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
HWQ	BZ			EP			936	5.07							
BHL	BZ			EP			936	6.83							

April 19 2020 Hour: 12:1 14.0 Agency: REL Regional
EMSC OT=12:01:14.0 35.18N 27.98E 10Km M=3.8 DODECANESE ISLANDS.'T TGEG

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
DQRL	SZ			EP			12	2	46.44						
QRWL	SZ			EP			12	2	49.81						
HWQ	BZ			EP			12	2	50.09						
ZAHL	SZ			EP			12	2	51.29						
RCY	SZ			EP			12	2	51.76						

BEIL SZ	EP	12 2 52.10
FKH SZ	EP	12 2 54.98

April 19 2020 Hour: 20:39 5.6

Agency: REL Distant

EMSC OT=20:39:05.6 38.95N 141.96E 42Km M=6.4 PGCT'COAST OF HONSHU.'LCRCP

STAT CO DIST AZI PHASE P	HRMN SECON TRES CODA AMPL PERI BAZ ARES VELO WT
BHL BZ EP	2051 12.27
HWQ BZ EP	2051 10.10

April 19 2020 Hour: 22:48 38.6 Lat: 35.86N Lon: 35.52E Depth: 14 Agency: REL Regional Magnitudes: 3.5MC REL

OFFSHORE SYRIA

STAT CO DIST AZI PHASE P	HRMN SECON TRES CODA AMPL PERI BAZ ARES VELO WT
BEIL SZ 158 157 EP	2249 2.92 0.04 100 1.0
BEIL SN 158 157 ES	2249 20.82-0.01 1.0
HWQ BZ 180 167 EP	2249 5.64 0.02 1.0
HWQ BN 180 167 ES	2249 25.61 0.02 1.0
BHL BZ 218 177 EP	2249 10.28 0.01 1.0
ZAHL SZ 225 171 EP	2249 11.12-0.07 1.0
DQRL SZ 239 179 EP	2249 12.96-0.01 1.0
QRWL SZ 257 177 EP	2249 15.29 0.11 1.0
RCY SZ 264 174 EP	2249 15.99-0.09 1.0

April 21 2020 Hour: 4:48 9.2 Lat: 35.87N Lon: 35.42E Depth: 12 Agency: REL Regional Magnitudes: 3.5MC REL

OFFSHORE SYRIA

STAT CO DIST AZI PHASE P	HRMN SECON TRES CODA AMPL PERI BAZ ARES VELO WT
BEIL SZ 163 155 EP	448 34.20-0.03 101 1.0
BEIL SN 163 155 ES	448 52.76 0.02 1.0
HWQ BZ 183 165 EP	448 36.82 0.04 1.0
HWQ BN 183 165 ES	448 57.17-0.02 1.0
BHL BZ 219 174 EP	448 41.28 0.02 1.0
ZAHL SZ 227 169 EP	448 42.29 0.01 1.0
QRWL SZ 259 175 EP	448 46.19 0.03 1.0
RCY SZ 266 172 EP	448 47.05-0.07 1.0

April 22 2020 Hour: 6: 5 50.1

Agency: REL Regional

EMSC OT=06:05:50.1 35.21N 26.19E 19Km M=4.2 CRETE, GREECE

STAT CO DIST AZI PHASE P	HRMN SECON TRES CODA AMPL PERI BAZ ARES VELO WT
RCY SZ EP	6 7 42.81
HWQ BZ EP	6 7 43.38
BEIL SZ EP	6 7 44.39

April 22 2020 Hour: 10:58 49.2

Agency: REL Regional

EMSC OT=10:58:49.2 34.64N 32.28E 15Km M=3.2 CYPRUS REGION

STAT CO DIST AZI PHASE P	HRMN SECON TRES CODA AMPL PERI BAZ ARES VELO WT
QRWL SZ EP	1059 36.55
HWQ BZ EP	1059 36.66
RCY SZ EP	1059 38.13
BEIL SZ EP	1059 38.68

April 22 2020 Hour: 13:55 33.1 Lat: 34.51N Lon: 34.04E Depth: 0 Agency: REL Regional Magnitudes: 4.1MC REL

Rms: 0.1 secs

EASTERN MEDITERRANEAN SEA

STAT CO DIST AZI PHASE P	HRMN SECON TRES CODA AMPL PERI BAZ ARES VELO WT
BHL BZ 163 114 EP	1355 58.87-0.04 1.0
BHL BN 163 114 ES	1356 18.01-0.04 1.0
DQRL SZ 167 122 EP	1355 59.39-0.08 1.0
HWQ BZ 177 98 EP	1356 1.07 0.09 1.0
HWQ BN 177 98 ES	1356 21.69 0.05 1.0
ZAHL SZ 184 113 EP	1356 2.11 0.01 1.0
QRWL SZ 185 125 EP	1356 2.18 0.04 1.0
BEIL SZ 197 88 EP	1356 3.44-0.10 219 1.0
BEIL SN 197 88 ES	1356 26.09-0.01 1.0

RCY SZ 200 124 EP	1356	4.13	0.08	1.0
FKH SZ 220 97 EP	1356	6.47	0.01	1.0

April 22 2020 Hour: 19:58 4.6

Agency: REL Regional

EMSC OT=19:58:04.6 35.20N 27.97E 8Km M=3.3 DODECANESE ISLANDS, GREECE

STAT CO DIST AZI PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
QRWL SZ		EP		1959	41.23						
HWQ BZ		EP		1959	41.09						
ZAHL SZ		EP		1959	41.57						
RCY SZ		EP		1959	42.93						
BEIL SZ		EP		1959	43.48						

April 22 2020 Hour: 20:22 47.3

Agency: REL Distant

EMSC OT=20:22:47.3 13.74N 51.63E 10Km M=5.0 GULF OF ADEN

STAT CO DIST AZI PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
HWQ BZ		EP		2028	11.02						
BHL BZ		EP		2028	9.83						

April 22 2020 Hour: 22:31 24.8

Agency: REL Distant

EMSC OT=22:31:24.8 22.08S 175.49W 40Km M=5.5 TONGA REGION

STAT CO DIST AZI PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
HWQ BZ		EP		2251	11.24						
BHL BZ		EP		2251	12.58						

April 24 2020 Hour: 13:16 2.8

Agency: REL Regional

EMSC OT=13:16:02.8 35.78N 27.96E 51Km M=4.9 DODECANESE ISLANDS, GREECE

STAT CO DIST AZI PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
DQRL SZ		EP		1317	36.51						
HWQ BZ		EP		1317	38.02						
QRWL SZ		EP		1317	38.43						
ZAHL SZ		EP		1317	38.62						
BEIL SZ		EP		1317	39.73						
RCY SZ		EP		1317	40.63						
FKH SZ		EP		1317	43.60						

April 26 2020 Hour: 21:18 37.6 Lat: 33.98N Lon: 35.88E Depth: 11 Agency: REL Local Magnitudes: 3.0MC REL

Rms: 0.0 secs

KESROUAN REGION

STAT CO DIST AZI PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
ZAHL SZ 13 177 EP		2118	40.60-0.00								1.0
ZAHL SN 13 177 ES		2118	42.84 0.00								1.0
BHL BZ 22 248 EP		2118	41.72-0.01								1.0
HWQ BZ 34 11 EP		2118	43.42-0.01	58							1.0
HWQ BN 34 11 ES		2118	47.77 0.01								1.0
DQRL SZ 42 223 EP		2118	44.66 0.06								1.0
QRWL SZ 51 201 EP		2118	46.01-0.07								1.0
QRWL SN 51 201 ES		2118	52.35-0.02								1.0
RCY SZ 54 184 EP		2118	46.54 0.05								1.0
BEIL SZ 69 24 EP		2118	48.77-0.00								1.0

April 27 2020 Hour: 0:51 40.1 Lat: 35.92N Lon: 35.55E Depth: 12 Agency: REL Regional Magnitudes: 3.3MC REL

Rms: 0.1 secs

OFFSHORE SYRIA

STAT CO DIST AZI PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
BEIL SZ 164 159 EP		052	5.30 0.07	79							1.0
BEIL SN 164 159 ES		052	23.83-0.02								1.0
HWQ BZ 186 169 EP		052	7.95-0.11								1.0
HWQ BN 186 169 ES		052	28.81 0.03								1.0
BHL BZ 224 178 EP		052	12.70-0.09								1.0
ZAHL SZ 231 172 EP		052	13.72 0.05								1.0
DQRL SZ 246 180 EP		052	15.53 0.03								1.0
QRWL SZ 264 177 EP		052	17.78 0.08								1.0
RCY SZ 271 174 EP		052	18.54-0.03								1.0

April 27 2020 Hour: 9:35 3.1 Lat: 33.58N Lon: 35.71E Depth: 12 Agency: REL Local Magnitudes: 2.2MC REL

WEST BEKAA REGION

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
QRWL	SZ	5	216	EP		935	5.34	-0.04	20						1.0
QRWL	SN	5	216	ES		935	7.02	-0.03							1.0
RCY	SZ	15	130	EP		935	6.33	-0.04							1.0
RCY	SN	15	130	ES		935	8.86	0.08							1.0
DQRL	SZ	19	315	EP		935	6.92	0.07							1.0
ZAHL	SZ	34	28	EP		935	9.00	-0.07							1.0
BHL	BZ	36	351	EP		935	9.34	0.04							1.0

April 27 2020 Hour: 13:5 10.1 Lat: 35.89N Lon: 35.47E Depth: 12 Agency: REL Regional Magnitudes: 3.2MC REL

OFFSHORE SYRIA

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
BEIL	SZ	163	156	EP		13	5	35.27	0.10	65					1.0
BEIL	SN	163	156	ES		13	5	53.67	-0.04						1.0
HWQ	BZ	184	166	EP		13	5	37.76	-0.08						1.0
HWQ	BN	184	166	ES		13	5	58.40	0.04						1.0
FKH	SZ	202	155	EP		13	5	40.00	-0.01						1.0
QRWL	SZ	261	176	EP		13	5	47.36	0.04						1.0
RCY	SZ	268	173	EP		13	5	48.20	-0.05						1.0

April 28 2020 Hour: 0:13 42.9

Agency: REL Distant

EMSC OT=00:13:42.9 16.35S 172.98W 10Km M=5.2 SAMOA ISLANDS REGION

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
BHL	BZ			EP		033	32.12								
HWQ	BZ			EP		033	30.90								

April 28 2020 Hour: 22:36 40.3

Lat: 33.71N Lon: 34.98E Depth: 30 Agency: REL Local Magnitudes: 3.0MC REL

Rms: 0.1 secs

OFFSHORE LEBANON

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
DQRL	SZ	55	90	EP		2236	49.99	-0.02	57						1.0
DQRL	SN	55	90	ES		2236	57.13	-0.05							1.0
BHL	BZ	66	70	EP		2236	51.59	0.03							1.0
QRWL	SZ	67	105	EP		2236	51.73	0.01							1.0
RCY	SZ	83	106	EP		2236	53.97	0.08							1.0
RCY	SN	83	106	ES		2237	3.88	-0.04							1.0
ZAHL	SZ	86	78	EP		2236	54.35	0.08							1.0
HWQ	BZ	110	54	EP		2236	57.26	-0.06							1.0
HWQ	BN	110	54	ES		2237	9.97	0.07							1.0
BEIL	SZ	145	50	EP		2237	1.54	-0.09							1.0

April 29 2020 Hour: 9:0 36.4

Lat: 35.61N Lon: 35.35E Depth: 18 Agency: REL Regional Magnitudes: 3.1MC REL

Rms: 0.0 secs

OFFSHORE SYRIA

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
BEIL	SZ	141	147	EP		9	0	58.12	0.00	61					1.0
BEIL	SN	141	147	ES		9	1	14.17	-0.00						1.0
HWQ	BZ	158	160	EP		9	1	0.34	0.03						1.0
HWQ	BN	158	160	ES		9	1	18.00	0.00						1.0
FKH	SZ	180	147	EP		9	1	3.07	-0.01						1.0
FKH	SN	180	147	ES		9	1	22.80	-0.00						1.0
BHL	BZ	191	172	EP		9	1	4.54	0.04						1.0
RCY	SZ	239	169	EP		9	1	10.36	-0.06						1.0

**April 29 2020 Hour: 16:55 55.6 Lat: 34.04N Lon: 35.96E Depth: 0 Agency: REL Local
Magnitudes: 3.2MC REL Rms: 0.1 secs**

BAALBECK REGION

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
ZAHL	SZ	21	200	EP		1655	58.88	-0.10							1.0
HWQ	BZ	27	357	EP		1655	59.78	-0.08	77						1.0
HWQ	BN	27	357	ES		1656	3.06	0.01							1.0
BHL	BZ	32	243	EP		1656	0.68	-0.06							1.0
BHL	BN	32	243	ES		1656	4.66	0.09							1.0
DQRL	SZ	52	225	EP		1656	3.85	-0.05							1.0
BEIL	SZ	60	20	EP		1656	5.25	0.10							1.0
QRWL	SZ	60	206	EP		1656	5.19	-0.08							1.0
RCY	SZ	61	191	EP		1656	5.53	0.10							1.0
RCY	SN	61	191	ES		1656	12.79	0.06							1.0

April 29 2020 Hour: 17: 1 35.2

Agency: REL Regional

EMSC OT=17:01:35.2 35.38N 45.14E 10Km M=4.8 IRAN-IRAQ BORDER REGION

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
BEIL	SZ			EP		17	3	23.58							
HWQ	BZ			EP		17	3	27.91							
ZAHL	SZ			EP		17	3	30.30							
BHL	BZ			EP		17	3	33.21							
RCY	SZ			EP		17	3	32.00							
QRWL	SZ			EP		17	3	34.00							
DQRL	SZ			EP		17	3	34.99							

April 30 2020 Hour: 8:45 34.8

Agency: REL Regional

EMSC OT=08:45:34.8 38.44N 39.20E 3Km M=4.2 EASTERN TURKEY

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
BEIL	SZ			EP		846	45.93								
FKH	SZ			EP		846	48.31								
HWQ	BZ			EP		846	50.39								
ZAHL	SZ			EP		846	55.88								
DQRL	SZ			EP		846	60.00								
QRWL	SZ			EP		847	1.59								

April 30 2020 Hour: 10: 9 46.6

Agency: REL Regional

EMSC OT=10:09:46.6 37.01N 28.53E 7Km M=4.7 WESTERN TURKEY

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
DQRL	SZ			EP		1011	22.96								
HWQ	BZ			EP		1011	23.95								
BEIL	SZ			EP		1011	24.19								
QRWL	SZ			EP		1011	26.05								
RCY	SZ			EP		1011	27.46								
FKH	SZ			EP		1011	28.42								

April 30 2020 Hour: 21:17 39.1 Lat: 33.71N Lon: 35.79E Depth: 16 Agency: REL Local

Magnitudes: 2.2MC REL

Rms: 0.0 secs

WEST BEKAA REGION

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
ZAHL	SZ	19	29	EP		2117	43.19	-0.03	19						1.0
ZAHL	SN	19	29	ES		2117	46.28	0.03							1.0
DQRL	SZ	20	268	EP		2117	43.44	0.07							1.0
QRWL	SZ	21	208	EP		2117	43.45	0.04							1.0
QRWL	SN	21	208	ES		2117	46.54	-0.05							1.0
RCY	SZ	24	169	EP		2117	43.92	0.00							1.0
BHL	BZ	25	330	EP		2117	43.87	-0.07							1.0

Epicentral Map of Lebanon

April 2020

