

Republic of Lebanon
National Council for Scientific Research

Provisional Seismological Bulletin

from the

NATIONAL SEISMIC NETWORK

March

2021

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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
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 ($0.5 \times (\text{peak to peak})$), (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.

March 1 2021 Hour: 19:50 26.9 Lat: 33.66N Lon: 35.70E Depth: 8 Agency: REL Local
Magnitudes: 2.4MC 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	12	188	EP		1950	29.30	-0.05	27						1.0
QRWL	SE	12	188	ES		1950	31.16	-0.04							1.0
DQRL	SZ	13	293	EP		1950	29.53	0.07							1.0
DQRL	SN	13	293	ES		1950	31.42	0.03							1.0
RCY	SZ	22	145	EP		1950	30.79	0.07							1.0
BHL	BZ	28	351	EP		1950	31.44	-0.11							1.0
ZAHL	SZ	28	38	EP		1950	32.18	0.56							0.2
SHBL	SZ	35	173	EP		1950	32.73	0.07							0.2

March 2 2021 Hour: 21:22 46.7 Agency: REL Distant

EMSC OT=21:22:46.7 44.06N 147.91E 35Km M=5.8 KURIL ISLANDS

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
BEIL	SZ			EP		2134	54.42								
HWQ	BZ			EP		2134	55.92								
BHL	BZ			EP		2134	58.19								
RCY	SZ			EP		2134	59.45								
DQRL	SZ			EP		2134	59.69								
QRWL	SZ			EP		2134	59.83								
SHBL	SZ			EP		2135	0.36								

March 3 2021 Hour: 10:16 8.3 Agency: REL Regional

EMSC OT=10:16:08.3 39.76N 22.21E 8Km M=6.3 GREECE

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
BHL	BZ			EP		1019	7.09								
HWQ	BZ			EP		1019	8.38								
DQRL	SZ			EP		1019	8.10								
BEIL	SZ			EP		1019	8.56								
QRWL	SZ			EP		1019	10.57								
RCY	SZ			EP		1019	11.12								
SHBL	SZ			EP		1019	12.40								

March 3 2021 Hour: 18:24 7.7 Agency: REL Regional

EMSC OT=18:24:07.7 39.73N 22.10E 6Km M=5.1 GREECE

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
HWQ	BZ			EP		1827	1.94								
BHL	BZ			EP		1827	4.86								
RCY	SZ			EP		1827	8.32								
QRWL	SZ			EP		1827	5.66								
BEIL	SZ			EP		1827	8.19								

March 4 2021 Hour: 16:53 10.8 Agency: REL Distant

EMSC OT=16:53:10.8 14.38S 167.38E 169Km M=6.1 VANUATU

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
BEIL	SZ			EP		1712	4.36								
HWQ	BZ			EP		1712	4.26								
BHL	BZ			EP		1712	4.95								
DQRL	SZ			EP		1712	6.19								
RCY	SZ			EP		1712	6.17								
SHBL	SZ			EP		1712	5.80								

March 4 2021 Hour: 17:41 25.2 Agency: REL Distant

EMSC OT=17:41:25.2 29.60S 177.80W 49Km M=7.4 KERMADEC ISLANDS

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
RCY	SZ			EP		18 1	6.40								
HWQ	BZ			EP		18 1	5.30								
BHL	BZ			EP		18 1	5.65								
QRWL	SZ			EP		18 1	6.60								
SHBL	SZ			EP		18 1	6.70								
DQRL	SZ			EP		18 1	11.57								

BEIL SZ EP 18 1 10.29

March 4 2021 Hour: 17:59 6.5

Agency: REL Distant

EMSC OT=17:59:06.5 30.04S 177.38W 10Km M=5.6 KERMADEC ISLANDS

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
BEIL	SZ			EP		1819	5.44								
RCY	SZ			EP		1819	5.61								
SHBL	SZ			EP		1819	6.18								
HWQ	BZ			EP		1819	6.43								
QRWL	SZ			EP		1819	6.02								
BHL	BZ			EP		1819	6.92								
DQRL	SZ			EP		1819	7.41								

March 4 2021 Hour: 18:38 17.1

Agency: REL Regional

EMSC OT=18:38:17.1 39.78N 22.12E 10Km M=5.8 GREECE

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
HWQ	BZ			EP		1841	18.00								
BHL	BZ			EP		1841	17.62								
DQRL	SZ			EP		1841	19.74								
BEIL	SZ			EP		1841	20.57								
QRWL	SZ			EP		1841	22.39								
RCY	SZ			EP		1841	21.70								
SHBL	SZ			EP		1841	22.23								

March 4 2021 Hour: 19:23 50.4

Agency: REL Regional

EMSC OT=19:23:50.4 39.84N 21.94E 9Km M=5.1 GREECE

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
BEIL	SZ			EP		1926	29.34								
HWQ	BZ			EP		1926	29.27								
BHL	BZ			EP		1926	29.38								
RCY	SZ			EP		1926	30.31								
DQRL	SZ			EP		1926	30.77								
QRWL	SZ			EP		1926	30.63								
SHBL	SZ			EP		1926	30.36								

March 4 2021 Hour: 19:13 12.1

Agency: REL Distant

EMSC OT=19:13:12.1 29.61S 177.30W 27Km M=5.1 KERMADEC ISLANDS

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
BEIL	SZ			EP		1933	4.90								
HWQ	BZ			EP		1933	4.81								
RCY	SZ			EP		1933	5.75								
BHL	BZ			EP		1933	5.82								
QRWL	SZ			EP		1933	6.08								
SHBL	SZ			EP		1933	6.06								
DQRL	SZ			EP		1933	6.38								

March 4 2021 Hour: 19:28 36.6

Agency: REL Distant

EMSC OT=19:28:35.6 29.54S 177.28W 25Km M=8.1 KERMADEC ISLANDS

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
BEIL	SZ			EP		1948	28.21								
HWQ	BZ			EP		1948	28.22								
BHL	BZ			EP		1948	28.26								
DQRL	SZ			EP		1948	28.59								
QRWL	SZ			EP		1948	28.46								
RCY	SZ			EP		1948	29.28								
SHBL	SZ			EP		1948	29.24								

March 4 2021 Hour: 20:3 8.1

Agency: REL Regional

EMSC OT=20:03:08.1 39.74N 22.09E 3Km M=4.1 GREECE

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
BEIL	SZ			EP		20 6	11.40								
HWQ	BZ			EP		20 6	11.64								
RCY	SZ			EP		20 6	12.35								
SHBL	SZ			EP		20 6	12.80								

QRWL	SZ	EP	20	6	12.40
BHL	BZ	EP	20	6	12.55
DQRL	SZ	EP	20	6	13.70

March 4 2021 Hour: 21: 4 1.1

Agency: REL Distant

EMSC OT=21:04:01.1 37.85S 179.69W 10Km M=5.6 EAST COAST OF NORTH ISLAND

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
BEIL	SZ			EP		2123	58.98								
HWQ	BZ			EP		2123	59.43								
RCY	SZ			EP		2123	59.85								
BHL	BZ			EP		2123	59.72								
SHBL	SZ			EP		2124	0.24								
QRWL	SZ			EP		2123	59.93								
DQRL	SZ			EP		2124	0.45								

March 4 2021 Hour: 22: 0 8.9

Agency: REL Distant

EMSC OT=22:00:08.9 29.21S 177.05W 35Km M=5.2 KERMADEC ISLANDS

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
BEIL	SZ			EP		2219	59.11								
HWQ	BZ			EP		2220	0.26								
RCY	SZ			EP		2220	0.11								
BHL	BZ			EP		2219	59.70								
QRWL	SZ			EP		2220	0.41								
SHBL	SZ			EP		2220	0.29								
DQRL	SZ			EP		2220	0.82								

March 4 2021 Hour: 22: 5 55.4

Agency: REL Distant

EMSC OT=22:05:55.4 28.79S 176.65W 10Km M=5.5 KERMADEC ISLANDS

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
BEIL	SZ			EP		2225	50.08								
HWQ	BZ			EP		2225	51.29								
RCY	SZ			EP		2225	51.11								
BHL	BZ			EP		2225	50.94								
QRWL	SZ			EP		2225	51.30								
SHBL	SZ			EP		2225	51.44								
DQRL	SZ			EP		2225	51.67								

March 4 2021 Hour: 23:24 31.9

Lat: 34.36N

Lon: 37.35E

Depth: 4

Agency: REL Regional

Magnitudes: 4.0MC REL

Rms: 0.1 secs

SYRIA REGION

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
BEIL	SZ	109	281	EP		2324	49.64	0.11							1.0
BEIL	SN	109	281	ES		2325	2.57	-0.01							1.0
HWQ	BZ	130	266	EP		2324	52.39	-0.22	227						1.0
HWQ	BN	130	266	ES		2325	7.97	0.03							1.0
ZAHL	SZ	147	248	EP		2324	55.23	0.15							1.0
BHL	BZ	165	252	EP		2324	57.71	-0.03							1.0
RCY	SZ	170	236	EP		2324	58.47	-0.08							1.0
QRWL	SZ	179	240	EP		2324	59.82	0.05							1.0
DQRL	SZ	180	247	EP		2324	59.92	0.01							1.0
SHBL	SZ	187	233	EP		2325	0.79	0.01							1.0

March 4 2021 Hour: 23:28 29.9

Agency: REL Distant

EMSC OT=23:28:29.9 28.99S 176.96W 10Km M=4.9 KERMADEC ISLANDS

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
BEIL	SZ			EP		2348	24.07								
HWQ	BZ			EP		2348	24.23								
BHL	BZ			EP		2348	24.83								
RCY	SZ			EP		2348	25.19								
DQRL	SZ			EP		2348	25.72								
QRWL	SZ			EP		2348	25.35								
SHBL	SZ			EP		2348	25.49								

March 4 2021 Hour: 23:35 52.9 **Agency: REL Distant**
EMSC OT=23:34:52.9 28.57S 176.24W 10Km M=5.5 KERMADEC ISLANDS

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
HWQ	BZ			EP		2357	1.65								
BEIL	SZ			EP		2357	3.93								
RCY	SZ			EP		2357	4.48								
BHL	BZ			EP		2357	4.42								
QRWL	SZ			EP		2357	4.83								
DQRL	SZ			EP		2357	5.33								
SHBL	SZ			EP		2357	5.04								

March 4 2021 Hour: 23:42 0.5 **Agency: REL Distant**
EMSC OT=23:42:00.5 29.32S 176.67W 97Km M=5.1 KERMADEC ISLANDS

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
BEIL	SZ			EP		24 1	48.99								
HWQ	BZ			EP		24 1	49.31								
RCY	SZ			EP		24 1	49.61								
SHBL	SZ			EP		24 1	50.27								
BHL	BZ			EP		24 1	50.14								
QRWL	SZ			EP		24 1	49.89								
DQRL	SZ			EP		24 1	50.55								

March 4 2021 Hour: 23:52 53.2 **Agency: REL Distant**
EMSC OT=23:52:53.2 29.34S 176.98W 10Km M=5.1 KERMADEC ISLANDS

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
BEIL	SZ			EP		2412	47.59								
HWQ	BZ			EP		2412	47.50								
BHL	BZ			EP		2412	48.34								
RCY	SZ			EP		2412	48.30								
QRWL	SZ			EP		2412	48.51								
SHBL	SZ			EP		2412	48.34								
DQRL	SZ			EP		2412	48.34								

March 5 2021 Hour: 0:19 38.8 **Agency: REL Distant**
EMSC OT=00:19:38.8 29.25S 176.97W 10Km M=5.6 KERMADEC ISLANDS

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
HWQ	BZ			EP		039	32.53								
BHL	BZ			EP		039	32.20								
BEIL	SZ			EP		039	33.18								
RCY	SZ			EP		039	34.36								
DQRL	SZ			EP		039	34.90								
QRWL	SZ			EP		039	34.16								
SHBL	SZ			EP		039	34.63								

March 5 2021 Hour: 0:49 17.7 **Agency: REL Distant**
EMSC OT=00:49:17.7 29.14S 176.87W 10Km M=5.2 KERMADEC ISLANDS

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
BEIL	SZ			EP		1 9	12.75								
HWQ	BZ			EP		1 9	13.55								
RCY	SZ			EP		1 9	13.64								
BHL	BZ			EP		1 9	13.83								
SHBL	SZ			EP		1 9	14.03								
QRWL	SZ			EP		1 9	14.08								
DQRL	SZ			EP		1 9	14.48								

March 5 2021 Hour: 0:58 27.0 **Agency: REL Distant**
EMSC OT=00:58:27.0 30.08S 177.36W 10Km M=5.6 KERMADEC ISLANDS

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
BEIL	SZ			EP		118	21.41								
HWQ	BZ			EP		118	21.93								
BHL	BZ			EP		118	22.08								
DQRL	SZ			EP		118	22.23								
RCY	SZ			EP		118	22.15								

QRWL	SZ	EP	118	22.45
SHBL	SZ	EP	118	22.82

March 5 2021 Hour: 8:13 42.8

Agency: REL Distant

EMSC OT=08:13:42.8 29.54S 176.21W 15Km M=5.9 KERMADEC ISLANDS

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
BEIL	SZ			EP		833	37.91								
HWQ	BZ			EP		833	39.53								
RCY	SZ			EP		833	40.08								
QRWL	SZ			EP		833	40.02								
BHL	BZ			EP		833	39.17								
SHBL	SZ			EP		833	40.20								
DQRL	SZ			EP		833	40.86								

March 5 2021 Hour: 14:24 50.6

Agency: REL Distant

EMSC OT=14:24:50.6 29.02S 176.30W 10Km M=6.2 KERMADEC ISLANDS

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
HWQ	BZ			EP		1444	41.01								
BHL	BZ			EP		1444	41.80								
RCY	SZ			EP		1444	43.11								
BEIL	SZ			EP		1444	42.20								
QRWL	SZ			EP		1444	43.68								
SHBL	SZ			EP		1444	43.68								

March 5 2021 Hour: 20:26 36.5

Agency: REL Distant

EMSC OT=20:26:36.5 30.13S 176.99W 10Km M=5.9 KERMADEC ISLANDS

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
HWQ	BZ			EP		2046	24.26								
BHL	BZ			EP		2046	25.86								
DQRL	SZ			EP		2046	32.17								
QRWL	SZ			EP		2046	29.15								
BEIL	SZ			EP		2046	30.85								
SHBL	SZ			EP		2046	30.47								

March 5 2021 Hour: 21:33 23.7

Agency: REL Distant

EMSC OT=21:33:23.7 37.55S 179.59E 10Km M=5.1 EAST COAST OF N. ISLAND, N.Z

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
BEIL	SZ			EP		2153	15.66								
RCY	SZ			EP		2153	15.29								
HWQ	BZ			EP		2153	15.81								
SHBL	SZ			EP		2153	16.19								
QRWL	SZ			EP		2153	16.41								
BHL	BZ			EP		2153	15.74								
DQRL	SZ			EP		2153	16.56								

March 5 2021 Hour: 23:17 30.0

Agency: REL Distant

EMSC OT=23:17:30.0 28.95S 176.77W 10Km M=5.3 KERMADEC ISLANDS

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
BEIL	SZ			EP		2337	24.55								
HWQ	BZ			EP		2337	24.71								
BHL	BZ			EP		2337	25.53								
RCY	SZ			EP		2337	25.85								
DQRL	SZ			EP		2337	25.81								
QRWL	SZ			EP		2337	25.69								
SHBL	SZ			EP		2337	25.85								

March 6 2021 Hour: 0:16 21.3

Agency: REL Distant

EMSC OT=00:16:21.3 37.56S 179.58E 10Km M=6.3 EAST COAST OF N. ISLAND, N.Z

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
HWQ	BZ			EP		036	6.92								
RCY	SZ			EP		036	9.32								
BHL	BZ			EP		036	8.02								
QRWL	SZ			EP		036	8.82								
BEIL	SZ			EP		036	9.82								

DQRL	SZ	EP	036	10.62
SHBL	SZ	EP	036	8.42

March 6 2021 Hour: 7:16 29.5

Agency: REL Distant

EMSC OT=07:16:29.5 28.45S 176.90W 10Km M=6.1 KERMADEC ISLANDS

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
BEIL	SZ			EP		736	16.68								
RCY	SZ			EP		736	17.09								
HWQ	BZ			EP		736	18.25								
SHBL	SZ			EP		736	17.62								
QRWL	SZ			EP		736	18.40								
BHL	BZ			EP		736	17.62								
DQRL	SZ			EP		736	17.62								

March 6 2021 Hour: 10:34 48.1

Agency: REL Distant

EMSC OT=10:34:48.1 28.23S 177.75W 10Km M=6.1 KERMADEC ISLANDS

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
BHL	BZ			EP		1054	35.69								
HWQ	BZ			EP		1054	35.69								
DQRL	SZ			EP		1054	35.16								
QRWL	SZ			EP		1054	37.71								
RCY	SZ			EP		1054	35.96								
BEIL	SZ			EP		1054	36.95								
SHBL	SZ			EP		1054	38.15								

March 6 2021 Hour: 12: 5 22.8

Agency: REL Distant

EMSC OT=12:05:22.8 28.28S 177.82W 10Km M=6.2 KERMADEC ISLANDS

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
HWQ	BZ			EP		1225	7.69								
BEIL	SZ			EP		1225	9.19								
BHL	BZ			EP		1225	8.97								
RCY	SZ			EP		1225	9.76								
QRWL	SZ			EP		1225	9.83								
DQRL	SZ			EP		1225	10.19								
SHBL	SZ			EP		1225	9.90								

March 6 2021 Hour: 13:12 5.6

Agency: REL Distant

EMSC OT=13:12:05.6 28.25S 177.68W 10Km M=6.1 KERMADEC ISLANDS

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
RCY	SZ			EP		1331	51.58								
BEIL	SZ			EP		1331	51.22								
HWQ	BZ			EP		1331	51.06								
QRWL	SZ			EP		1331	52.88								
SHBL	SZ			EP		1331	51.82								
BHL	BZ			EP		1331	52.43								

March 6 2021 Hour: 14:41 26.8

Agency: REL Distant

EMSC OT=14:41:26.8 29.07S 176.67W 37Km M=5.0 KERMADEC ISLANDS

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
BEIL	SZ			EP		15 1	18.03								
RCY	SZ			EP		15 1	19.15								
HWQ	BZ			EP		15 1	20.77								
SHBL	SZ			EP		15 1	19.04								
QRWL	SZ			EP		15 1	19.75								
BHL	BZ			EP		15 1	18.64								
DQRL	SZ			EP		15 1	20.66								

March 6 2021 Hour: 17: 8 54.3

Agency: REL Distant

EMSC OT=17:08:54.3 1.24S 10.21E 10Km M=5.2 GABON

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
SHBL	SZ			EP		1716	46.57								
DQRL	SZ			EP		1716	48.50								
QRWL	SZ			EP		1716	47.76								
RCY	SZ			EP		1716	50.08								

BHL	BZ	EP	1716	49.10
HWQ	BZ	EP	1716	53.11
BEIL	SZ	EP	1716	55.36

March 6 2021 Hour: 17:32 39.2 **Agency: REL Distant**
EMSC OT=17:32:39.2 31.82S 174.36W 10Km M=6.0 KERMADEC ISLANDS

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
BEIL	SZ			EP		1752	52.10								
HWQ	BZ			EP		1752	54.24								
BHL	BZ			EP		1752	53.95								
QRWL	SZ			EP		1752	53.95								
SHBL	SZ			EP		1752	54.80								
DQRL	SZ			EP		1752	54.59								

March 6 2021 Hour: 19:48 26.0 **Agency: REL Distant**
EMSC OT=19:48:26.0 37.91S 179.90W 10Km M=5.0 EAST OF NORTH ISLAND, N.Z

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
BEIL	SZ			EP		20 8	6.95								
HWQ	BZ			EP		20 8	7.05								
RCY	SZ			EP		20 8	7.70								
SHBL	SZ			EP		20 8	7.80								
BHL	BZ			EP		20 8	7.70								
QRWL	SZ			EP		20 8	7.75								
DQRL	SZ			EP		20 8	8.20								

March 6 2021 Hour: 23:22 53.9 **Agency: REL Regional**
EMSC OT=23:22:53.9 39.79N 22.03E 4Km M=3.0 GREECE

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
BEIL	SZ			EP		2324	51.50								
RCY	SZ			EP		2324	53.94								
HWQ	BZ			EP		2324	53.55								
SHBL	SZ			EP		2324	53.89								
QRWL	SZ			EP		2324	53.66								
BHL	BZ			EP		2324	53.61								
DQRL	SZ			EP		2324	53.39								

March 6 2021 Hour: 23: 8 7.4 **Agency: REL Distant**
EMSC OT=23:08:07.4 29.35S 176.69W 10Km M=5.3 KERMADEC ISLANDS

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
BEIL	SZ			EP		2328	3.23								
HWQ	BZ			EP		2328	4.57								
RCY	SZ			EP		2328	5.51								
SHBL	SZ			EP		2328	5.10								
QRWL	SZ			EP		2328	5.51								
BHL	BZ			EP		2328	5.28								
DQRL	SZ			EP		2328	5.69								

March 6 2021 Hour: 23:30 4.1 **Agency: REL Distant**
EMSC OT=23:30:04.1 28.19S 177.72W 10Km M=5.4 KERMADEC ISLANDS

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
BEIL	SZ			EP		2349	54.23								
HWQ	BZ			EP		2349	55.62								
BHL	BZ			EP		2349	55.98								
DQRL	SZ			EP		2349	56.61								
QRWL	SZ			EP		2349	56.30								
SHBL	SZ			EP		2349	56.72								

March 7 2021 Hour: 0:40 10.9 **Agency: REL Distant**
EMSC OT=00:40:10.9 37.17S 179.92W 10Km M=5.3 EAST OF NORTH ISLAND, N.Z

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
DQRL	SZ			EP		1 0	2.00								
BHL	BZ			EP		1 0	3.48								
QRWL	SZ			EP		1 0	4.33								
HWQ	BZ			EP		1 0	5.46								

SHBL	SZ	EP	1	0	4.43
BEIL	SZ	EP	1	0	3.81

March 7 2021 Hour: 2: 7 15.0

Agency: REL Distant

EMSC OT=02:07:15.0 28.47S 176.54W 37Km M=5.2 KERMADEC ISLANDS

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
BEIL	SZ			EP		227	5.63								
HWQ	BZ			EP		227	6.41								
BHL	BZ			EP		227	7.03								
RCY	SZ			EP		227	7.19								
QRWL	SZ			EP		227	7.42								
DQRL	SZ			EP		227	6.95								
SHBL	SZ			EP		227	6.95								

March 7 2021 Hour: 7:56 19.8

Agency: REL Distant

EMSC OT=07:56:19.8 32.56S 178.02W 10Km M=5.4 SOUTH OF KERMADEC ISLANDS

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
HWQ	BZ			EP		816	7.21								
BHL	BZ			EP		816	8.02								
BEIL	SZ			EP		816	7.98								
DQRL	SZ			EP		816	7.71								
SHBL	SZ			EP		816	8.29								

March 7 2021 Hour: 11:19 23.2

Agency: REL Distant

EMSC OT=11:19:23.2 32.68S 178.27W 35Km M=5.1 SOUTH OF KERMADEC ISLANDS

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
BEIL	SZ			EP		1139	13.83								
HWQ	BZ			EP		1139	14.23								
RCY	SZ			EP		1139	14.72								
BHL	BZ			EP		1139	14.40								
QRWL	SZ			EP		1139	14.40								
DQRL	SZ			EP		1139	14.56								
SHBL	SZ			EP		1139	14.40								

March 7 2021 Hour: 11:24 56.2

Agency: REL Distant

EMSC OT=11:24:56.2 29.40S 176.72W 10Km M=5.2 KERMADEC ISLANDS

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
BEIL	SZ			EP		1144	51.82								
HWQ	BZ			EP		1144	52.29								
RCY	SZ			EP		1144	52.60								
BHL	BZ			EP		1144	52.99								
SHBL	SZ			EP		1144	53.30								
QRWL	SZ			EP		1144	52.91								
DQRL	SZ			EP		1144	53.46								

March 7 2021 Hour: 12:13 26.5

Lat: 33.92N

Lon: 35.48E

Depth: 17

Agency: REL Local

Magnitudes: 2.9MC REL

Rms: 0.0 secs

BEIRUT REGION

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
BEYL	SZ	6	166	EP		1213	29.41-0.03								0.2
BHL	BZ	16	97	EP		1213	30.38-0.04		52						1.0
BHL	BN	16	97	ES		1213	33.37 0.02								1.0
DQRL	SZ	25	160	EP		1213	31.47 0.00								1.0
ZAHL	SZ	38	101	EP		1213	33.24 0.02								1.0
SAIL	SZ	39	191	EP		1213	33.25 0.01								1.0
QRWL	SZ	46	155	EP		1213	34.20-0.02								1.0
QRWL	SN	46	155	ES		1213	39.98 0.01								1.0
RCY	SZ	58	145	EP		1213	35.92-0.08								1.0
HWQ	BZ	59	47	EP		1213	36.18 0.07								1.0
SHBL	SZ	68	159	EP		1213	37.61 0.07								1.0
BEIL	SZ	95	43	EP		1213	41.33-0.03								1.0
BEIL	SN	95	43	ES		1213	52.38-0.01								1.0

March 7 2021 Hour: 19:28 47.3 **Agency: REL Distant**
EMSC OT=19:28:47.3 28.63S 176.97W 10Km M=5.2 KERMADEC ISLANDS
 STAT CO DIST AZI PHASE P HRMN SECON TRES CODA AMPL PERI BAZ ARES VELO WT
 BEIL SZ EP 1948 41.88
 HWQ BZ EP 1948 42.53
 RCY SZ EP 1948 43.13
 BHL BZ EP 1948 43.01
 SHBL SZ EP 1948 42.93
 QRWL SZ EP 1948 43.17
 DQRL SZ EP 1948 43.37

March 9 2021 Hour: 4:30 34.7 **Agency: REL Regional**
EMSC OT=04:30:34.7 34.10N 25.90E 40Km M=4.8 CRETE, GREECE
 STAT CO DIST AZI PHASE P HRMN SECON TRES CODA AMPL PERI BAZ ARES VELO WT
 QRWL SZ EP 432 27.54
 RCY SZ EP 432 29.74
 BHL BZ EP 432 30.05
 HWQ BZ EP 432 31.94
 BEIL SZ EP 432 33.04

March 10 2021 Hour: 15:57 25.7 Lat: 34.27N Lon: 36.28E Depth: 18 Agency: REL Local
Magnitudes: 3.0MC 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 31 272 EP 1557 31.47 0.02 1.0
 HWQ BN 31 272 ES 1557 35.69 0.00 1.0
 BEIL SZ 32 344 EP 1557 31.32-0.18 59 1.0
 BEIL SN 32 344 ES 1557 35.88 0.11 1.0
 ZAHN SZ 58 219 EP 1557 35.38 0.02 1.0
 ZAHN SN 58 219 ES 1557 42.40-0.09 1.0
 BHL BZ 71 235 EP 1557 37.07-0.05 1.0
 DQRL SZ 91 227 EP 1557 40.13 0.07 1.0
 RCY SZ 95 206 EP 1557 40.82 0.08 1.0
 SHBL SZ 114 206 EP 1557 43.46 0.00 1.0

March 13 2021 Hour: 14: 4 59.5 **Agency: REL Distant**
EMSC OT=14:04:59.5 29.86S 177.55W 20Km M=6.0 KERMADEC ISLANDS
 STAT CO DIST AZI PHASE P HRMN SECON TRES CODA AMPL PERI BAZ ARES VELO WT
 BEIL SZ EP 1424 50.28
 HWQ BZ EP 1424 51.07
 BHL BZ EP 1424 51.40
 RCY SZ EP 1424 51.66
 QRWL SZ EP 1424 51.53
 DQRL SZ EP 1424 51.79
 SHBL SZ EP 1424 51.86

March 13 2021 Hour: 15: 0 52.7 **Agency: REL Distant**
EMSC OT=15:00:52.7 29.55S 176.55W 2Km M=5.0 KERMADEC ISLANDS
 STAT CO DIST AZI PHASE P HRMN SECON TRES CODA AMPL PERI BAZ ARES VELO WT
 BEIL SZ EP 1520 51.69
 HWQ BZ EP 1520 51.34
 ZAHN SZ EP 1520 52.12
 BHL BZ EP 1520 52.19
 RCY SZ EP 1520 52.40
 DQRL SZ EP 1520 52.62
 QRWL SZ EP 1520 52.26
 SHBL SZ EP 1520 52.76

March 13 2021 Hour: 21:21 57.5 **Agency: REL Distant**
EMSC OT=21:21:57.5 28.29S 176.60W 10Km M=5.9 KERMADEC ISLANDS

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
BEIL	SZ			EP		2141	51.43								
HWQ	BZ			EP		2141	50.79								
BHL	BZ			EP		2141	50.91								
ZAHL	SZ			EP		2141	52.64								
DQRL	SZ			EP		2141	53.34								
QRWL	SZ			EP		2141	52.77								
RCY	SZ			EP		2141	52.77								
SHBL	SZ			EP		2141	52.77								

March 14 2021 Hour: 10:43 47.7 Lat: 34.60N Lon: 36.19E Depth: 4 Agency: REL Local
Magnitudes: 3.1MC REL Rms: 0.1 secs
AKKAR REGION

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
BEIL	SZ	6	183	EP		1043	48.86-0.14	68							1.0
BEIL	SN	6	183	ES		1043	49.96 0.03								1.0
HWQ	BZ	42	212	EP		1043	54.46-0.08								1.0
HWQ	BN	42	212	ES		1043	59.53-0.04								1.0
ZAHL	SZ	87	199	EP		1044	1.93 0.19								1.0
BHL	BZ	91	213	EP		1044	2.60 0.12								1.0
DQRL	SZ	114	210	EP		1044	6.15-0.02								1.0
DQRL	SN	114	210	ES		1044	19.77-0.03								1.0
RCY	SZ	126	195	EP		1044	7.95-0.04								1.0
SHBL	SZ	145	197	EP		1044	10.66 0.00								1.0

March 14 2021 Hour: 12:54 12.0 **Agency: REL Distant**
EMSC OT=12:54:12.0 28.12N 56.98E 60Km M=5.1 SOUTHERN IRAN

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
BEIL	SZ			EP		1258	27.76								
HWQ	BZ			EP		1258	28.77								
SHBL	SZ			EP		1258	29.95								
QRWL	SZ			EP		1258	30.29								
BHL	BZ			EP		1258	29.61								
DQRL	SZ			EP		1258	32.39								

March 15 2021 Hour: 0:14 25.5 **Agency: REL Distant**
EMSC OT=00:14:25.5 23.60S 179.89W 546Km M=5.2 SOUTH OF FIJI ISLANDS

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
BEIL	SZ			EP		033	7.45								
HWQ	BZ			EP		033	7.96								
ZAHL	SZ			EP		033	8.60								
BHL	BZ			EP		033	8.93								
RCY	SZ			EP		033	8.93								
DQRL	SZ			EP		033	9.44								
QRWL	SZ			EP		033	9.07								
SHBL	SZ			EP		033	9.39								

March 15 2021 Hour: 1:55 48.1 **Agency: REL Regional**
EMSC OT=01:55:48.1 37.15N 28.79E 2Km M=4.4 WESTERN TURKEY

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
BHL	BZ			EP		157	23.30								
DQRL	SZ			EP		157	23.95								
HWQ	BZ			EP		157	24.80								
BEIL	SZ			EP		157	25.67								
QRWL	SZ			EP		157	26.55								
ZAHL	SZ			EP		157	26.32								
RCY	SZ			EP		157	28.63								
SHBL	SZ			EP		157	28.76								

March 15 2021 Hour: 19:28 45.3 **Agency: REL Distant**
EMSC OT=19:28:45.3 29.41S 176.73W 10Km M=5.2 KERMADEC ISLANDS

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
HWQ	BZ			EP		1948	41.89								
RCY	SZ			EP		1948	42.36								
SHBL	SZ			EP		1948	42.77								
QRWL	SZ			EP		1948	42.71								
BHL	BZ			EP		1948	42.60								
DQRL	SZ			EP		1948	43.25								

March 15 2021 Hour: 20:44 34.4 **Agency: REL Distant**
EMSC OT=20:44:34.4 29.49S 176.74W 10Km M=5.1 KERMADEC ISLANDS

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
HWQ	BZ			EP		21 4	30.55								
BEIL	SZ			EP		21 4	31.05								
BHL	BZ			EP		21 4	30.88								
RCY	SZ			EP		21 4	31.82								
QRWL	SZ			EP		21 4	32.38								
DQRL	SZ			EP		21 4	32.54								
SHBL	SZ			EP		21 4	32.38								

March 15 2021 Hour: 21:31 58.6 **Agency: REL Distant**
EMSC OT=21:31:58.6 29.41S 176.78W 10Km M=5.2 KERMADEC ISLANDS

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
BEIL	SZ			EP		2151	55.12								
HWQ	BZ			EP		2151	54.94								
RCY	SZ			EP		2151	55.87								
BHL	BZ			EP		2151	55.99								
QRWL	SZ			EP		2151	56.30								
SHBL	SZ			EP		2151	56.36								
DQRL	SZ			EP		2151	56.42								

March 16 2021 Hour: 8:32 5.1 Lat: 34.34N Lon: 37.33E Depth: 3 Agency: REL Regional
Magnitudes: 3.1MC REL Rms: 0.1 secs
SYRIA REGION

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
BEIL	SZ	108	282	EP		832	22.62	0.08	66						1.0
BEIL	SN	108	282	ES		832	35.42	0.00							1.0
HWQ	BZ	128	267	EP		832	25.49	-0.10							1.0
HWQ	BN	128	267	ES		832	40.71	-0.02							1.0
ZAHL	SZ	144	249	EP		832	28.08	0.13							0.2
BHL	BZ	162	253	EP		832	30.65	0.01							1.0
RCY	SZ	167	236	EP		832	31.16	-0.21							1.0
RCY	SN	167	236	ES		832	50.83	0.05							1.0
QRWL	SZ	176	241	EP		832	32.69	0.03							1.0
DQRL	SZ	177	247	EP		832	32.88	0.03							1.0
SHBL	SZ	183	234	EP		832	33.83	0.13							1.0

March 16 2021 Hour: 18:38 23.0 **Agency: REL Distant**
EMSC OT=18:38:23.0 54.80N 163.13E 20Km M=6.6 OFF EAST COAST OF KAMCHATKA

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
BEIL	SZ			EP		1850	30.88								
HWQ	BZ			EP		1850	32.42								
ZAHL	SZ			EP		1850	34.83								
BHL	BZ			EP		1850	34.96								
DQRL	SZ			EP		1850	36.36								
RCY	SZ			EP		1850	36.70								
QRWL	SZ			EP		1850	36.83								
SHBL	SZ			EP		1850	37.63								

March 18 2021 Hour: 0:4 6.5

Agency: REL Distant

EMSC OT=00:04:06.5 36.92N 5.21E 10Km M=6.0 NORTHERN ALGERIA

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
DQRL	SZ			EP		24	9	31.85							
BHL	BZ			EP		24	9	33.10							
HWQ	BZ			EP		24	9	33.10							
QRWL	SZ			EP		24	9	32.69							
ZAHL	SZ			EP		24	9	33.53							
BEIL	SZ			EP		24	9	33.29							
SHBL	SZ			EP		24	9	34.01							
RCY	SZ			EP		24	9	34.24							

March 18 2021 Hour: 18:51 4.7

Lat: 34.04N

Lon: 35.94E

Depth: 1

Agency: REL

Local

Magnitudes: 2.7MC REL

Rms: 0.1 secs

KESROUAN REGION

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
ZAHL	SZ	21	195	EP		1851	8.02	-0.04	42						1.0
ZAHL	SN	21	195	ES		1851	10.62	0.06							1.0
HWQ	BZ	27	1	EP		1851	8.91	-0.09							1.0
BHL	BZ	31	241	EP		1851	9.71	0.08							1.0
BHL	BN	31	241	ES		1851	13.30	0.01							1.0
DQRL	SZ	51	223	EP		1851	12.91	0.07							1.0
QRWL	SZ	60	204	EP		1851	14.30	-0.00							1.0
QRWL	SN	60	204	ES		1851	21.18	-0.24							1.0
BEIL	SZ	60	22	EP		1851	14.39	0.01							1.0
RCY	SZ	61	189	EP		1851	14.62	0.09							1.0
SHBL	SZ	79	194	EP		1851	17.45	0.05							1.0

March 19 2021 Hour: 18:52 43.6

Agency: REL Distant

EMSC OT=18:52:43.6 35.69S 178.83E 183Km M=5.6 OFF E. COAST OF N. ISLAND, N.Z

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
HWQ	BZ			EP		1912	5.02								
BEIL	SZ			EP		1912	6.41								
BHL	BZ			EP		1912	5.66								
DQRL	SZ			EP		1912	7.06								
ZAHL	SZ			EP		1912	7.10								
QRWL	SZ			EP		1912	7.15								
RCY	SZ			EP		1912	7.06								
SHBL	SZ			EP		1912	7.20								

March 19 2021 Hour: 21:58 9.9

Agency: REL Regional

EMSC OT=21:58:09.9 36.89N 34.42E 2Km M=3.1 CENTRAL TURKEY

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
BEIL	SZ			EP		2158	55.91								
HWQ	BZ			EP		2158	58.08								
BHL	BZ			EP		2159	1.07								
ZAHL	SZ			EP		2159	3.01								
QRWL	SZ			EP		2159	5.77								
RCY	SZ			EP		2159	7.51								
SHBL	SZ			EP		2159	8.73								

March 20 2021 Hour: 3:9 8.0

Agency: REL Regional

EMSC OT=03:09:08.0 35.42N 27.18E 20Km 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		310	48.62								
HWQ	BZ			EP		310	50.07								
SHBL	SZ			EP		310	50.58								
ZAHL	SZ			EP		310	51.23								
RCY	SZ			EP		310	50.94								
BEIL	SZ			EP		310	51.45								

March 20 2021 Hour: 9: 9 44.1

Agency: REL Distant

EMSC OT=09:09:44.1 38.56N 141.51E 40Km M=7.0 COAST OF HONSHU, JAPAN

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
BEIL	SZ			EP		921	47.74								
HWQ	BZ			EP		921	48.73								
ZAHL	SZ			EP		921	50.55								
BHL	BZ			EP		921	50.83								
RCY	SZ			EP		921	52.26								
QRWL	SZ			EP		921	52.48								
SHBL	SZ			EP		921	52.48								

March 20 2021 Hour: 21:51 24.6

Lat: 34.50N

Lon: 33.92E

Depth: 82

Agency: REL

Regional

Magnitudes: 3.2MC REL

Rms: 0.2 secs

CYPRUS REGION

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
BHL	BZ	173	112	EP		2151	50.06	0.09							1.0
DQRL	SZ	176	120	EP		2151	50.32	0.02							1.0
HWQ	BZ	188	97	EP		2151	51.65-0.07		59						1.0
HWQ	BN	188	97	ES		2152	11.96	0.18							1.0
QRWL	SN	194	122	ES		2152	12.45-0.46								1.0
ZAHL	SZ	194	111	EP		2151	52.44-0.05								1.0
QRWL	SZ	194	122	EP		2151	52.61	0.24							1.0
BEIL	SZ	208	88	EP		2151	53.87-0.11								1.0
BEIL	SN	208	88	ES		2152	15.65-0.07								1.0
RCY	SZ	209	122	EP		2151	54.14-0.03								1.0
RCY	SN	209	122	ES		2152	16.38	0.33							1.0
SHBL	SZ	211	127	EP		2151	54.39-0.08								1.0

March 20 2021 Hour: 22:50 38.7

Agency: REL Regional

EMSC OT=22:50:38.7 35.21N 27.53E 10Km M=4.7 DODECANESE ISLANDS, GREECE

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
DQRL	SZ			EP		2252	15.59								
BHL	BZ			EP		2252	17.18								
QRWL	SZ			EP		2252	18.27								
HWQ	BZ			EP		2252	18.72								
SHBL	SZ			EP		2252	19.16								
ZAHL	SZ			EP		2252	19.22								
RCY	SZ			EP		2252	20.06								
BEIL	SZ			EP		2252	20.62								

March 20 2021 Hour: 23: 3 31.8

Agency: REL Regional

EMSC OT=23:03:31.8 35.15N 27.62E 15Km M=4.0 DODECANESE ISLANDS, GREECE

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
DQRL	SZ			EP		23	5	9.21							
BHL	BZ			EP		23	5	9.41							
QRWL	SZ			EP		23	5	10.89							
HWQ	BZ			EP		23	5	11.91							
SHBL	SZ			EP		23	5	12.14							
ZAHL	SZ			EP		23	5	11.96							
RCY	SZ			EP		23	5	12.61							
BEIL	SZ			EP		23	5	13.27							

March 21 2021 Hour: 1:50 29.1

Lat: 32.89N

Lon: 35.65E

Depth: 6

Agency: REL

Regional

Magnitudes: 2.6MC REL

Rms: 0.1 secs

GOLAN REGION

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
SHBL	SZ	52	10	EP		150	37.57	0.08	33						1.0
SHBL	SN	52	10	ES		150	43.84	0.12							1.0
RCY	SZ	70	14	EP		150	40.35	0.00							1.0
RCY	SN	70	14	ES		150	48.58-0.12								1.0
QRWL	SZ	73	2	EP		150	40.79-0.11								1.0
ZAHL	SZ	110	11	EP		150	46.72	0.02							1.0

March 25 2021 Hour: 18:59 7.3 Lat: 33.69N Lon: 35.95E Depth: 12 Agency: REL Local
Magnitudes: 2.3MC REL Rms: 0.0 secs

ZAHLE REGION

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
ZAHL	SZ	20	342	EP		1859	11.10	0.02	22						1.0
ZAHL	SN	20	342	ES		1859	13.91	-0.00							1.0
RCY	SZ	24	207	EP		1859	11.57	-0.10							1.0
RCY	SN	24	207	ES		1859	14.96	0.03							1.0
QRWL	SZ	30	238	EP		1859	12.43	-0.01							1.0
DQRL	SZ	35	273	EP		1859	13.32	-0.01							1.0
SHBL	SZ	42	207	EP		1859	14.49	0.07							1.0

March 26 2021 Hour: 10:18 52.1 Lat: 33.10N Lon: 35.66E Depth: 2 Agency: REL Regional
Magnitudes: 2.6MC REL Rms: 0.1 secs

GOLAN REGION

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
SHBL	SZ	29	16	EP		1018	57.01	0.14	35						1.0
SHBL	SN	29	16	ES		1019	0.40	0.02							1.0
RCY	SZ	48	20	EP		1018	59.66	-0.14							1.0
RCY	SN	48	20	ES		1019	5.48	-0.01							1.0
QRWL	SZ	50	2	EP		1019	0.25	0.00							1.0
DQRL	SZ	68	353	EP		1019	3.09	-0.05							1.0
HWQ	BZ	134	11	EP		1019	13.64	0.02							1.0

March 26 2021 Hour: 22: 2 16.4 Agency: REL Distant
EMSC OT=22:02:16.4 26.11N 125.02E 157Km M=5.9 NORTHEAST TAIWAN

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
BEIL	SZ			EP		2213	39.43								
HWQ	BZ			EP		2213	40.47								
ZAHL	SZ			EP		2213	42.94								
RCY	SZ			EP		2213	42.14								
QRWL	SZ			EP		2213	44.22								
DQRL	SZ			EP		2213	44.30								

March 28 2021 Hour: 0:26 57.2 Agency: REL Distant
EMSC OT=00:26:57.2 33.58N 140.34E 60Km M=5.7 IZU ISLANDS, JAPAN

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
BEIL	SZ			EP		039	10.27								
HWQ	BZ			EP		039	11.49								
ZAHL	SZ			EP		039	13.63								
RCY	SZ			EP		039	14.69								
DQRL	SZ			EP		039	15.02								
QRWL	SZ			EP		039	15.02								

March 28 2021 Hour: 10: 6 4.1 Lat: 32.76N Lon: 35.77E Depth: 0 Agency: REL Regional
Magnitudes: 3.0MC REL Rms: 0.1 secs

GOLAN REGION

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
SHBL	SZ	65	358	EP		10 6	14.55	-0.09	59						1.0
SHBL	SN	65	358	ES		10 6	22.48	0.04							1.0
RCY	SZ	82	4	EP		10 6	17.12	-0.19							1.0
QRWL	SZ	88	354	EP		10 6	18.25	-0.01							1.0
DQRL	SZ	107	350	EP		10 6	21.33	0.04							1.0
DQRL	SN	107	350	ES		10 6	34.05	0.03							1.0
ZAHL	SZ	122	5	EP		10 6	23.80	-0.01							1.0
BEIL	SZ	201	11	EP		10 6	35.38	0.19							1.0

March 29 2021 Hour: 15:15 10.6 Lat: 33.56N Lon: 34.81E Depth: 31 Agency: REL Local
 Magnitudes: 2.8MC REL
 Rms: 0.1 secs

OFFSHORE SOUTH LEBANON

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
DQRL	SZ	72	77	EP		1515	22.73	0.04							1.0
DQRL	SN	72	77	ES		1515	31.61	-0.03							1.0
QRWL	SZ	81	91	EP		1515	23.90	-0.00	39						1.0
QRWL	SN	81	91	ES		1515	33.75	0.00							1.0
BHL	BZ	87	64	EP		1515	24.72	0.07							1.0
SHBL	SZ	90	105	EP		1515	24.95	-0.15							1.0
RCY	SZ	95	94	EP		1515	25.88	0.11							1.0
ZAHL	SZ	105	72	EP		1515	27.00	0.09							1.0
HWQ	BZ	131	53	EP		1515	30.19	-0.03							1.0
BEIL	SZ	167	49	EP		1515	34.45	-0.10							1.0

Epicentral Map of Lebanon

MARCH 2021

