

Republic of Lebanon  
National Council for Scientific Research

# Provisional Seismological Bulletin

from the

## NATIONAL SEISMIC NETWORK

February

2021

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<br>(km/sec) | depth to top of layer<br>(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.

February 1 2021 Hour: 6:0 4.7

Agency: REL Regional

EMSC OT=06:00:04.7 38.94N 26.07E 16Km M=4.8 WESTERN TURKEY

| STAT | CO | DIST | AZI | PHASE | P | HRMN | SECON | TRES | CODA | AMPL | PERI | BAZ | ARES | VELO | WT |
|------|----|------|-----|-------|---|------|-------|------|------|------|------|-----|------|------|----|
| SHBL | SZ |      |     | EP    |   | 6 0  | 39.96 |      |      |      |      |     |      |      |    |
| QRWL | SZ |      |     | EP    |   | 6 0  | 41.82 |      |      |      |      |     |      |      |    |
| RCY  | SZ |      |     | EP    |   | 6 0  | 42.51 |      |      |      |      |     |      |      |    |
| DQRL | SZ |      |     | EP    |   | 6 0  | 42.38 |      |      |      |      |     |      |      |    |
| BHL  | BZ |      |     | EP    |   | 6 0  | 45.98 |      |      |      |      |     |      |      |    |

February 1 2021 Hour: 22:18 3.7

Agency: REL Regional

EMSC OT=22:18:03.7 36.11N 41.11E 10Km M=4.2 SYRIA-IRAQ BORDER REGION

| STAT | CO | DIST | AZI | PHASE | P | HRMN | SECON | TRES | CODA | AMPL | PERI | BAZ | ARES | VELO | WT |
|------|----|------|-----|-------|---|------|-------|------|------|------|------|-----|------|------|----|
| BEIL | SZ |      |     | EP    |   | 2219 | 12.67 |      |      |      |      |     |      |      |    |
| BHL  | BZ |      |     | EP    |   | 2219 | 21.04 |      |      |      |      |     |      |      |    |
| RCY  | SZ |      |     | EP    |   | 2219 | 23.43 |      |      |      |      |     |      |      |    |
| DQRL | SZ |      |     | EP    |   | 2219 | 25.42 |      |      |      |      |     |      |      |    |
| QRWL | SZ |      |     | EP    |   | 2219 | 23.63 |      |      |      |      |     |      |      |    |
| SHBL | SZ |      |     | EP    |   | 2219 | 25.51 |      |      |      |      |     |      |      |    |

February 2 2021 Hour: 0:2 43.7

Agency: REL Regional

EMSC OT=00:02:43.7 39.10N 36.10E 5Km M=4.5 CENTRAL TURKEY

| STAT | CO | DIST | AZI | PHASE | P | HRMN | SECON | TRES | CODA | AMPL | PERI | BAZ | ARES | VELO | WT |
|------|----|------|-----|-------|---|------|-------|------|------|------|------|-----|------|------|----|
| BEIL | SZ |      |     | EP    |   | 0 3  | 53.31 |      |      |      |      |     |      |      |    |
| BHL  | BZ |      |     | EP    |   | 0 4  | 2.49  |      |      |      |      |     |      |      |    |
| QRWL | SZ |      |     | EP    |   | 0 4  | 7.58  |      |      |      |      |     |      |      |    |
| RCY  | SZ |      |     | EP    |   | 0 4  | 8.67  |      |      |      |      |     |      |      |    |

February 2 2021 Hour: 23:54 28.3

Agency: REL Regional

EMSC OT=23:54:28.3 37.45N 35.90E 9Km M=3.7 CENTRAL TURKEY

| STAT | CO | DIST | AZI | PHASE | P | HRMN | SECON | TRES | CODA | AMPL | PERI | BAZ | ARES | VELO | WT |
|------|----|------|-----|-------|---|------|-------|------|------|------|------|-----|------|------|----|
| BEIL | SZ |      |     | EP    |   | 2355 | 14.80 |      |      |      |      |     |      |      |    |
| BHL  | BZ |      |     | EP    |   | 2355 | 23.04 |      |      |      |      |     |      |      |    |

February 6 2021 Hour: 0:46 50.2

Lat: 34.76N

Lon: 34.16E

Depth: 0

Agency: REL Regional

Magnitudes: 3.1MC REL

Rms: 0.1 secs

CYPRUS REGION

| STAT | CO | DIST | AZI | PHASE | P | HRMN | SECON | TRES  | CODA | AMPL | PERI | BAZ | ARES | VELO | WT  |
|------|----|------|-----|-------|---|------|-------|-------|------|------|------|-----|------|------|-----|
| BHL  | BZ | 167  | 124 | EP    |   | 047  | 16.53 | -0.09 |      |      |      |     |      |      | 1.0 |
| DQRL | SZ | 174  | 131 | EP    |   | 047  | 17.62 | -0.12 |      |      |      |     |      |      | 1.0 |
| ZAHL | SZ | 187  | 122 | EP    |   | 047  | 19.86 | 0.25  |      |      |      |     |      |      | 1.0 |
| BEIL | SZ | 187  | 97  | EP    |   | 047  | 19.37 | -0.14 | 60   |      |      |     |      |      | 1.0 |
| BEIL | SN | 187  | 97  | ES    |   | 047  | 41.26 | 0.05  |      |      |      |     |      |      | 1.0 |
| RCY  | SZ | 208  | 132 | EP    |   | 047  | 22.26 | 0.05  |      |      |      |     |      |      | 1.0 |
| RCY  | SN | 208  | 132 | ES    |   | 047  | 45.92 | -0.00 |      |      |      |     |      |      | 1.0 |
| SHBL | SZ | 214  | 136 | EP    |   | 047  | 22.91 | 0.00  |      |      |      |     |      |      | 1.0 |

February 7 2021 Hour: 4:42 16.0

Lat: 34.12N

Lon: 36.25E

Depth: 7

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  |
|------|----|------|-----|-------|---|------|-------|-------|------|------|------|-----|------|------|-----|
| ZAHL | SZ | 44   | 229 | EP    |   | 442  | 22.99 | -0.24 |      |      |      |     |      |      | 1.0 |
| BEIL | SZ | 47   | 353 | EP    |   | 442  | 23.52 | -0.19 | 56   |      |      |     |      |      | 1.0 |
| BEIL | SN | 47   | 353 | ES    |   | 442  | 29.65 | 0.21  |      |      |      |     |      |      | 1.0 |
| BHL  | BZ | 60   | 247 | EP    |   | 442  | 25.66 | -0.04 |      |      |      |     |      |      | 1.0 |
| DQRL | SZ | 78   | 234 | EP    |   | 442  | 28.53 | -0.02 |      |      |      |     |      |      | 1.0 |
| RCY  | SZ | 79   | 209 | EP    |   | 442  | 28.71 | -0.05 |      |      |      |     |      |      | 1.0 |
| RCY  | SN | 79   | 209 | ES    |   | 442  | 38.42 | 0.20  |      |      |      |     |      |      | 1.0 |
| QRWL | SZ | 82   | 220 | EP    |   | 442  | 29.30 | 0.02  |      |      |      |     |      |      | 1.0 |
| SHBL | SZ | 97   | 209 | EP    |   | 442  | 31.82 | 0.09  |      |      |      |     |      |      | 1.0 |

February 7 2021 Hour: 12: 5 58.0 Lat: 33.45N Lon: 35.42E Depth: 1 Agency: REL Local  
 Magnitudes: 2.4MC REL Rms: 0.1 secs

**NABATIYE REGION**

| STAT | CO | DIST | AZI | PHASE | P | HRMN | SECON | TRES  | CODA | AMPL | PERI | BAZ | ARES | VELO | WT  |
|------|----|------|-----|-------|---|------|-------|-------|------|------|------|-----|------|------|-----|
| QRWL | SZ | 27   | 66  | EP    |   | 12 6 | 2.31  | -0.04 | 26   |      |      |     |      |      | 1.0 |
| QRWL | SN | 27   | 66  | ES    |   | 12 6 | 5.44  | -0.12 |      |      |      |     |      |      | 1.0 |
| DQRL | SZ | 32   | 26  | EP    |   | 12 6 | 3.13  | -0.02 |      |      |      |     |      |      | 1.0 |
| DQRL | SN | 32   | 26  | ES    |   | 12 6 | 7.13  | 0.18  |      |      |      |     |      |      | 1.0 |
| SHBL | SZ | 32   | 110 | EP    |   | 12 6 | 3.30  | 0.07  |      |      |      |     |      |      | 1.0 |
| RCY  | SZ | 39   | 82  | EP    |   | 12 6 | 4.42  | 0.09  |      |      |      |     |      |      | 1.0 |
| BHL  | BZ | 55   | 23  | EP    |   | 12 6 | 6.71  | -0.18 |      |      |      |     |      |      | 1.0 |
| BEIL | SZ | 140  | 30  | EP    |   | 12 6 | 20.70 | 0.24  |      |      |      |     |      |      | 0.2 |

February 7 2021 Hour: 16:43 8.2

Agency: REL Regional

**EMSC OT=16:43:08.2 34.92N 32.59E 23Km M=2.5 CYPRUS REGION**

| STAT | CO | DIST | AZI | PHASE | P | HRMN | SECON | TRES | CODA | AMPL | PERI | BAZ | ARES | VELO | WT |
|------|----|------|-----|-------|---|------|-------|------|------|------|------|-----|------|------|----|
| QRWL | SZ |      |     | EP    |   | 1643 | 51.82 |      |      |      |      |     |      |      |    |
| BEIL | SZ |      |     | EP    |   | 1643 | 53.36 |      |      |      |      |     |      |      |    |
| RCY  | SZ |      |     | EP    |   | 1643 | 53.72 |      |      |      |      |     |      |      |    |
| SHBL | SZ |      |     | EP    |   | 1643 | 54.14 |      |      |      |      |     |      |      |    |

February 7 2021 Hour: 22: 1 17.8

Agency: REL Regional

**EMSC OT=22:01:17.8 39.11N 36.07E 17Km M=4.3 CENTRAL TURKEY**

| STAT | CO | DIST | AZI | PHASE | P | HRMN | SECON | TRES | CODA | AMPL | PERI | BAZ | ARES | VELO | WT |
|------|----|------|-----|-------|---|------|-------|------|------|------|------|-----|------|------|----|
| BEIL | SZ |      |     | EP    |   | 22 2 | 27.13 |      |      |      |      |     |      |      |    |
| BHL  | BZ |      |     | EP    |   | 22 2 | 34.29 |      |      |      |      |     |      |      |    |
| DQRL | SZ |      |     | EP    |   | 22 2 | 38.08 |      |      |      |      |     |      |      |    |
| RCY  | SZ |      |     | EP    |   | 22 2 | 39.47 |      |      |      |      |     |      |      |    |
| SHBL | SZ |      |     | EP    |   | 22 2 | 43.15 |      |      |      |      |     |      |      |    |

February 8 2021 Hour: 0: 0 43.1

Agency: REL Distant

**EMSC OT=00:00:43.1 5.71N 127.10E 60Km M=5.6 PHILIPPINE ISLANDS**

| STAT | CO | DIST | AZI | PHASE | P | HRMN | SECON | TRES | CODA | AMPL | PERI | BAZ | ARES | VELO | WT |
|------|----|------|-----|-------|---|------|-------|------|------|------|------|-----|------|------|----|
| BEIL | SZ |      |     | EP    |   | 2413 | 24.67 |      |      |      |      |     |      |      |    |
| RCY  | SZ |      |     | EP    |   | 2413 | 26.84 |      |      |      |      |     |      |      |    |
| BHL  | BZ |      |     | EP    |   | 2413 | 26.97 |      |      |      |      |     |      |      |    |
| SHBL | SZ |      |     | EP    |   | 2413 | 27.16 |      |      |      |      |     |      |      |    |
| QRWL | SZ |      |     | EP    |   | 2413 | 27.29 |      |      |      |      |     |      |      |    |
| DQRL | SZ |      |     | EP    |   | 2413 | 27.29 |      |      |      |      |     |      |      |    |

February 8 2021 Hour: 1:25 19.5

Agency: REL Regional

**EMSC OT=01:25:19.5 36.37N 24.69E 93Km M=3.8 SOUTHERN GREECE**

| STAT | CO | DIST | AZI | PHASE | P | HRMN | SECON | TRES | CODA | AMPL | PERI | BAZ | ARES | VELO | WT |
|------|----|------|-----|-------|---|------|-------|------|------|------|------|-----|------|------|----|
| DQRL | SZ |      |     | EP    |   | 127  | 26.49 |      |      |      |      |     |      |      |    |
| QRWL | SZ |      |     | EP    |   | 127  | 28.72 |      |      |      |      |     |      |      |    |
| SHBL | SZ |      |     | EP    |   | 127  | 30.12 |      |      |      |      |     |      |      |    |
| BEIL | SZ |      |     | EP    |   | 127  | 30.27 |      |      |      |      |     |      |      |    |
| RCY  | SZ |      |     | EP    |   | 127  | 30.44 |      |      |      |      |     |      |      |    |

February 8 2021 Hour: 8: 3 2.5

Agency: REL Regional

**EMSC OT=08:03:02.5 34.94N 32.69E 52Km M=2.5 CYPRUS REGION**

| STAT | CO | DIST | AZI | PHASE | P | HRMN | SECON | TRES | CODA | AMPL | PERI | BAZ | ARES | VELO | WT |
|------|----|------|-----|-------|---|------|-------|------|------|------|------|-----|------|------|----|
| DQRL | SZ |      |     | EP    |   | 8 3  | 41.50 |      |      |      |      |     |      |      |    |
| BEIL | SZ |      |     | EP    |   | 8 3  | 43.97 |      |      |      |      |     |      |      |    |
| QRWL | SZ |      |     | EP    |   | 8 3  | 44.16 |      |      |      |      |     |      |      |    |
| RCY  | SZ |      |     | EP    |   | 8 3  | 46.16 |      |      |      |      |     |      |      |    |
| SHBL | SZ |      |     | EP    |   | 8 3  | 46.65 |      |      |      |      |     |      |      |    |

February 8 2021 Hour: 8: 6 18.6 Agency: REL Distant  
**EMSC OT=08:06:18.6 30.29S 179.41W 333Km M=5.4 KERMADEC ISLANDS**  

| STAT | CO | DIST | AZI | PHASE | P | HRMN | SECON | TRES | CODA | AMPL | PERI | BAZ | ARES | VELO | WT |
|------|----|------|-----|-------|---|------|-------|------|------|------|------|-----|------|------|----|
| BEIL | SZ |      |     | EP    |   | 825  | 29.40 |      |      |      |      |     |      |      |    |
| BHL  | BZ |      |     | EP    |   | 825  | 30.32 |      |      |      |      |     |      |      |    |
| QRWL | SZ |      |     | EP    |   | 825  | 30.81 |      |      |      |      |     |      |      |    |
| DQRL | SZ |      |     | EP    |   | 825  | 30.84 |      |      |      |      |     |      |      |    |
| SHBL | SZ |      |     | EP    |   | 825  | 30.75 |      |      |      |      |     |      |      |    |

February 10 2021 Hour: 12:52 28.5 Agency: REL Distant  
**EMSC OT=12:52:28.5 5.62S 101.73E 10Km M=6.2 SOUTHWEST OF SUMATRA**  

| STAT | CO | DIST | AZI | PHASE | P | HRMN | SECON | TRES | CODA | AMPL | PERI | BAZ | ARES | VELO | WT |
|------|----|------|-----|-------|---|------|-------|------|------|------|------|-----|------|------|----|
| BEIL | SZ |      |     | EP    |   | 13 4 | 0.73  |      |      |      |      |     |      |      |    |
| RCY  | SZ |      |     | EP    |   | 13 4 | 1.62  |      |      |      |      |     |      |      |    |
| QRWL | SZ |      |     | EP    |   | 13 4 | 2.91  |      |      |      |      |     |      |      |    |
| BHL  | BZ |      |     | EP    |   | 13 4 | 2.61  |      |      |      |      |     |      |      |    |

February 11 2021 Hour: 7:24 13.4 Lat: 33.56N Lon: 35.54E Depth: 5 Agency: REL Local  
**Magnitudes: 2.7MC REL Rms: 0.1 secs**  
**JEZZINE REGION**  

| STAT | CO | DIST | AZI | PHASE | P | HRMN | SECON | TRES  | CODA | AMPL | PERI | BAZ | ARES | VELO | WT  |
|------|----|------|-----|-------|---|------|-------|-------|------|------|------|-----|------|------|-----|
| QRWL | SZ | 13   | 96  | EP    |   | 724  | 15.60 | -0.09 | 40   |      |      |     |      |      | 1.0 |
| QRWL | SN | 13   | 96  | ES    |   | 724  | 17.43 | 0.00  |      |      |      |     |      |      | 1.0 |
| DQRL | SZ | 16   | 10  | EP    |   | 724  | 16.21 | 0.05  |      |      |      |     |      |      | 1.0 |
| DQRL | SN | 16   | 10  | ES    |   | 724  | 18.25 | 0.02  |      |      |      |     |      |      | 1.0 |
| RCY  | SZ | 28   | 105 | EP    |   | 724  | 18.08 | 0.04  |      |      |      |     |      |      | 1.0 |
| SHBL | SZ | 30   | 141 | EP    |   | 724  | 18.36 | 0.02  |      |      |      |     |      |      | 1.0 |
| BHL  | BZ | 40   | 15  | EP    |   | 724  | 19.70 | -0.10 |      |      |      |     |      |      | 1.0 |
| ZAHL | SZ | 46   | 44  | EP    |   | 724  | 20.87 | 0.05  |      |      |      |     |      |      | 1.0 |

February 11 2021 Hour: 22:10 39.0 Agency: REL Regional  
**EMSC OT=22:10:39.0 34.71N 45.53E 10Km M=4.9 IRAN-IRAQ BORDER REGION**  

| STAT | CO | DIST | AZI | PHASE | P | HRMN | SECON | TRES | CODA | AMPL | PERI | BAZ | ARES | VELO | WT |
|------|----|------|-----|-------|---|------|-------|------|------|------|------|-----|------|------|----|
| BEIL | SZ |      |     | EP    |   | 2212 | 25.12 |      |      |      |      |     |      |      |    |
| RCY  | SZ |      |     | EP    |   | 2212 | 32.15 |      |      |      |      |     |      |      |    |
| SHBL | SZ |      |     | EP    |   | 2212 | 33.28 |      |      |      |      |     |      |      |    |
| QRWL | SZ |      |     | EP    |   | 2212 | 33.33 |      |      |      |      |     |      |      |    |
| DQRL | SZ |      |     | EP    |   | 2212 | 34.88 |      |      |      |      |     |      |      |    |

February 12 2021 Hour: 17: 1 35.2 Agency: REL Distant  
**EMSC OT=17:01:35.2 38.13N 73.57E 92Km M=5.9 TAJIKISTAN**  

| STAT | CO | DIST | AZI | PHASE | P | HRMN | SECON | TRES | CODA | AMPL | PERI | BAZ | ARES | VELO | WT |
|------|----|------|-----|-------|---|------|-------|------|------|------|------|-----|------|------|----|
| BEIL | SZ |      |     | EP    |   | 17 7 | 38.41 |      |      |      |      |     |      |      |    |
| RCY  | SZ |      |     | EP    |   | 17 7 | 44.28 |      |      |      |      |     |      |      |    |
| BHL  | BZ |      |     | EP    |   | 17 7 | 44.22 |      |      |      |      |     |      |      |    |
| QRWL | SZ |      |     | EP    |   | 17 7 | 45.20 |      |      |      |      |     |      |      |    |
| SHBL | SZ |      |     | EP    |   | 17 7 | 45.32 |      |      |      |      |     |      |      |    |
| DQRL | SZ |      |     | EP    |   | 17 7 | 45.57 |      |      |      |      |     |      |      |    |

February 13 2021 Hour: 14: 7 51.5 Agency: REL Distant  
**EMSC OT=14:07:51.5 37.70N 141.72E 60Km M=7.1 COAST OF HONSHU, JAPAN**  

| STAT | CO | DIST | AZI | PHASE | P | HRMN | SECON | TRES | CODA | AMPL | PERI | BAZ | ARES | VELO | WT |
|------|----|------|-----|-------|---|------|-------|------|------|------|------|-----|------|------|----|
| BEIL | SZ |      |     | EP    |   | 1419 | 56.25 |      |      |      |      |     |      |      |    |
| BHL  | BZ |      |     | EP    |   | 1419 | 59.85 |      |      |      |      |     |      |      |    |
| RCY  | SZ |      |     | EP    |   | 1420 | 0.86  |      |      |      |      |     |      |      |    |
| DQRL | SZ |      |     | EP    |   | 1420 | 1.16  |      |      |      |      |     |      |      |    |
| QRWL | SZ |      |     | EP    |   | 1420 | 1.10  |      |      |      |      |     |      |      |    |
| SHBL | SZ |      |     | EP    |   | 1420 | 1.81  |      |      |      |      |     |      |      |    |

**February 14 2021 Hour: 21:0 24.7 Lat: 34.96N Lon: 33.88E Depth: 18 Agency: REL Regional**  
**Magnitudes: 3.3MC REL Rms: 0.0 secs**

**CYPRUS REGION**

| STAT | CO | DIST | AZI | PHASE | P | HRMN | SECON | TRES  | CODA | AMPL | PERI | BAZ | ARES | VELO | WT  |
|------|----|------|-----|-------|---|------|-------|-------|------|------|------|-----|------|------|-----|
| BHL  | BZ | 201  | 125 | EP    |   | 21 0 | 54.03 | 0.03  |      |      |      |     |      |      | 0.2 |
| DQRL | SZ | 209  | 131 | EP    |   | 21 0 | 54.85 | -0.12 |      |      |      |     |      |      | 0.2 |
| BEIL | SZ | 216  | 102 | EP    |   | 21 0 | 55.90 | 0.04  | 72   |      |      |     |      |      | 1.0 |
| BEIL | SN | 216  | 102 | ES    |   | 21 1 | 18.88 | -0.02 |      |      |      |     |      |      | 1.0 |
| QRWL | SZ | 228  | 133 | EP    |   | 21 0 | 57.49 | 0.10  |      |      |      |     |      |      | 0.2 |
| RCY  | SZ | 243  | 131 | EP    |   | 21 0 | 59.18 | -0.04 |      |      |      |     |      |      | 1.0 |
| RCY  | SN | 243  | 131 | ES    |   | 21 1 | 24.77 | 0.02  |      |      |      |     |      |      | 1.0 |
| SHBL | SZ | 248  | 136 | EP    |   | 21 0 | 59.90 | -0.00 |      |      |      |     |      |      | 1.0 |

**February 16 2021 Hour: 18:4 20.1 Lat: 34.15N Lon: 34.53E Depth: 4 Agency: REL Local**  
**Magnitudes: 3.3MC REL Rms: 0.4 secs**

**OFFSHORE CENTRAL LEBANON**

| STAT | CO | DIST | AZI | PHASE | P | HRMN | SECON | TRES  | CODA | AMPL | PERI | BAZ | ARES | VELO | WT  |
|------|----|------|-----|-------|---|------|-------|-------|------|------|------|-----|------|------|-----|
| BHL  | BZ | 108  | 105 | EP    |   | 18 4 | 37.58 | 0.09  | 86   |      |      |     |      |      | 1.0 |
| DQRL | SZ | 108  | 117 | EP    |   | 18 4 | 37.41 | -0.21 |      |      |      |     |      |      | 1.0 |
| QRWL | SZ | 126  | 122 | EP    |   | 18 4 | 40.50 | 0.18  |      |      |      |     |      |      | 1.0 |
| QRWL | SN | 126  | 122 | ES    |   | 18 4 | 55.10 | -0.18 |      |      |      |     |      |      | 1.0 |
| ZAHL | SZ | 130  | 104 | EP    |   | 18 4 | 40.85 | 0.01  |      |      |      |     |      |      | 1.0 |
| RCY  | SZ | 141  | 121 | EP    |   | 18 4 | 42.76 | 0.18  | 70   |      |      |     |      |      | 1.0 |
| RCY  | SN | 141  | 121 | ES    |   | 18 4 | 59.39 | 0.19  |      |      |      |     |      |      | 1.0 |
| SHBL | SZ | 144  | 128 | EP    |   | 18 4 | 43.03 | 0.09  |      |      |      |     |      |      | 1.0 |
| SHBL | SN | 144  | 128 | ES    |   | 18 4 | 59.41 | -0.43 |      |      |      |     |      |      | 1.0 |

**February 16 2021 Hour: 21:57 1.3 Lat: 34.50N Lon: 34.19E Depth: 0 Agency: REL Regional**  
**Magnitudes: 3.1MC 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 | 150  | 116 | EP    |   | 2157 | 25.10 | -0.17 | 59   |      |      |     |      |      | 1.0 |
| BHL  | BN | 150  | 116 | ES    |   | 2157 | 42.92 | -0.10 |      |      |      |     |      |      | 1.0 |
| DQRL | SZ | 155  | 124 | EP    |   | 2157 | 25.78 | -0.18 |      |      |      |     |      |      | 1.0 |
| ZAHL | SZ | 172  | 114 | EP    |   | 2157 | 28.55 | 0.10  |      |      |      |     |      |      | 1.0 |
| QRWL | SZ | 174  | 127 | EP    |   | 2157 | 28.77 | 0.05  |      |      |      |     |      |      | 1.0 |
| QRWL | SN | 174  | 127 | ES    |   | 2157 | 49.12 | 0.11  |      |      |      |     |      |      | 1.0 |
| BEIL | SZ | 183  | 88  | EP    |   | 2157 | 30.17 | 0.11  |      |      |      |     |      |      | 1.0 |
| RCY  | SZ | 188  | 126 | EP    |   | 2157 | 30.97 | 0.12  |      |      |      |     |      |      | 1.0 |
| RCY  | SN | 188  | 126 | ES    |   | 2157 | 52.77 | 0.05  |      |      |      |     |      |      | 1.0 |
| SHBL | SZ | 192  | 131 | EP    |   | 2157 | 31.20 | -0.13 |      |      |      |     |      |      | 1.0 |

**February 17 2021 Hour: 18:22 53.1 Lat: 33.29N Lon: 35.41E Depth: 1 Agency: REL Local**  
**Magnitudes: 2.8MC REL Rms: 0.1 secs**

**SOUR REGION**

| STAT | CO | DIST | AZI | PHASE | P | HRMN | SECON | TRES  | CODA | AMPL | PERI | BAZ | ARES | VELO | WT  |
|------|----|------|-----|-------|---|------|-------|-------|------|------|------|-----|------|------|-----|
| SHBL | SZ | 31   | 79  | EP    |   | 1822 | 58.13 | -0.02 |      |      |      |     |      |      | 1.0 |
| SHBL | SN | 31   | 79  | ES    |   | 1823 | 1.95  | 0.04  |      |      |      |     |      |      | 1.0 |
| QRWL | SZ | 38   | 42  | EP    |   | 1822 | 58.94 | -0.19 | 42   |      |      |     |      |      | 1.0 |
| RCY  | SZ | 45   | 60  | EP    |   | 1823 | 0.36  | -0.01 |      |      |      |     |      |      | 1.0 |
| RCY  | SN | 45   | 60  | ES    |   | 1823 | 5.79  | 0.01  |      |      |      |     |      |      | 1.0 |
| DQRL | SZ | 48   | 18  | EP    |   | 1823 | 0.85  | 0.07  |      |      |      |     |      |      | 1.0 |
| BHL  | BZ | 71   | 18  | EP    |   | 1823 | 4.53  | -0.01 |      |      |      |     |      |      | 1.0 |
| ZAHL | SZ | 76   | 35  | EP    |   | 1823 | 5.49  | 0.12  |      |      |      |     |      |      | 1.0 |
| BEIL | SZ | 156  | 27  | EP    |   | 1823 | 17.73 | 0.00  |      |      |      |     |      |      | 0.2 |

**February 17 2021 Hour: 18:35 35.8**

**EMSC OT=18:35:35.8 30.87N 51.45E 10Km M=5.4 SOUTHERN IRAN**

**Agency: REL Distant**

| STAT | CO | DIST | AZI | PHASE | P | HRMN | SECON | TRES | CODA | AMPL | PERI | BAZ | ARES | VELO | WT |
|------|----|------|-----|-------|---|------|-------|------|------|------|------|-----|------|------|----|
| BEIL | SZ |      |     | EP    |   | 1838 | 45.80 |      |      |      |      |     |      |      |    |
| RCY  | SZ |      |     | EP    |   | 1838 | 46.12 |      |      |      |      |     |      |      |    |
| SHBL | SZ |      |     | EP    |   | 1838 | 48.91 |      |      |      |      |     |      |      |    |
| QRWL | SZ |      |     | EP    |   | 1838 | 48.91 |      |      |      |      |     |      |      |    |



|      |    |    |      |       |
|------|----|----|------|-------|
| BHL  | BZ | EP | 1838 | 50.11 |
| DQRL | SZ | EP | 1838 | 51.38 |

**February 18 2021 Hour: 15:30 51.8**

**Agency: REL Distant**

**EMSC OT=15:30:51.8 14.97S 176.58W 10Km M=6.1 FIJI REGION**

| STAT | CO | DIST | AZI | PHASE | P | HRMN | SECON | TRES | CODA | AMPL | PERI | BAZ | ARES | VELO | WT |
|------|----|------|-----|-------|---|------|-------|------|------|------|------|-----|------|------|----|
| BEIL | SZ |      |     | EP    |   | 1550 | 29.58 |      |      |      |      |     |      |      |    |
| BHL  | BZ |      |     | EP    |   | 1550 | 29.68 |      |      |      |      |     |      |      |    |
| RCY  | SZ |      |     | EP    |   | 1550 | 30.99 |      |      |      |      |     |      |      |    |
| DQRL | SZ |      |     | EP    |   | 1550 | 31.50 |      |      |      |      |     |      |      |    |
| QRWL | SZ |      |     | EP    |   | 1550 | 29.47 |      |      |      |      |     |      |      |    |
| SHBL | SZ |      |     | EP    |   | 1550 | 31.40 |      |      |      |      |     |      |      |    |

**February 19 2021 Hour: 19:28 20.2 Lat: 33.51N Lon: 35.65E Depth: 9**

**Agency: REL Local**

**Magnitudes: 2.6MC 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 | 5    | 42  | EP    |   | 1928 | 21.97 | -0.07 | 37   |      |      |     |      |      | 1.0 |
| QRWL | SN | 5    | 42  | ES    |   | 1928 | 23.42 | 0.05  |      |      |      |     |      |      | 1.0 |
| RCY  | SZ | 18   | 96  | EP    |   | 1928 | 23.51 | -0.05 |      |      |      |     |      |      | 1.0 |
| RCY  | SN | 18   | 96  | ES    |   | 1928 | 26.02 | 0.00  |      |      |      |     |      |      | 1.0 |
| SHBL | SZ | 21   | 154 | EP    |   | 1928 | 23.97 | 0.02  |      |      |      |     |      |      | 1.0 |
| DQRL | SZ | 22   | 342 | EP    |   | 1928 | 24.21 | 0.00  |      |      |      |     |      |      | 1.0 |
| DQRL | SN | 22   | 342 | ES    |   | 1928 | 27.10 | -0.04 |      |      |      |     |      |      | 1.0 |
| SAIL | SZ | 24   | 287 | EP    |   | 1928 | 24.75 | 0.40  |      |      |      |     |      |      | 0.2 |
| BHL  | BZ | 43   | 1   | EP    |   | 1928 | 27.42 | -0.00 |      |      |      |     |      |      | 1.0 |
| ZAHL | SZ | 44   | 30  | EP    |   | 1928 | 27.63 | 0.06  |      |      |      |     |      |      | 1.0 |

**February 20 2021 Hour: 17:0 45.0**

**Agency: REL Regional**

**EMSC OT=17:00:45.0 35.87N 27.96E 2Km M=4.0 DODECANESE ISLANDS**

| STAT | CO | DIST | AZI | PHASE | P | HRMN | SECON | TRES | CODA | AMPL | PERI | BAZ | ARES | VELO | WT |
|------|----|------|-----|-------|---|------|-------|------|------|------|------|-----|------|------|----|
| BHL  | BZ |      |     | EP    |   | 17 2 | 18.97 |      |      |      |      |     |      |      |    |
| DQRL | SZ |      |     | EP    |   | 17 2 | 19.41 |      |      |      |      |     |      |      |    |
| QRWL | SZ |      |     | EP    |   | 17 2 | 22.33 |      |      |      |      |     |      |      |    |
| BEIL | SZ |      |     | EP    |   | 17 2 | 22.80 |      |      |      |      |     |      |      |    |
| RCY  | SZ |      |     | EP    |   | 17 2 | 23.58 |      |      |      |      |     |      |      |    |
| SHBL | SZ |      |     | EP    |   | 17 2 | 23.43 |      |      |      |      |     |      |      |    |

**February 21 2021 Hour: 14:54 36.1 Lat: 33.34N Lon: 35.76E Depth: 12**

**Agency: REL Local**

**Magnitudes: 3.2MC REL**

**Rms: 0.1 secs**

**HASBAYA REGION**

| STAT | CO | DIST | AZI | PHASE | P | HRMN | SECON | TRES  | CODA | AMPL | PERI | BAZ | ARES | VELO | WT  |
|------|----|------|-----|-------|---|------|-------|-------|------|------|------|-----|------|------|-----|
| SHBL | SZ | 2    | 306 | EP    |   | 1454 | 38.47 | 0.05  | 79   |      |      |     |      |      | 1.0 |
| RCY  | SZ | 19   | 20  | EP    |   | 1454 | 39.91 | -0.03 |      |      |      |     |      |      | 1.0 |
| RCY  | SN | 19   | 20  | ES    |   | 1454 | 42.68 | -0.07 |      |      |      |     |      |      | 1.0 |
| QRWL | SZ | 25   | 342 | EP    |   | 1454 | 40.72 | 0.05  |      |      |      |     |      |      | 1.0 |
| QRWL | SN | 25   | 342 | ES    |   | 1454 | 43.98 | -0.04 |      |      |      |     |      |      | 1.0 |
| SAIL | SZ | 43   | 308 | EP    |   | 1454 | 43.33 | -0.03 |      |      |      |     |      |      | 1.0 |
| DQRL | SZ | 45   | 336 | EP    |   | 1454 | 43.82 | 0.13  |      |      |      |     |      |      | 1.0 |
| ZAHL | SZ | 59   | 11  | EP    |   | 1454 | 45.97 | 0.06  |      |      |      |     |      |      | 1.0 |
| BHL  | BZ | 64   | 351 | EP    |   | 1454 | 46.52 | -0.10 |      |      |      |     |      |      | 1.0 |
| BEIL | SZ | 139  | 16  | EP    |   | 1454 | 57.73 | 0.04  |      |      |      |     |      |      | 1.0 |

**February 21 2021 Hour: 21:42 2.3 Lat: 33.30N Lon: 35.42E Depth: 0**

**Agency: REL Local**

**Magnitudes: 2.7MC REL**

**Rms: 0.2 secs**

**BENT JBEIL REGION**

| STAT | CO | DIST | AZI | PHASE | P | HRMN | SECON | TRES  | CODA | AMPL | PERI | BAZ | ARES | VELO | WT  |
|------|----|------|-----|-------|---|------|-------|-------|------|------|------|-----|------|------|-----|
| SHBL | SZ | 30   | 80  | EP    |   | 2142 | 7.18  | 0.03  | 39   |      |      |     |      |      | 1.0 |
| SHBL | SN | 30   | 80  | ES    |   | 2142 | 10.78 | 0.01  |      |      |      |     |      |      | 1.0 |
| SAIL | SZ | 31   | 356 | EP    |   | 2142 | 7.22  | 0.01  |      |      |      |     |      |      | 1.0 |
| QRWL | SZ | 37   | 41  | EP    |   | 2142 | 7.98  | -0.18 |      |      |      |     |      |      | 1.0 |
| QRWL | SN | 37   | 41  | ES    |   | 2142 | 12.53 | 0.01  |      |      |      |     |      |      | 1.0 |
| RCY  | SZ | 44   | 60  | EP    |   | 2142 | 9.35  | -0.03 |      |      |      |     |      |      | 1.0 |
| RCY  | SN | 44   | 60  | ES    |   | 2142 | 14.57 | -0.08 |      |      |      |     |      |      | 1.0 |

|      |    |    |    |    |      |            |     |
|------|----|----|----|----|------|------------|-----|
| DQRL | SZ | 47 | 17 | EP | 2142 | 9.75-0.11  | 1.0 |
| BHL  | BZ | 70 | 18 | EP | 2142 | 13.50-0.12 | 1.0 |
| ZAHL | SZ | 75 | 35 | EP | 2142 | 14.89 0.47 | 1.0 |

**February 24 2021 Hour: 7:58 53.0 Lat: 33.60N Lon: 35.61E Depth: 3 Agency: REL Local**  
**Magnitudes: 2.6MC REL Rms: 0.1 secs**

**CHOUF REGION**

| STAT | CO | DIST | AZI | PHASE | P | HRMN | SECON      | TRES | CODA | AMPL | PERI | BAZ | ARES | VELO | WT  |
|------|----|------|-----|-------|---|------|------------|------|------|------|------|-----|------|------|-----|
| QRWL | SZ | 9    | 132 | EP    |   | 758  | 54.59-0.06 |      | 35   |      |      |     |      |      | 1.0 |
| QRWL | SN | 9    | 132 | ES    |   | 758  | 55.92 0.03 |      |      |      |      |     |      |      | 1.0 |
| DQRL | SZ | 12   | 343 | EP    |   | 758  | 55.03-0.02 |      |      |      |      |     |      |      | 1.0 |
| DQRL | SN | 12   | 343 | ES    |   | 758  | 56.58-0.01 |      |      |      |      |     |      |      | 1.0 |
| SAIL | SZ | 19   | 261 | EP    |   | 758  | 56.22 0.04 |      |      |      |      |     |      |      | 1.0 |
| RCY  | SZ | 24   | 119 | EP    |   | 758  | 56.92-0.05 |      |      |      |      |     |      |      | 1.0 |
| RCY  | SN | 24   | 119 | ES    |   | 758  | 59.98 0.05 |      |      |      |      |     |      |      | 1.0 |
| SHBL | SZ | 31   | 156 | EP    |   | 758  | 58.03-0.01 |      |      |      |      |     |      |      | 1.0 |
| BHL  | BZ | 34   | 7   | EP    |   | 758  | 58.48 0.01 |      |      |      |      |     |      |      | 1.0 |
| HWQ  | BZ | 81   | 23  | EP    |   | 759  | 6.48 0.39  |      |      |      |      |     |      |      | 0.2 |

**February 24 2021 Hour: 9:43 3.8 Lat: 33.62N Lon: 35.65E Depth: 1 Agency: REL Local**  
**Magnitudes: 2.7MC REL Rms: 0.1 secs**

**CHOUF REGION**

| STAT | CO | DIST | AZI | PHASE | P | HRMN | SECON      | TRES | CODA | AMPL | PERI | BAZ | ARES | VELO | WT  |
|------|----|------|-----|-------|---|------|------------|------|------|------|------|-----|------|------|-----|
| QRWL | SZ | 9    | 159 | EP    |   | 943  | 5.21-0.06  |      | 40   |      |      |     |      |      | 1.0 |
| QRWL | SN | 9    | 159 | ES    |   | 943  | 6.39 0.00  |      |      |      |      |     |      |      | 1.0 |
| DQRL | SZ | 12   | 322 | EP    |   | 943  | 5.61-0.04  |      |      |      |      |     |      |      | 1.0 |
| DQRL | SN | 12   | 322 | ES    |   | 943  | 7.08 0.02  |      |      |      |      |     |      |      | 1.0 |
| RCY  | SZ | 23   | 129 | EP    |   | 943  | 7.50 0.08  |      |      |      |      |     |      |      | 1.0 |
| SAIL | SZ | 23   | 257 | EP    |   | 943  | 7.58 0.04  |      |      |      |      |     |      |      | 1.0 |
| BHL  | BZ | 31   | 1   | EP    |   | 943  | 8.66-0.12  |      |      |      |      |     |      |      | 0.2 |
| SHBL | SZ | 32   | 164 | EP    |   | 943  | 8.89-0.03  |      |      |      |      |     |      |      | 1.0 |
| HWQ  | BZ | 78   | 21  | EP    |   | 943  | 16.21-0.07 |      |      |      |      |     |      |      | 0.2 |

**February 27 2021 Hour: 20:14 13.2 Agency: REL Distant**  
**EMSC OT=20:14:13.2 24.56S 174.92W 20Km M=5.3 SOUTH OF TONGA**

| STAT | CO | DIST | AZI | PHASE | P | HRMN | SECON | TRES | CODA | AMPL | PERI | BAZ | ARES | VELO | WT |
|------|----|------|-----|-------|---|------|-------|------|------|------|------|-----|------|------|----|
| BEIL | SZ |      |     | EP    |   | 2034 | 11.71 |      |      |      |      |     |      |      |    |
| HWQ  | BZ |      |     | EP    |   | 2034 | 11.36 |      |      |      |      |     |      |      |    |
| BHL  | BZ |      |     | EP    |   | 2034 | 12.56 |      |      |      |      |     |      |      |    |
| RCY  | SZ |      |     | EP    |   | 2034 | 13.10 |      |      |      |      |     |      |      |    |
| DQRL | SZ |      |     | EP    |   | 2034 | 13.50 |      |      |      |      |     |      |      |    |
| QRWL | SZ |      |     | EP    |   | 2034 | 13.29 |      |      |      |      |     |      |      |    |
| SHBL | SZ |      |     | EP    |   | 2034 | 13.43 |      |      |      |      |     |      |      |    |

**February 28 2021 Hour: 17:22 42.5 Agency: REL Regional**  
**EMSC OT=17:22:42.5 38.30N 38.74E 10Km M=3.6 EASTERN TURKEY**

| STAT | CO | DIST | AZI | PHASE | P | HRMN | SECON | TRES | CODA | AMPL | PERI | BAZ | ARES | VELO | WT |
|------|----|------|-----|-------|---|------|-------|------|------|------|------|-----|------|------|----|
| BEIL | SZ |      |     | EP    |   | 1723 | 48.37 |      |      |      |      |     |      |      |    |
| HWQ  | BZ |      |     | EP    |   | 1723 | 53.30 |      |      |      |      |     |      |      |    |
| BHL  | BZ |      |     | EP    |   | 1723 | 59.48 |      |      |      |      |     |      |      |    |
| DQRL | SZ |      |     | EP    |   | 1724 | 1.85  |      |      |      |      |     |      |      |    |
| QRWL | SZ |      |     | EP    |   | 1724 | 4.12  |      |      |      |      |     |      |      |    |
| RCY  | SZ |      |     | EP    |   | 1724 | 3.84  |      |      |      |      |     |      |      |    |
| SHBL | SZ |      |     | EP    |   | 1724 | 5.81  |      |      |      |      |     |      |      |    |

# Epicentral Map of Lebanon

## FEBRUARY 2021

