

Republic of Lebanon
National Council for Scientific Research

Provisional Seismological Bulletin

from the

NATIONAL SEISMIC NETWORK

July

2017

Prepared by
The National Centre for Geophysical Research
Bhannes

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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 V_p/V_s velocity ratio used in both layered models above is 1.74.

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

STATIONS USED

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

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

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

REGIONAL AND DISTANT EARTHQUAKES

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

MACROSEISMIC DATA

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

MONTHLY EPICENTER MAPS

Maps will be found on the last page.

ELECTRONIC PUBLICATION

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

REFERENCES

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

Abbreviations:

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

LAT: Latitude of epicenter

LON: Longitude of epicenter

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

AGENCY: REL throughout the bulletin, aka. REsearch Lebanon

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

EMSC: Euro-Mediterranean Seismological Centre.

OT: Origin Time

RMS: Root mean square value of travel time residuals

STAT: Station code

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

DIST: Epicenter distance (km)

AZI: Azimuth from source to station

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

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

HR: Hour

MN: Minute

SECON: Seconds

TRES: Residual (seconds)

CODA: Signal duration in seconds

AMPL: Ground Amplitude ($0.5 * (\text{peak to peak})$), (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.

July 1 2017 Hour: 4: 7 48.7

Agency: REL Regional

EMSC OT=04:07:48.7 37.57N 38.51E 5Km M=3.6 EASTERN TURKEY

| STAT | CO | DIST | AZI | PHASE | P | HRMN | SECON | TRES | CODA | AMPL | PERI | BAZ | ARES | VELO | WT |
|------|----|------|-----|-------|---|------|-------|------|------|------|------|-----|------|------|----|
| BEIL | SZ | | | EP | | 4 8 | 46.28 | | | | | | | | |
| HWQ | SZ | | | EP | | 4 8 | 47.23 | | | | | | | | |

July 1 2017 Hour: 14:22 1.5

Lat: 34.54N Lon: 36.28E Depth: 4 Agency: REL Local

Magnitudes: 3.2MC 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 | 8 | 270 | EP | | 1422 | 3.02-0.02 | | 84 | | | | | | 1.0 |
| BEIL | SN | 8 | 270 | ES | | 1422 | 4.18 0.00 | | | | | | | | 1.0 |
| HWQ | SZ | 42 | 226 | EP | | 1422 | 8.25-0.08 | | | | | | | | 1.0 |
| HWQ | SN | 42 | 226 | ES | | 1422 | 13.38-0.01 | | | | | | | | 1.0 |
| ZAHL | SZ | 84 | 205 | EP | | 1422 | 15.08 0.03 | | | | | | | | 1.0 |
| ZAHL | SE | 84 | 205 | ES | | 1422 | 25.02-0.07 | | | | | | | | 1.0 |
| BHL | BZ | 91 | 219 | EP | | 1422 | 16.19 0.00 | | | | | | | | 1.0 |
| BHL | BN | 91 | 219 | ES | | 1422 | 27.06 0.00 | | | | | | | | 1.0 |
| DQRL | SZ | 113 | 215 | EP | | 1422 | 19.89 0.11 | | | | | | | | 1.0 |
| DQRL | SN | 113 | 215 | ES | | 1422 | 33.36 0.05 | | | | | | | | 1.0 |
| RCY | SZ | 123 | 199 | EP | | 1422 | 21.10-0.12 | | | | | | | | 1.0 |
| SHBL | SZ | 141 | 201 | EP | | 1422 | 24.02 0.09 | | | | | | | | 1.0 |

July 1 2017 Hour: 17:56 24.3

Lat: 34.13N Lon: 36.00E Depth: 0 Agency: REL Local

Magnitudes: 3.2MC REL

Rms: 0.1 secs

JBEIL REGION

| STAT | CO | DIST | AZI | PHASE | P | HRMN | SECON | TRES | CODA | AMPL | PERI | BAZ | ARES | VELO | WT |
|------|----|------|-----|-------|---|------|------------|------|------|------|------|-----|------|------|-----|
| HWQ | SZ | 17 | 344 | EP | | 1756 | 27.03-0.01 | | 77 | | | | | | 1.0 |
| ZAHL | SZ | 32 | 199 | EP | | 1756 | 29.35-0.13 | | | | | | | | 1.0 |
| ZAHL | SN | 32 | 199 | ES | | 1756 | 33.36 0.05 | | | | | | | | 1.0 |
| BHL | BZ | 40 | 231 | EP | | 1756 | 30.79-0.04 | | | | | | | | 1.0 |
| BEIL | SZ | 49 | 21 | EP | | 1756 | 32.16-0.01 | | | | | | | | 1.0 |
| BEIL | SN | 49 | 21 | ES | | 1756 | 38.01 0.03 | | | | | | | | 1.0 |
| DQRL | SZ | 62 | 220 | EP | | 1756 | 34.31 0.07 | | | | | | | | 1.0 |
| QRWL | SZ | 71 | 204 | EP | | 1756 | 35.81 0.05 | | | | | | | | 1.0 |
| RCY | SZ | 72 | 192 | EP | | 1756 | 35.93 0.00 | | | | | | | | 1.0 |
| RCY | SN | 72 | 192 | ES | | 1756 | 44.53 0.01 | | | | | | | | 1.0 |
| SHBL | SZ | 90 | 195 | EP | | 1756 | 38.82-0.01 | | | | | | | | 1.0 |

July 2 2017 Hour: 10:48 58.0

Lat: 34.71N Lon: 34.50E Depth: 20 Agency: REL Regional

Magnitudes: 3.4MC REL

Rms: 0.0 secs

OFFSHORE NORTH LEBANON

| STAT | CO | DIST | AZI | PHASE | P | HRMN | SECON | TRES | CODA | AMPL | PERI | BAZ | ARES | VELO | WT |
|------|----|------|-----|-------|---|------|------------|------|------|------|------|-----|------|------|-----|
| BHL | BZ | 139 | 130 | EP | | 1049 | 19.50 0.07 | | | | | | | | 1.0 |
| HWQ | SZ | 141 | 110 | EP | | 1049 | 19.71-0.01 | | 89 | | | | | | 1.0 |
| HWQ | SN | 141 | 110 | ES | | 1049 | 35.81 0.02 | | | | | | | | 1.0 |
| DQRL | SZ | 149 | 138 | EP | | 1049 | 20.67 0.00 | | | | | | | | 1.0 |
| BEIL | SZ | 155 | 97 | EP | | 1049 | 21.47 0.03 | | | | | | | | 1.0 |
| BEIL | SN | 155 | 97 | ES | | 1049 | 38.75-0.02 | | | | | | | | 1.0 |
| ZAHL | SZ | 159 | 126 | EP | | 1049 | 21.82-0.10 | | | | | | | | 1.0 |

July 2 2017 Hour: 11: 6 39.4

Lat: 31.92N Lon: 35.28E Depth: 0 Agency: REL Regional

Magnitudes: 3.2MC REL

Rms: 0.2 secs

DEAD SEA REGION

| STAT | CO | DIST | AZI | PHASE | P | HRMN | SECON | TRES | CODA | AMPL | PERI | BAZ | ARES | VELO | WT |
|------|----|------|-----|-------|---|------|------------|------|------|------|------|-----|------|------|-----|
| SHBL | SZ | 164 | 15 | EP | | 11 7 | 5.53 0.01 | | | | | | | | 1.0 |
| RCY | SZ | 182 | 17 | EP | | 11 7 | 7.95-0.24 | | 63 | | | | | | 1.0 |
| RCY | SN | 182 | 17 | ES | | 11 7 | 29.59 0.10 | | | | | | | | 1.0 |
| DQRL | SZ | 200 | 8 | EP | | 11 7 | 10.76 0.39 | | | | | | | | 1.0 |
| DQRL | SN | 200 | 8 | ES | | 11 7 | 33.18-0.09 | | | | | | | | 1.0 |
| ZAHL | SZ | 222 | 15 | EP | | 11 7 | 12.98-0.20 | | | | | | | | 1.0 |
| BHL | BZ | 223 | 9 | EP | | 11 7 | 12.91-0.31 | | | | | | | | 1.0 |
| HWQ | SZ | 269 | 13 | EP | | 11 7 | 19.12 0.17 | | | | | | | | 1.0 |

BEIL SZ 303 16 EP 11 7 23.27 0.16 1.0

July 2 2017 Hour: 12:51 55.4 Agency: REL Regional

| STAT | CO | DIST | AZI | PHASE | P | HRMN | SECON | TRES | CODA | AMPL | PERI | BAZ | ARES | VELO | WT |
|------|----|------|-----|-------|---|------|-------|------|------|------|------|-----|------|------|----|
| SHBL | SZ | | | EP | | 1252 | 1.11 | | | | | | | | |
| DQRL | SZ | | | EP | | 1252 | 5.83 | | | | | | | | |
| BHL | BZ | | | EP | | 1252 | 8.55 | | | | | | | | |
| HWQ | SZ | | | EP | | 1252 | 18.41 | | | | | | | | |

July 2 2017 Hour: 12:40 4.2 Agency: REL Distant

EMSC OT=12:40:04.2 27.50S 176.01W 2Km M=5.5 KERMADEC ISLANDS

| STAT | CO | DIST | AZI | PHASE | P | HRMN | SECON | TRES | CODA | AMPL | PERI | BAZ | ARES | VELO | WT |
|------|----|------|-----|-------|---|------|-------|------|------|------|------|-----|------|------|----|
| BEIL | SZ | | | EP | | 13 0 | 1.65 | | | | | | | | |
| ZAHL | SZ | | | EP | | 13 0 | 2.54 | | | | | | | | |
| BHL | BZ | | | EP | | 13 0 | 2.19 | | | | | | | | |
| RCY | SZ | | | EP | | 13 0 | 2.67 | | | | | | | | |
| DQRL | SZ | | | EP | | 13 0 | 3.22 | | | | | | | | |

July 2 2017 Hour: 16:47 15.0 Lat: 34.94N Lon: 36.97E Depth: 25 Agency: REL Regional
Magnitudes: 2.9MC 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 | 84 | 239 | EP | | 1647 | 28.46 | -0.03 | 50 | | | | | | 1.0 |
| BEIL | SN | 84 | 239 | ES | | 1647 | 38.47 | 0.02 | | | | | | | 1.0 |
| ZAHL | SZ | 155 | 220 | EP | | 1647 | 38.30 | 0.12 | | | | | | | 1.0 |
| ZAHL | SE | 155 | 220 | ES | | 1647 | 55.30 | -0.02 | | | | | | | 1.0 |
| BHL | BZ | 166 | 227 | EP | | 1647 | 39.60 | 0.10 | | | | | | | 1.0 |
| DQRL | SZ | 187 | 224 | EP | | 1647 | 41.94 | -0.19 | | | | | | | 1.0 |

July 3 2017 Hour: 10: 4 32.2 Lat: 33.54N Lon: 35.71E Depth: 0 Agency: REL Local
Magnitudes: 2.5MC REL Rms: 0.1 secs

RACHAYA REGION

| STAT | CO | DIST | AZI | PHASE | P | HRMN | SECON | TRES | CODA | AMPL | PERI | BAZ | ARES | VELO | WT |
|------|----|------|-----|-------|---|------|-------|-------|------|------|------|-----|------|------|-----|
| QRWL | SZ | 3 | 291 | EP | | 10 4 | 32.62 | -0.05 | 31 | | | | | | 1.0 |
| RCY | SZ | 12 | 112 | EP | | 10 4 | 34.10 | -0.10 | | | | | | | 1.0 |
| SHBL | SZ | 21 | 172 | EP | | 10 4 | 35.60 | -0.02 | | | | | | | 1.0 |
| SHBL | SN | 21 | 172 | ES | | 10 4 | 38.23 | 0.07 | | | | | | | 1.0 |
| DQRL | SZ | 23 | 325 | EP | | 10 4 | 35.90 | 0.05 | | | | | | | 1.0 |
| DQRL | SN | 23 | 325 | ES | | 10 4 | 38.53 | -0.04 | | | | | | | 1.0 |
| ZAHL | SZ | 39 | 24 | EP | | 10 4 | 38.54 | 0.07 | | | | | | | 1.0 |
| BHL | BZ | 41 | 353 | EP | | 10 4 | 38.81 | 0.02 | | | | | | | 1.0 |

July 3 2017 Hour: 10:19 1.7 Lat: 33.53N Lon: 35.69E Depth: 0 Agency: REL Local
Magnitudes: 2.7MC 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 | 3 | 337 | EP | | 1019 | 2.07 | -0.06 | 41 | | | | | | 1.0 |
| RCY | SZ | 14 | 104 | EP | | 1019 | 3.71 | -0.20 | | | | | | | 1.0 |
| RCY | SN | 14 | 104 | ES | | 1019 | 5.66 | 0.11 | | | | | | | 1.0 |
| SHBL | SZ | 20 | 167 | EP | | 1019 | 5.06 | 0.08 | | | | | | | 1.0 |
| DQRL | SZ | 23 | 330 | EP | | 1019 | 5.33 | -0.06 | | | | | | | 1.0 |
| DQRL | SN | 23 | 330 | ES | | 1019 | 8.23 | 0.11 | | | | | | | 1.0 |
| BHL | BZ | 42 | 355 | EP | | 1019 | 8.36 | -0.11 | | | | | | | 1.0 |
| HWQ | SZ | 87 | 16 | EP | | 1019 | 15.78 | 0.12 | | | | | | | 1.0 |

July 3 2017 Hour: 23:43 20.6 Lat: 33.70N Lon: 35.90E Depth: 14 Agency: REL Local
Magnitudes: 2.9MC 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 | 18 | 354 | EP | | 2343 | 24.48 | 0.03 | | | | | | | 1.0 |
| RCY | SZ | 23 | 196 | EP | | 2343 | 25.04 | -0.09 | | | | | | | 1.0 |
| RCY | SN | 23 | 196 | ES | | 2343 | 28.51 | 0.02 | | | | | | | 1.0 |
| QRWL | SZ | 26 | 231 | EP | | 2343 | 25.56 | 0.03 | | | | | | | 1.0 |
| DQRL | SZ | 31 | 272 | EP | | 2343 | 26.16 | -0.01 | | | | | | | 1.0 |

| | | | | | | | | | | | | | | | | | |
|------|----|----|-----|----|--|------|-------|-------|----|--|--|--|--|--|--|--|-----|
| DQRL | SN | 31 | 272 | ES | | 2343 | 30.28 | -0.01 | | | | | | | | | 1.0 |
| BHL | BZ | 33 | 315 | EP | | 2343 | 26.35 | -0.05 | 54 | | | | | | | | 1.0 |
| BHL | BN | 33 | 315 | ES | | 2343 | 30.73 | 0.03 | | | | | | | | | 1.0 |
| SHBL | SZ | 42 | 201 | EP | | 2343 | 27.79 | 0.06 | | | | | | | | | 1.0 |
| HWQ | SZ | 65 | 3 | EP | | 2343 | 31.06 | -0.03 | | | | | | | | | 0.2 |

July 4 2017 Hour: 16: 4 4.8 Lat: 34.01N Lon: 36.00E Depth: 16 Agency: REL Local
Magnitudes: 2.7MC REL Rms: 0.0 secs

BAALBECK REGION

| STAT | CO | DIST | AZI | PHASE | P | HRMN | SECON | TRES | CODA | AMPL | PERI | BAZ | ARES | VELO | WT |
|------|----|------|-----|-------|---|------|-------|-------|-------|------|------|-----|------|------|-----|
| ZAHL | SZ | 20 | 214 | EP | | 16 | 4 | 9.06 | 0.03 | | | | | | 1.0 |
| HWQ | SZ | 31 | 350 | EP | | 16 | 4 | 10.44 | -0.04 | 37 | | | | | 1.0 |
| HWQ | SN | 31 | 350 | ES | | 16 | 4 | 14.63 | -0.01 | | | | | | 1.0 |
| BHL | BZ | 34 | 251 | EP | | 16 | 4 | 10.96 | 0.02 | | | | | | 1.0 |
| DQRL | SZ | 52 | 231 | EP | | 16 | 4 | 13.51 | -0.00 | | | | | | 1.0 |
| QRWL | SZ | 59 | 211 | EP | | 16 | 4 | 14.51 | 0.02 | | | | | | 1.0 |
| BEIL | SZ | 62 | 16 | EP | | 16 | 4 | 14.94 | 0.01 | | | | | | 1.0 |
| SHBL | SZ | 77 | 198 | EP | | 16 | 4 | 17.20 | 0.04 | | | | | | 1.0 |
| SHBL | SN | 77 | 198 | ES | | 16 | 4 | 26.19 | -0.07 | | | | | | 1.0 |

July 4 2017 Hour: 23:13 14.2 Lat: 33.79N Lon: 35.80E Depth: 5 Agency: REL Local
Magnitudes: 2.5MC 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 | 11 | 48 | EP | | 2313 | 16.34 | 0.01 | | | | | | | 1.0 |
| BHL | BZ | 18 | 313 | EP | | 2313 | 17.34 | -0.03 | 29 | | | | | | 1.0 |
| DQRL | SZ | 23 | 246 | EP | | 2313 | 18.11 | -0.00 | | | | | | | 1.0 |
| DQRL | SN | 23 | 246 | ES | | 2313 | 20.99 | 0.02 | | | | | | | 1.0 |
| QRWL | SZ | 29 | 202 | EP | | 2313 | 19.02 | -0.02 | | | | | | | 1.0 |
| RCY | SZ | 33 | 174 | EP | | 2313 | 19.66 | -0.00 | | | | | | | 1.0 |
| RCY | SN | 33 | 174 | ES | | 2313 | 23.65 | -0.02 | | | | | | | 1.0 |
| SHBL | SZ | 49 | 186 | EP | | 2313 | 22.32 | 0.04 | | | | | | | 1.0 |

July 5 2017 Hour: 10:51 54.5 Agency: REL Regional

| STAT | CO | DIST | AZI | PHASE | P | HRMN | SECON | TRES | CODA | AMPL | PERI | BAZ | ARES | VELO | WT |
|------|----|------|-----|-------|---|------|-------|------|------|------|------|-----|------|------|----|
| SHBL | SZ | | | EP | | 1052 | 2.37 | | | | | | | | |
| RCY | SZ | | | EP | | 1052 | 5.29 | | | | | | | | |
| HWQ | SZ | | | EP | | 1052 | 17.89 | | | | | | | | |

July 5 2017 Hour: 12: 6 1.0 Lat: 34.03N Lon: 35.74E Depth: 1 Agency: REL Local
Magnitudes: 2.4MC REL Rms: 0.1 secs

KESROUAN REGION

| STAT | CO | DIST | AZI | PHASE | P | HRMN | SECON | TRES | CODA | AMPL | PERI | BAZ | ARES | VELO | WT |
|------|----|------|-----|-------|---|------|-------|-------|-------|------|------|-----|------|------|-----|
| BHL | BZ | 16 | 209 | EP | | 12 | 6 | 3.50 | -0.07 | 27 | | | | | 1.0 |
| BHL | BN | 16 | 209 | ES | | 12 | 6 | 5.48 | 0.01 | | | | | | 1.0 |
| ZAHL | SZ | 23 | 144 | EP | | 12 | 6 | 4.70 | -0.10 | | | | | | 1.0 |
| HWQ | SZ | 34 | 35 | EP | | 12 | 6 | 6.46 | -0.01 | | | | | | 1.0 |
| HWQ | SN | 34 | 35 | ES | | 12 | 6 | 10.61 | 0.08 | | | | | | 1.0 |
| DQRL | SZ | 39 | 203 | EP | | 12 | 6 | 7.34 | 0.05 | | | | | | 1.0 |
| RCY | SZ | 60 | 171 | EP | | 12 | 6 | 10.57 | -0.07 | | | | | | 1.0 |
| BEIL | SZ | 70 | 36 | EP | | 12 | 6 | 12.33 | -0.02 | | | | | | 1.0 |
| SHBL | SZ | 75 | 179 | EP | | 12 | 6 | 13.12 | -0.05 | | | | | | 1.0 |
| SHBL | SN | 75 | 179 | ES | | 12 | 6 | 22.34 | 0.16 | | | | | | 1.0 |

July 6 2017 Hour: 10:13 1.8 Lat: 33.54N Lon: 35.71E Depth: 0 Agency: REL Local
Magnitudes: 2.6MC REL Rms: 0.1 secs

RACHAYA REGION

| STAT | CO | DIST | AZI | PHASE | P | HRMN | SECON | TRES | CODA | AMPL | PERI | BAZ | ARES | VELO | WT |
|------|----|------|-----|-------|---|------|-------|-------|------|------|------|-----|------|------|-----|
| QRWL | SZ | 3 | 297 | EP | | 1013 | 2.22 | -0.08 | | | | | | | 1.0 |
| RCY | SZ | 13 | 111 | EP | | 1013 | 3.77 | -0.06 | 36 | | | | | | 1.0 |
| RCY | SN | 13 | 111 | ES | | 1013 | 5.32 | -0.01 | | | | | | | 1.0 |
| SHBL | SZ | 21 | 171 | EP | | 1013 | 5.30 | 0.09 | | | | | | | 1.0 |
| DQRL | SZ | 23 | 325 | EP | | 1013 | 5.43 | -0.07 | | | | | | | 1.0 |
| DQRL | SN | 23 | 325 | ES | | 1013 | 8.30 | 0.07 | | | | | | | 1.0 |

ZAHL SZ 39 24 EP 1013 8.19 0.05 1.0

July 7 2017 Hour: 9:51 28.0 Lat: 33.87N Lon: 35.84E Depth: 0 Agency: REL Local
Magnitudes: 2.7MC REL Rms: 0.1 secs

ZAHLE REGION

| STAT | CO | DIST | AZI | PHASE | P | HRMN | SECON | TRES | CODA | AMPL | PERI | BAZ | ARES | VELO | WT |
|------|----|------|-----|-------|---|------|-------|-------|------|------|------|-----|------|------|-----|
| ZAHL | SZ | 4 | 106 | EP | | 951 | 28.60 | -0.12 | | | | | | | 1.0 |
| BHL | BZ | 18 | 283 | EP | | 951 | 30.83 | -0.08 | 41 | | | | | | 1.0 |
| BHL | BN | 18 | 283 | ES | | 951 | 33.03 | -0.02 | | | | | | | 1.0 |
| DQRL | SZ | 31 | 234 | EP | | 951 | 33.10 | 0.07 | | | | | | | 1.0 |
| RCY | SZ | 41 | 181 | EP | | 951 | 34.66 | -0.03 | | | | | | | 1.0 |
| RCY | SN | 41 | 181 | ES | | 951 | 39.69 | 0.08 | | | | | | | 1.0 |
| HWQ | SZ | 46 | 12 | EP | | 951 | 35.56 | 0.05 | | | | | | | 1.0 |
| SHBL | SZ | 58 | 189 | EP | | 951 | 37.43 | -0.02 | | | | | | | 1.0 |
| BEIL | SZ | 81 | 23 | EP | | 951 | 41.18 | 0.08 | | | | | | | 1.0 |

July 7 2017 Hour: 19:27 47.2 Lat: 33.79N Lon: 35.77E Depth: 6 Agency: REL Local
Magnitudes: 2.6MC REL Rms: 0.0 secs

ALEY REGION

| STAT | CO | DIST | AZI | PHASE | P | HRMN | SECON | TRES | CODA | AMPL | PERI | BAZ | ARES | VELO | WT |
|------|----|------|-----|-------|---|------|-------|-------|------|------|------|-----|------|------|-----|
| ZAHL | SZ | 14 | 55 | EP | | 1927 | 49.67 | -0.01 | | | | | | | 1.0 |
| BHL | BZ | 17 | 321 | EP | | 1927 | 50.12 | 0.02 | 33 | | | | | | 1.0 |
| DQRL | SZ | 20 | 243 | EP | | 1927 | 50.68 | 0.01 | | | | | | | 1.0 |
| DQRL | SN | 20 | 243 | ES | | 1927 | 53.24 | -0.02 | | | | | | | 1.0 |
| RCY | SZ | 33 | 169 | EP | | 1927 | 52.63 | -0.01 | | | | | | | 1.0 |
| RCY | SN | 33 | 169 | ES | | 1927 | 56.71 | 0.02 | | | | | | | 1.0 |
| SHBL | SZ | 49 | 182 | EP | | 1927 | 55.13 | -0.02 | | | | | | | 1.0 |
| HWQ | SZ | 57 | 17 | EP | | 1927 | 56.46 | 0.04 | | | | | | | 0.2 |
| BEIL | SZ | 92 | 25 | EP | | 1928 | 2.06 | -0.00 | | | | | | | 0.2 |

July 9 2017 Hour: 14:26 34.2 Lat: 34.65N Lon: 36.17E Depth: 8 Agency: REL Local
Magnitudes: 3.0MC REL Rms: 0.3 secs

SYRIA REGION

| STAT | CO | DIST | AZI | PHASE | P | HRMN | SECON | TRES | CODA | AMPL | PERI | BAZ | ARES | VELO | WT |
|------|----|------|-----|-------|---|------|-------|-------|------|------|------|-----|------|------|-----|
| BEIL | SZ | 12 | 173 | EP | | 1426 | 36.57 | 0.01 | 62 | | | | | | 1.0 |
| BEIL | SE | 12 | 173 | ES | | 1426 | 38.33 | -0.00 | | | | | | | 1.0 |
| HWQ | SZ | 46 | 207 | EP | | 1426 | 41.52 | -0.18 | | | | | | | 1.0 |
| HWQ | SE | 46 | 207 | ES | | 1426 | 47.39 | 0.13 | | | | | | | 1.0 |
| ZAHL | SZ | 91 | 197 | EP | | 1426 | 49.04 | 0.10 | | | | | | | 1.0 |
| ZAHL | SE | 91 | 197 | ES | | 1426 | 59.77 | -0.11 | | | | | | | 1.0 |
| BHL | BZ | 95 | 210 | EP | | 1426 | 49.35 | -0.13 | | | | | | | 1.0 |
| DQRL | SZ | 118 | 208 | EP | | 1426 | 52.95 | 0.08 | | | | | | | 1.0 |

July 10 2017 Hour: 10:19 6.2 Lat: 33.55N Lon: 35.72E Depth: 2 Agency: REL Local
Magnitudes: 2.5MC REL Rms: 0.0 secs

WEST BEKAA REGION

| STAT | CO | DIST | AZI | PHASE | P | HRMN | SECON | TRES | CODA | AMPL | PERI | BAZ | ARES | VELO | WT |
|------|----|------|-----|-------|---|------|-------|-------|------|------|------|-----|------|------|-----|
| RCY | SZ | 13 | 119 | EP | | 1019 | 8.24 | -0.09 | 30 | | | | | | 1.0 |
| RCY | SN | 13 | 119 | ES | | 1019 | 9.96 | 0.03 | | | | | | | 1.0 |
| DQRL | SZ | 22 | 322 | EP | | 1019 | 9.68 | -0.00 | | | | | | | 1.0 |
| DQRL | SN | 22 | 322 | ES | | 1019 | 12.29 | 0.00 | | | | | | | 1.0 |
| SHBL | SZ | 23 | 173 | EP | | 1019 | 9.90 | -0.01 | | | | | | | 1.0 |
| SHBL | SN | 23 | 173 | ES | | 1019 | 12.71 | 0.03 | | | | | | | 1.0 |
| ZAHL | SZ | 37 | 25 | EP | | 1019 | 12.27 | 0.06 | | | | | | | 1.0 |
| BHL | BZ | 39 | 352 | EP | | 1019 | 12.51 | -0.02 | | | | | | | 1.0 |

July 11 2017 Hour: 1:49 24.4 Lat: 33.80N Lon: 35.77E Depth: 13 Agency: REL Local
Magnitudes: 2.7MC REL Rms: 0.1 secs

ZAHLE REGION

| STAT | CO | DIST | AZI | PHASE | P | HRMN | SECON | TRES | CODA | AMPL | PERI | BAZ | ARES | VELO | WT |
|------|----|------|-----|-------|---|------|-------|-------|------|------|------|-----|------|------|-----|
| ZAHL | SZ | 12 | 58 | EP | | 149 | 27.44 | -0.01 | | | | | | | 1.0 |
| BHL | BZ | 16 | 317 | EP | | 149 | 27.87 | 0.02 | 38 | | | | | | 1.0 |
| DQRL | SZ | 22 | 241 | EP | | 149 | 28.48 | -0.07 | | | | | | | 1.0 |
| DQRL | SE | 22 | 241 | ES | | 149 | 31.64 | 0.02 | | | | | | | 1.0 |

| | | | | | | | | | | | | | | | | | |
|------|----|----|-----|----|--|-----|-------|-------|--|--|--|--|--|--|--|--|-----|
| RCY | SZ | 34 | 170 | EP | | 149 | 30.47 | 0.09 | | | | | | | | | 1.0 |
| RCY | SN | 34 | 170 | ES | | 149 | 34.74 | -0.06 | | | | | | | | | 1.0 |
| SHBL | SZ | 50 | 183 | EP | | 149 | 32.77 | -0.05 | | | | | | | | | 1.0 |
| SHBL | SN | 50 | 183 | ES | | 149 | 39.10 | 0.05 | | | | | | | | | 1.0 |

July 12 2017 Hour: 0:40 53.9 Lat: 33.54N Lon: 35.55E Depth: 0 Agency: REL Local
Magnitudes: 2.7MC REL Rms: 0.2 secs

JEZZINE REGION

| STAT | CO | DIST | AZI | PHASE | P | HRMN | SECON | TRES | CODA | AMPL | PERI | BAZ | ARES | VELO | WT |
|------|----|------|-----|-------|---|------|-------|-------|------|------|------|-----|------|------|-----|
| QRWL | SZ | 12 | 84 | EP | | 040 | 55.82 | -0.07 | 42 | | | | | | 1.0 |
| QRWL | SN | 12 | 84 | ES | | 040 | 57.33 | -0.01 | | | | | | | 1.0 |
| DQRL | SZ | 19 | 5 | EP | | 040 | 57.04 | 0.08 | | | | | | | 1.0 |
| RCY | SZ | 27 | 100 | EP | | 040 | 58.22 | -0.02 | | | | | | | 1.0 |
| SHBL | SZ | 28 | 139 | EP | | 040 | 58.41 | 0.05 | | | | | | | 1.0 |
| SHBL | SN | 28 | 139 | ES | | 041 | 1.69 | 0.05 | | | | | | | 1.0 |
| BHL | BZ | 42 | 13 | EP | | 041 | 0.56 | -0.11 | 36 | | | | | | 1.0 |
| BHL | BN | 42 | 13 | ES | | 041 | 5.70 | 0.03 | | | | | | | 1.0 |
| ZAHL | SZ | 47 | 41 | EP | | 041 | 1.48 | -0.05 | | | | | | | 1.0 |
| HWQ | SZ | 90 | 24 | EP | | 041 | 8.85 | 0.42 | | | | | | | 0.2 |
| BEIL | SZ | 126 | 27 | EP | | 041 | 15.44 | 1.22 | | | | | | | 0.2 |

July 12 2017 Hour: 16:35 10.6 Lat: 36.34N Lon: 36.01E Depth: 33 Agency: REL Regional
Magnitudes: 3.9MC REL Rms: 0.1 secs

TURKEY REGION

| STAT | CO | DIST | AZI | PHASE | P | HRMN | SECON | TRES | CODA | AMPL | PERI | BAZ | ARES | VELO | WT |
|------|----|------|-----|-------|---|------|-------|-------|------|------|------|-----|------|------|-----|
| BEIL | SZ | 200 | 175 | EP | | 1635 | 38.67 | 0.02 | 164 | | | | | | 1.0 |
| BEIL | SN | 200 | 175 | ES | | 1635 | 59.32 | -0.05 | | | | | | | 1.0 |
| HWQ | SZ | 229 | 181 | EP | | 1635 | 42.15 | -0.12 | | | | | | | 1.0 |
| HWQ | SN | 229 | 181 | ES | | 1636 | 5.83 | 0.16 | | | | | | | 1.0 |
| BHL | BZ | 272 | 187 | EP | | 1635 | 47.59 | -0.05 | | | | | | | 1.0 |
| ZAHL | SZ | 276 | 182 | EP | | 1635 | 48.00 | -0.08 | | | | | | | 1.0 |
| ZAHL | SN | 276 | 182 | ES | | 1636 | 15.68 | -0.11 | | | | | | | 1.0 |
| DQRL | SZ | 295 | 188 | EP | | 1635 | 50.33 | -0.14 | | | | | | | 1.0 |
| RCY | SZ | 316 | 183 | EP | | 1635 | 53.14 | 0.04 | | | | | | | 1.0 |
| SHBL | SZ | 333 | 184 | EP | | 1635 | 55.54 | 0.33 | | | | | | | 1.0 |

July 12 2017 Hour: 19:44 45.7 Agency: REL Regional
EMSC OT=19:44:45.7 34.93N 32.65E 10Km M=3.1 CYPRUS REGION

| STAT | CO | DIST | AZI | PHASE | P | HRMN | SECON | TRES | CODA | AMPL | PERI | BAZ | ARES | VELO | WT |
|------|----|------|-----|-------|---|------|-------|------|------|------|------|-----|------|------|----|
| BEIL | SZ | | | EP | | 1945 | 31.35 | | | | | | | | |
| SHBL | SZ | | | EP | | 1945 | 31.90 | | | | | | | | |

July 12 2017 Hour: 19:48 7.0 Agency: REL Distant
EMSC OT=19:48:07.0 40.88N 131.62E 543Km M=5.9 SEA OF JAPAN

| STAT | CO | DIST | AZI | PHASE | P | HRMN | SECON | TRES | CODA | AMPL | PERI | BAZ | ARES | VELO | WT |
|------|----|------|-----|-------|---|------|-------|------|------|------|------|-----|------|------|----|
| BEIL | SZ | | | EP | | 1958 | 36.84 | | | | | | | | |
| HWQ | SZ | | | EP | | 1958 | 38.22 | | | | | | | | |
| ZAHL | SZ | | | EP | | 1958 | 40.53 | | | | | | | | |
| BHL | BZ | | | EP | | 1958 | 40.63 | | | | | | | | |
| DQRL | SZ | | | EP | | 1958 | 42.03 | | | | | | | | |
| RCY | SZ | | | EP | | 1958 | 41.92 | | | | | | | | |
| QRWL | SZ | | | EP | | 1958 | 42.21 | | | | | | | | |
| SHBL | SZ | | | EP | | 1958 | 42.64 | | | | | | | | |

July 13 2017 Hour: 14:27 40.6 Lat: 34.02N Lon: 35.76E Depth: 7 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 |
|------|----|------|-----|-------|---|------|-------|-------|------|------|------|-----|------|------|-----|
| BHL | BZ | 16 | 219 | EP | | 1427 | 43.49 | -0.10 | 39 | | | | | | 1.0 |
| BHL | BN | 16 | 219 | ES | | 1427 | 45.89 | 0.09 | | | | | | | 1.0 |
| ZAHL | SZ | 21 | 148 | EP | | 1427 | 44.30 | -0.00 | | | | | | | 1.0 |
| HWQ | SZ | 33 | 30 | EP | | 1427 | 46.04 | -0.12 | | | | | | | 1.0 |
| DQRL | SZ | 39 | 207 | EP | | 1427 | 47.12 | 0.06 | | | | | | | 1.0 |
| DQRL | SE | 39 | 207 | ES | | 1427 | 51.80 | -0.05 | | | | | | | 1.0 |

BEIL SZ 70 34 EP 1427 52.06 0.13 1.0

July 14 2017 Hour: 12:40 8.3 Lat: 33.79N Lon: 35.76E Depth: 5 Agency: REL Local
Magnitudes: 2.6MC REL Rms: 0.1 secs

ALEY REGION

| STAT | CO | DIST | AZI | PHASE | P | HRMN | SECON | TRES | CODA | AMPL | PERI | BAZ | ARES | VELO | WT |
|------|----|------|-----|-------|---|------|-------|-------|------|------|------|-----|------|------|-----|
| ZAHL | SZ | 14 | 56 | EP | | 1240 | 10.83 | 0.00 | | | | | | | 1.0 |
| BHL | BZ | 16 | 324 | EP | | 1240 | 11.03 | -0.09 | 35 | | | | | | 1.0 |
| DQRL | SZ | 20 | 243 | EP | | 1240 | 11.66 | 0.04 | | | | | | | 1.0 |
| DQRL | SE | 20 | 243 | ES | | 1240 | 14.12 | 0.03 | | | | | | | 1.0 |
| RCY | SZ | 33 | 167 | EP | | 1240 | 13.56 | -0.16 | | | | | | | 1.0 |
| RCY | SE | 33 | 167 | ES | | 1240 | 17.81 | 0.08 | | | | | | | 1.0 |
| HWQ | SZ | 57 | 18 | EP | | 1240 | 17.58 | -0.01 | | | | | | | 1.0 |
| BEIL | SZ | 93 | 25 | EP | | 1240 | 23.35 | 0.10 | | | | | | | 1.0 |

July 15 2017 Hour: 20:30 16.8 Agency: REL Regional

EMSC OT=20:30:16.8 34.78N 25.40E 15Km M=5.3 CRETE, GREECE

| STAT | CO | DIST | AZI | PHASE | P | HRMN | SECON | TRES | CODA | AMPL | PERI | BAZ | ARES | VELO | WT |
|------|----|------|-----|-------|---|------|-------|------|------|------|------|-----|------|------|----|
| DQRL | SZ | | | EP | | 2032 | 18.52 | | | | | | | | |
| BHL | BZ | | | EP | | 2032 | 18.60 | | | | | | | | |
| QRWL | SZ | | | EP | | 2032 | 19.13 | | | | | | | | |
| SHBL | SZ | | | EP | | 2032 | 20.18 | | | | | | | | |
| RCY | SZ | | | EP | | 2032 | 20.79 | | | | | | | | |
| ZAHL | SZ | | | EP | | 2032 | 20.63 | | | | | | | | |
| HWQ | SZ | | | EP | | 2032 | 21.54 | | | | | | | | |
| BEIL | SZ | | | EP | | 2032 | 22.97 | | | | | | | | |

July 16 2017 Hour: 5: 2 41.3 Lat: 32.88N Lon: 35.65E 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 |
|------|----|------|-----|-------|---|------|-------|-------|------|------|------|-----|------|------|-----|
| SHBL | SZ | 53 | 10 | EP | | 5 2 | 49.69 | -0.11 | 53 | | | | | | 1.0 |
| SHBL | SN | 53 | 10 | ES | | 5 2 | 56.07 | -0.02 | | | | | | | 1.0 |
| RCY | SZ | 71 | 14 | EP | | 5 2 | 52.68 | -0.00 | | | | | | | 1.0 |
| RCY | SN | 71 | 14 | ES | | 5 3 | 1.14 | 0.04 | | | | | | | 1.0 |
| QRWL | SZ | 74 | 2 | EP | | 5 2 | 53.28 | 0.02 | | | | | | | 1.0 |
| ZAHL | SZ | 111 | 11 | EP | | 5 2 | 59.11 | -0.04 | | | | | | | 1.0 |
| BHL | BZ | 114 | 0 | EP | | 5 2 | 59.63 | 0.01 | | | | | | | 1.0 |
| HWQ | SZ | 157 | 10 | EP | | 5 3 | 6.51 | 0.12 | | | | | | | 1.0 |

July 16 2017 Hour: 17: 6 44.2 Agency: REL Distant

EMSC OT=17:06:44.2 20.40S 173.86W 11Km M=5.5 TONGA

| STAT | CO | DIST | AZI | PHASE | P | HRMN | SECON | TRES | CODA | AMPL | PERI | BAZ | ARES | VELO | WT |
|------|----|------|-----|-------|---|------|-------|------|------|------|------|-----|------|------|----|
| BHL | BZ | | | EP | | 1726 | 30.31 | | | | | | | | |
| DQRL | SZ | | | EP | | 1726 | 31.39 | | | | | | | | |
| SHBL | SZ | | | EP | | 1726 | 31.62 | | | | | | | | |

July 16 2017 Hour: 22:47 27.7 Lat: 36.28N Lon: 35.85E Depth: 33 Agency: REL Regional

Magnitudes: 3.3MC REL

TURKEY REGION

| STAT | CO | DIST | AZI | PHASE | P | HRMN | SECON | TRES | CODA | AMPL | PERI | BAZ | ARES | VELO | WT |
|------|----|------|-----|-------|---|------|-------|-------|------|------|------|-----|------|------|-----|
| BEIL | SZ | 195 | 171 | EP | | 2247 | 54.86 | -0.17 | 78 | | | | | | 1.0 |
| BEIL | SN | 195 | 171 | ES | | 2248 | 15.24 | -0.04 | | | | | | | 1.0 |
| HWQ | SZ | 222 | 178 | EP | | 2247 | 58.59 | 0.13 | | | | | | | 1.0 |
| HWQ | SE | 222 | 178 | ES | | 2248 | 21.28 | 0.04 | | | | | | | 1.0 |
| BHL | BZ | 264 | 184 | EP | | 2248 | 3.21 | -0.44 | | | | | | | 1.0 |
| ZAHL | SZ | 269 | 179 | EP | | 2248 | 4.65 | 0.42 | | | | | | | 1.0 |
| DQRL | SZ | 287 | 185 | EP | | 2248 | 6.50 | 0.05 | | | | | | | 1.0 |

July 17 2017 Hour: 13:33 48.8 Lat: 33.47N Lon: 35.70E Depth: 0 Agency: REL Local
Magnitudes: 2.5MC 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 | 9 | 352 | EP | | 1333 | 50.10 | -0.10 | 30 | | | | | | 1.0 |
| RCY | SZ | 13 | 77 | EP | | 1333 | 50.93 | -0.00 | | | | | | | 1.0 |
| RCY | SN | 13 | 77 | ES | | 1333 | 52.55 | 0.02 | | | | | | | 1.0 |
| SHBL | SZ | 14 | 161 | EP | | 1333 | 51.02 | -0.02 | | | | | | | 1.0 |
| SHBL | SN | 14 | 161 | ES | | 1333 | 52.74 | 0.01 | | | | | | | 1.0 |
| DQRL | SZ | 29 | 336 | EP | | 1333 | 53.50 | 0.10 | | | | | | | 1.0 |

July 17 2017 Hour: 14:54 54.3 Lat: 33.80N Lon: 35.79E Depth: 13 Agency: REL Local
Magnitudes: 2.7MC 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 | 11 | 52 | EP | | 1454 | 57.17 | 0.00 | | | | | | | 1.0 |
| BHL | BZ | 17 | 312 | EP | | 1454 | 57.87 | -0.01 | 42 | | | | | | 1.0 |
| DQRL | SZ | 23 | 244 | EP | | 1454 | 58.62 | -0.01 | | | | | | | 1.0 |
| DQRL | SN | 23 | 244 | ES | | 1455 | 1.88 | 0.02 | | | | | | | 1.0 |
| QRWL | SZ | 30 | 200 | EP | | 1454 | 59.54 | -0.02 | | | | | | | 1.0 |
| RCY | SZ | 34 | 173 | EP | | 1455 | 0.19 | -0.00 | | | | | | | 1.0 |
| RCY | SN | 34 | 173 | ES | | 1455 | 4.59 | 0.01 | | | | | | | 1.0 |
| HWQ | SZ | 55 | 15 | EP | | 1455 | 3.43 | 0.01 | | | | | | | 1.0 |

July 20 2017 Hour: 16:18 45.7 Lat: 34.70N Lon: 36.20E Depth: 2 Agency: REL Local
Magnitudes: 3.0MC REL Rms: 0.2 secs

SYRIA REGION

| STAT | CO | DIST | AZI | PHASE | P | HRMN | SECON | TRES | CODA | AMPL | PERI | BAZ | ARES | VELO | WT |
|------|----|------|-----|-------|---|------|-------|-------|------|------|------|-----|------|------|-----|
| BEIL | SZ | 18 | 185 | EP | | 1618 | 48.59 | 0.07 | | | | | | | 1.0 |
| BEIL | SN | 18 | 185 | ES | | 1618 | 50.64 | 0.01 | | | | | | | 1.0 |
| HWQ | SZ | 52 | 207 | EP | | 1618 | 53.74 | -0.37 | 57 | | | | | | 1.0 |
| HWQ | SN | 52 | 207 | ES | | 1619 | 0.35 | -0.01 | | | | | | | 1.0 |
| BHL | BZ | 102 | 210 | EP | | 1619 | 2.18 | 0.13 | | | | | | | 1.0 |
| DQRL | SZ | 125 | 208 | EP | | 1619 | 6.04 | 0.27 | | | | | | | 1.0 |
| SHBL | SZ | 156 | 196 | EP | | 1619 | 10.26 | -0.10 | | | | | | | 1.0 |

July 20 2017 Hour: 22:31 11.0 Agency: REL Regional
EMSC OT=22:31:11.0 36.96N 27.45E 2Km M=6.6 DODECANESE-TURKEY BORDER REGION

| STAT | CO | DIST | AZI | PHASE | P | HRMN | SECON | TRES | CODA | AMPL | PERI | BAZ | ARES | VELO | WT |
|------|----|------|-----|-------|---|------|-------|------|------|------|------|-----|------|------|----|
| BHL | BZ | | | EP | | 2232 | 59.25 | | | | | | | | |
| DQRL | SZ | | | EP | | 2232 | 58.96 | | | | | | | | |
| HWQ | SZ | | | EP | | 2233 | 0.50 | | | | | | | | |
| QRWL | SZ | | | EP | | 2233 | 1.21 | | | | | | | | |
| ZAHL | SZ | | | EP | | 2233 | 1.61 | | | | | | | | |
| SHBL | SZ | | | EP | | 2233 | 2.49 | | | | | | | | |
| RCY | SZ | | | EP | | 2233 | 2.97 | | | | | | | | |

July 21 2017 Hour: 1:35 44.3 Agency: REL Regional
EMSC OT=01:35:44.3 36.93N 27.60E 2Km M=4.4 DODECANESE-TURKEY BORDER REGION

| STAT | CO | DIST | AZI | PHASE | P | HRMN | SECON | TRES | CODA | AMPL | PERI | BAZ | ARES | VELO | WT |
|------|----|------|-----|-------|---|------|-------|------|------|------|------|-----|------|------|----|
| HWQ | SZ | | | EP | | 137 | 31.68 | | | | | | | | |
| BEIL | SZ | | | EP | | 137 | 32.90 | | | | | | | | |
| ZAHL | SZ | | | EP | | 137 | 36.16 | | | | | | | | |
| SHBL | SZ | | | EP | | 137 | 35.64 | | | | | | | | |

July 21 2017 Hour: 1:38 49.2 Agency: REL Regional
EMSC OT=01:38:49.2 36.92N 27.58E 4Km M=4.6 DODECANESE-TURKEY BORDER REGION

| STAT | CO | DIST | AZI | PHASE | P | HRMN | SECON | TRES | CODA | AMPL | PERI | BAZ | ARES | VELO | WT |
|------|----|------|-----|-------|---|------|-------|------|------|------|------|-----|------|------|----|
| DQRL | SZ | | | EP | | 140 | 35.48 | | | | | | | | |
| RCY | SZ | | | EP | | 140 | 39.23 | | | | | | | | |
| SHBL | SZ | | | EP | | 140 | 40.28 | | | | | | | | |
| ZAHL | SZ | | | EP | | 140 | 40.63 | | | | | | | | |

July 21 2017 Hour: 2:12 34.8 Agency: REL Regional
EMSC OT=02:12:34.8 36.86N 27.37E 10Km M=4.7 DODECANESE-TURKEY BORDER REGION
 STAT CO DIST AZI PHASE P HRMN SECON TRES CODA AMPL PERI BAZ ARES VELO WT
 DQRL SZ EP 214 20.34
 HWQ SZ EP 214 22.57
 QRWL SZ EP 214 24.08
 BEIL SZ EP 214 24.08
 SHBL SZ EP 214 26.15
 RCY SZ EP 214 25.59

July 21 2017 Hour: 5: 4 0.9 Agency: REL Regional
EMSC OT=05:04:00.9 36.93N 27.57E 10Km M=4.6 DODECANESE-TURKEY BORDER REGION
 STAT CO DIST AZI PHASE P HRMN SECON TRES CODA AMPL PERI BAZ ARES VELO WT
 BEIL SZ EP 5 5 49.04
 RCY SZ EP 5 5 50.98

July 21 2017 Hour: 17: 9 48.5 Agency: REL Regional
EMSC OT=17:09:48.5 36.91N 27.34E 10Km M=5.0 DODECANESE-TURKEY BORDER REGION
 STAT CO DIST AZI PHASE P HRMN SECON TRES CODA AMPL PERI BAZ ARES VELO WT
 BHL BZ EP 1711 36.61
 DQRL SZ EP 1711 37.32
 HWQ SZ EP 1711 38.59
 Z AHL SZ EP 1711 40.12
 BEIL SZ EP 1711 40.08
 RCY SZ EP 1711 41.02

July 21 2017 Hour: 18:58 26.8 Lat: 33.78N Lon: 35.77E Depth: 5 Agency: REL Local
 Magnitudes: 3.0MC REL Rms: 0.0 secs
ALEY REGION

| STAT | CO | DIST | AZI | PHASE | P | HRMN | SECON | TRES | CODA | AMPL | PERI | BAZ | ARES | VELO | WT |
|-------|----|------|-----|-------|---|------|-------|-------|------|------|------|-----|------|------|-----|
| Z AHL | SZ | 14 | 49 | EP | | 1858 | 29.28 | 0.03 | | | | | | | 1.0 |
| BHL | BZ | 18 | 322 | EP | | 1858 | 29.81 | -0.07 | 57 | | | | | | 1.0 |
| DQRL | SZ | 21 | 247 | EP | | 1858 | 30.25 | -0.00 | | | | | | | 1.0 |
| DQRL | SN | 21 | 247 | ES | | 1858 | 32.85 | 0.03 | | | | | | | 1.0 |
| QRWL | SZ | 27 | 199 | EP | | 1858 | 31.21 | -0.02 | | | | | | | 1.0 |
| RCY | SZ | 32 | 170 | EP | | 1858 | 31.91 | -0.09 | | | | | | | 1.0 |
| RCY | SN | 32 | 170 | ES | | 1858 | 35.84 | -0.02 | | | | | | | 1.0 |
| SHBL | SZ | 48 | 183 | EP | | 1858 | 34.56 | 0.02 | | | | | | | 1.0 |
| SHBL | SN | 48 | 183 | ES | | 1858 | 40.34 | 0.06 | | | | | | | 1.0 |
| HWQ | SZ | 58 | 16 | EP | | 1858 | 36.22 | 0.04 | | | | | | | 1.0 |
| BEIL | SZ | 93 | 24 | EP | | 1858 | 41.81 | 0.01 | | | | | | | 1.0 |

July 21 2017 Hour: 20:46 54.5 Agency: REL Regional
EMSC OT=20:46:54.5 35.42N 27.90E 30Km M=3.3 DODECANESE ISLANDS, GREECE
 STAT CO DIST AZI PHASE P HRMN SECON TRES CODA AMPL PERI BAZ ARES VELO WT
 BHL BZ EP 2048 27.41
 Z AHL SZ EP 2048 29.92
 SHBL SZ EP 2048 30.51
 RCY SZ EP 2048 30.78
 BEIL SZ EP 2048 31.21

July 22 2017 Hour: 2: 5 26.1 Agency: REL Regional
EMSC OT=02:05:26.1 35.24N 25.53E 51Km M=3.8 CRETE, GREECE
 STAT CO DIST AZI PHASE P HRMN SECON TRES CODA AMPL PERI BAZ ARES VELO WT
 DQRL SZ EP 2 7 20.97
 BHL BZ EP 2 7 21.46
 Z AHL SZ EP 2 7 24.39
 SHBL SZ EP 2 7 24.84
 RCY SZ EP 2 7 24.88
 BEIL SZ EP 2 7 26.08

July 22 2017 Hour: 16:26 33.4 Lat: 34.39N Lon: 36.54E Depth: 4 Agency: REL Local
Magnitudes: 3.1MC REL Rms: 0.0 secs

AKKAR REGION

| STAT | CO | DIST | AZI | PHASE | P | HRMN | SECON | TRES | CODA | AMPL | PERI | BAZ | ARES | VELO | WT |
|------|----|------|-----|-------|---|------|-------|-------|------|------|------|-----|------|------|-----|
| HWQ | SZ | 56 | 257 | EP | | 1626 | 42.39 | -0.08 | 70 | | | | | | 1.0 |
| HWQ | SN | 56 | 257 | ES | | 1626 | 49.21 | 0.04 | | | | | | | 1.0 |
| ZAHL | SZ | 85 | 226 | EP | | 1626 | 47.14 | 0.06 | | | | | | | 1.0 |
| ZAHL | SN | 85 | 226 | ES | | 1626 | 57.15 | -0.04 | | | | | | | 1.0 |
| BHL | BZ | 98 | 237 | EP | | 1626 | 49.25 | 0.02 | | | | | | | 1.0 |
| DQRL | SZ | 117 | 230 | EP | | 1626 | 52.32 | -0.01 | | | | | | | 1.0 |
| SHBL | SZ | 137 | 213 | EP | | 1626 | 55.27 | 0.01 | | | | | | | 1.0 |

July 22 2017 Hour: 17: 9 21.2 Agency: REL Regional
EMSC OT=17:09:21.2 36.96N 27.35E 4Km M=4.7 DODECANESE-TURKEYBORDER REGION

| STAT | CO | DIST | AZI | PHASE | P | HRMN | SECON | TRES | CODA | AMPL | PERI | BAZ | ARES | VELO | WT |
|------|----|------|-----|-------|---|------|-------|------|------|------|------|-----|------|------|----|
| DQRL | SZ | | | EP | | 1711 | 7.50 | | | | | | | | |
| HWQ | SZ | | | EP | | 1711 | 11.02 | | | | | | | | |
| ZAHL | SZ | | | EP | | 1711 | 10.74 | | | | | | | | |
| BEIL | SZ | | | EP | | 1711 | 11.23 | | | | | | | | |
| RCY | SZ | | | EP | | 1711 | 12.84 | | | | | | | | |
| SHBL | SZ | | | EP | | 1711 | 13.20 | | | | | | | | |

July 22 2017 Hour: 17:25 47.8 Agency: REL Regional
EMSC OT=17:25:47.8 36.58N 26.75E 128Km M=4.6 DODECANESE ISLANDS, GREECE

| STAT | CO | DIST | AZI | PHASE | P | HRMN | SECON | TRES | CODA | AMPL | PERI | BAZ | ARES | VELO | WT |
|------|----|------|-----|-------|---|------|-------|------|------|------|------|-----|------|------|----|
| BEYL | SZ | | | EP | | 1727 | 32.57 | | | | | | | | |
| BHL | BZ | | | EP | | 1727 | 33.24 | | | | | | | | |
| DQRL | SZ | | | EP | | 1727 | 33.85 | | | | | | | | |
| HWQ | SZ | | | EP | | 1727 | 36.11 | | | | | | | | |
| QRWL | SZ | | | EP | | 1727 | 36.56 | | | | | | | | |
| ZAHL | SZ | | | EP | | 1727 | 36.56 | | | | | | | | |
| BEIL | SZ | | | EP | | 1727 | 37.33 | | | | | | | | |
| RCY | SZ | | | EP | | 1727 | 38.94 | | | | | | | | |
| SHBL | SZ | | | EP | | 1727 | 38.49 | | | | | | | | |

July 23 2017 Hour: 10:30 44.9 Lat: 33.46N Lon: 35.67E Depth: 0 Agency: REL Local
Magnitudes: 2.5MC 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 | 9 | 5 | EP | | 1030 | 46.42 | -0.03 | 31 | | | | | | 1.0 |
| SHBL | SZ | 14 | 153 | EP | | 1030 | 47.32 | 0.10 | | | | | | | 1.0 |
| SHBL | SN | 14 | 153 | ES | | 1030 | 48.86 | -0.08 | | | | | | | 1.0 |
| DQRL | SZ | 29 | 340 | EP | | 1030 | 49.48 | -0.05 | | | | | | | 1.0 |
| DQRL | SN | 29 | 340 | ES | | 1030 | 52.93 | -0.02 | | | | | | | 1.0 |
| ZAHL | SZ | 48 | 24 | EP | | 1030 | 52.65 | -0.02 | | | | | | | 1.0 |
| BHL | BZ | 49 | 358 | EP | | 1030 | 52.91 | 0.09 | | | | | | | 1.0 |

July 23 2017 Hour: 10:42 4.4 Lat: 33.97N Lon: 36.14E Depth: 9 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 | 27 | 244 | EP | | 1042 | 9.13 | 0.09 | 64 | | | | | | 1.0 |
| ZAHL | SN | 27 | 244 | ES | | 1042 | 12.41 | -0.03 | | | | | | | 1.0 |
| HWQ | SZ | 39 | 332 | EP | | 1042 | 10.86 | -0.11 | | | | | | | 1.0 |
| BHL | BZ | 46 | 262 | EP | | 1042 | 11.94 | -0.04 | | | | | | | 1.0 |
| RCY | SZ | 59 | 209 | EP | | 1042 | 14.04 | -0.09 | | | | | | | 1.0 |
| RCY | SN | 59 | 209 | ES | | 1042 | 21.33 | 0.02 | | | | | | | 1.0 |
| DQRL | SZ | 60 | 242 | EP | | 1042 | 14.40 | 0.10 | | | | | | | 1.0 |
| BEIL | SZ | 64 | 3 | EP | | 1042 | 14.89 | -0.00 | | | | | | | 1.0 |
| BEIL | SN | 64 | 3 | ES | | 1042 | 22.69 | 0.06 | | | | | | | 1.0 |

July 23 2017 Hour: 15:12 3.7 Lat: 33.93N Lon: 36.07E Depth: 7 Agency: REL Local
Magnitudes: 2.4MC REL Rms: 0.1 secs

BAALBECK REGION

| STAT | CO | DIST | AZI | PHASE | P | HRMN | SECON | TRES | CODA | AMPL | PERI | BAZ | ARES | VELO | WT |
|------|----|------|-----|-------|---|------|-------|-------|------|------|------|-----|------|------|-----|
| ZAHL | SZ | 19 | 246 | EP | | 1512 | 7.16 | 0.06 | 26 | | | | | | 1.0 |
| BHL | BZ | 39 | 266 | EP | | 1512 | 9.99 | -0.14 | | | | | | | 1.0 |
| BHL | BN | 39 | 266 | ES | | 1512 | 14.88 | -0.01 | | | | | | | 1.0 |
| HWQ | SZ | 41 | 343 | EP | | 1512 | 10.43 | 0.02 | | | | | | | 1.0 |
| RCY | SZ | 53 | 205 | EP | | 1512 | 12.36 | 0.05 | | | | | | | 1.0 |
| RCY | SN | 53 | 205 | ES | | 1512 | 18.61 | -0.08 | | | | | | | 1.0 |
| DQRL | SZ | 53 | 242 | EP | | 1512 | 12.46 | 0.15 | | | | | | | 1.0 |
| BEIL | SZ | 69 | 8 | EP | | 1512 | 14.85 | -0.04 | | | | | | | 1.0 |
| SHBL | SZ | 71 | 206 | EP | | 1512 | 15.24 | -0.02 | | | | | | | 1.0 |

July 23 2017 Hour: 17:32 18.4 Agency: REL Distant

EMSC OT=17:32:18.4 30.11N 57.72E 48Km M=5.2 EASTERN IRAN

| STAT | CO | DIST | AZI | PHASE | P | HRMN | SECON | TRES | CODA | AMPL | PERI | BAZ | ARES | VELO | WT |
|------|----|------|-----|-------|---|------|-------|------|------|------|------|-----|------|------|----|
| BEIL | SZ | | | EP | | 1736 | 34.67 | | | | | | | | |
| ZAHL | SZ | | | EP | | 1736 | 35.76 | | | | | | | | |
| HWQ | SZ | | | EP | | 1736 | 35.83 | | | | | | | | |
| SHBL | SZ | | | EP | | 1736 | 36.27 | | | | | | | | |
| BHL | BZ | | | EP | | 1736 | 38.52 | | | | | | | | |

July 27 2017 Hour: 15:42 37.1 Lat: 34.01N Lon: 35.74E Depth: 0 Agency: REL Local
Magnitudes: 3.0MC REL Rms: 0.1 secs

KESROUAN REGION

| STAT | CO | DIST | AZI | PHASE | P | HRMN | SECON | TRES | CODA | AMPL | PERI | BAZ | ARES | VELO | WT |
|------|----|------|-----|-------|---|------|-------|-------|------|------|------|-----|------|------|-----|
| BHL | BZ | 14 | 214 | EP | | 1542 | 39.32 | -0.00 | 58 | | | | | | 1.0 |
| ZAHL | SZ | 21 | 140 | EP | | 1542 | 40.50 | -0.08 | | | | | | | 1.0 |
| ZAHL | SN | 21 | 140 | ES | | 1542 | 43.14 | 0.00 | | | | | | | 1.0 |
| HWQ | SZ | 36 | 33 | EP | | 1542 | 42.71 | -0.19 | | | | | | | 1.0 |
| DQRL | SZ | 37 | 205 | EP | | 1542 | 43.09 | 0.05 | | | | | | | 1.0 |
| RCY | SZ | 57 | 171 | EP | | 1542 | 46.43 | 0.08 | | | | | | | 1.0 |
| BEIL | SZ | 72 | 35 | EP | | 1542 | 48.73 | -0.05 | | | | | | | 1.0 |
| BEIL | SN | 72 | 35 | ES | | 1542 | 57.61 | 0.19 | | | | | | | 1.0 |

July 27 2017 Hour: 17:53 27.1 Agency: REL Distant

EMSC OT=17:53:27.1 13.48N 49.22W 20Km M=5.9 NORTH ATLANTIC OCEAN

| STAT | CO | DIST | AZI | PHASE | P | HRMN | SECON | TRES | CODA | AMPL | PERI | BAZ | ARES | VELO | WT |
|------|----|------|-----|-------|---|------|-------|------|------|------|------|-----|------|------|----|
| BHL | BZ | | | EP | | 18 5 | 26.16 | | | | | | | | |
| DQRL | SZ | | | EP | | 18 5 | 26.89 | | | | | | | | |
| QRWL | SZ | | | EP | | 18 5 | 27.48 | | | | | | | | |
| ZAHL | SZ | | | EP | | 18 5 | 28.46 | | | | | | | | |

July 29 2017 Hour: 0:31 57.2 Lat: 34.29N Lon: 34.51E Depth: 15 Agency: REL Regional
Magnitudes: 3.2MC REL Rms: 0.1 secs

OFFSHORE CENTRAL LEBANON

| STAT | CO | DIST | AZI | PHASE | P | HRMN | SECON | TRES | CODA | AMPL | PERI | BAZ | ARES | VELO | WT |
|------|----|------|-----|-------|---|------|-------|-------|------|------|------|-----|------|------|-----|
| BHL | BZ | 114 | 112 | EP | | 032 | 14.89 | -0.09 | | | | | | | 1.0 |
| DQRL | SZ | 117 | 123 | EP | | 032 | 15.36 | -0.13 | 68 | | | | | | 1.0 |
| HWQ | SZ | 132 | 90 | EP | | 032 | 17.75 | 0.06 | | | | | | | 1.0 |
| ZAHL | SZ | 136 | 110 | EP | | 032 | 18.19 | -0.00 | | | | | | | 1.0 |
| ZAHL | SN | 136 | 110 | ES | | 032 | 33.76 | 0.06 | | | | | | | 1.0 |
| SHBL | SZ | 155 | 132 | EP | | 032 | 21.09 | 0.09 | | | | | | | 1.0 |
| BEIL | SZ | 157 | 79 | EP | | 032 | 21.28 | 0.06 | | | | | | | 1.0 |
| BEIL | SN | 157 | 79 | ES | | 032 | 38.91 | -0.06 | | | | | | | 1.0 |

July 29 2017 Hour: 12:55 18.2 Lat: 33.78N Lon: 35.77E Depth: 0 Agency: REL Local
Magnitudes: 2.7MC REL Rms: 0.0 secs

ALEY REGION

| STAT | CO | DIST | AZI | PHASE | P | HRMN | SECON | TRES | CODA | AMPL | PERI | BAZ | ARES | VELO | WT |
|------|----|------|-----|-------|---|------|-------|-------|------|------|------|-----|------|------|-----|
| ZAHL | SZ | 14 | 49 | EP | | 1255 | 20.42 | -0.03 | | | | | | | 1.0 |
| BHL | BZ | 18 | 322 | EP | | 1255 | 21.06 | -0.04 | 41 | | | | | | 1.0 |
| BHL | BE | 18 | 322 | ES | | 1255 | 23.26 | 0.02 | | | | | | | 1.0 |
| DQRL | SZ | 20 | 247 | EP | | 1255 | 21.50 | 0.02 | | | | | | | 1.0 |
| QRWL | SZ | 27 | 198 | EP | | 1255 | 22.49 | -0.02 | | | | | | | 1.0 |
| RCY | SZ | 32 | 169 | EP | | 1255 | 23.30 | -0.00 | | | | | | | 1.0 |
| RCY | SN | 32 | 169 | ES | | 1255 | 27.09 | 0.02 | | | | | | | 1.0 |
| HWQ | SZ | 58 | 16 | EP | | 1255 | 27.48 | -0.07 | | | | | | | 1.0 |
| HWQ | SN | 58 | 16 | ES | | 1255 | 34.49 | 0.02 | | | | | | | 1.0 |
| BEIL | SZ | 93 | 24 | EP | | 1255 | 33.29 | 0.08 | | | | | | | 1.0 |

July 30 2017 Hour: 7:2 14.0 Agency: REL Regional
EMSC OT=07:02:14.0 36.99N 27.59E 5Km M=4.2 DODECANESE-TURKEYBORDER REGION

| STAT | CO | DIST | AZI | PHASE | P | HRMN | SECON | TRES | CODA | AMPL | PERI | BAZ | ARES | VELO | WT |
|------|----|------|-----|-------|---|------|-------|------|------|------|------|-----|------|------|----|
| HWQ | SZ | | | EP | | 7 4 | | 1.57 | | | | | | | |
| BEIL | SZ | | | EP | | 7 4 | | 3.28 | | | | | | | |
| SHBL | SZ | | | EP | | 7 4 | | 4.70 | | | | | | | |

July 30 2017 Hour: 17:51 18.4 Agency: REL Regional
EMSC OT=17:51:18.4 37.00N 27.64E 5Km M=4.4 WESTERN TURKEY

| STAT | CO | DIST | AZI | PHASE | P | HRMN | SECON | TRES | CODA | AMPL | PERI | BAZ | ARES | VELO | WT |
|------|----|------|-----|-------|---|------|-------|------|------|------|------|-----|------|------|----|
| DQRL | SZ | | | EP | | 1753 | | 4.89 | | | | | | | |
| HWQ | SZ | | | EP | | 1753 | | 5.35 | | | | | | | |
| ZAHL | SZ | | | EP | | 1753 | | 6.91 | | | | | | | |
| BEIL | SZ | | | EP | | 1753 | | 6.96 | | | | | | | |
| RCY | SZ | | | EP | | 1753 | | 8.83 | | | | | | | |
| SHBL | SZ | | | EP | | 1753 | | 9.12 | | | | | | | |

July 30 2017 Hour: 21:0 48.0 Agency: REL Distant
EMSC OT=21:00:48.0 46.22N 150.99E 80Km M=5.7 KURIL ISLANDS

| STAT | CO | DIST | AZI | PHASE | P | HRMN | SECON | TRES | CODA | AMPL | PERI | BAZ | ARES | VELO | WT |
|------|----|------|-----|-------|---|------|-------|-------|------|------|------|-----|------|------|----|
| BEIL | SZ | | | EP | | 2112 | | 51.97 | | | | | | | |
| HWQ | SZ | | | EP | | 2112 | | 53.13 | | | | | | | |
| ZAHL | SZ | | | EP | | 2112 | | 55.81 | | | | | | | |
| BHL | BZ | | | EP | | 2112 | | 55.87 | | | | | | | |
| DQRL | SZ | | | EP | | 2112 | | 57.15 | | | | | | | |
| QRWL | SZ | | | EP | | 2112 | | 57.46 | | | | | | | |

July 30 2017 Hour: 21:15 30.1 Agency: REL Distant
EMSC OT=21:15:30.1 28.73S 177.10W 150Km M=5.1 KERMADEC ISLANDS REGION

| STAT | CO | DIST | AZI | PHASE | P | HRMN | SECON | TRES | CODA | AMPL | PERI | BAZ | ARES | VELO | WT |
|------|----|------|-----|-------|---|------|-------|------|------|------|------|-----|------|------|----|
| BEIL | SZ | | | EP | | 2135 | | 7.65 | | | | | | | |
| HWQ | SZ | | | EP | | 2135 | | 7.69 | | | | | | | |
| BHL | BZ | | | EP | | 2135 | | 8.63 | | | | | | | |
| SHBL | SZ | | | EP | | 2135 | | 8.93 | | | | | | | |
| DQRL | SZ | | | EP | | 2135 | | 9.24 | | | | | | | |

July 31 2017 Hour: 15:38 27.6 Lat: 33.79N Lon: 35.77E Depth: 3 Agency: REL Local
Magnitudes: 2.6MC REL Rms: 0.1 secs

ALEY REGION

| STAT | CO | DIST | AZI | PHASE | P | HRMN | SECON | TRES | CODA | AMPL | PERI | BAZ | ARES | VELO | WT |
|------|----|------|-----|-------|---|------|-------|-------|------|------|------|-----|------|------|-----|
| ZAHL | SZ | 13 | 57 | EP | | 1538 | 29.82 | -0.03 | | | | | | | 1.0 |
| BHL | BZ | 16 | 319 | EP | | 1538 | 30.31 | -0.01 | 34 | | | | | | 1.0 |
| DQRL | SZ | 21 | 242 | EP | | 1538 | 30.96 | -0.08 | | | | | | | 1.0 |
| DQRL | SN | 21 | 242 | ES | | 1538 | 33.61 | 0.04 | | | | | | | 1.0 |
| QRWL | SZ | 28 | 196 | EP | | 1538 | 32.33 | 0.08 | | | | | | | 1.0 |
| RCY | SZ | 34 | 169 | EP | | 1538 | 33.00 | -0.08 | | | | | | | 1.0 |
| RCY | SN | 34 | 169 | ES | | 1538 | 37.18 | 0.06 | | | | | | | 1.0 |
| SHBL | SZ | 49 | 183 | EP | | 1538 | 35.57 | -0.05 | | | | | | | 1.0 |

HWQ SZ 56 17 EP 1538 36.78 0.07

1.0

July 31 2017 Hour: 21:29 12.2

Agency: REL Regional

EMSC OT=21:29:12.2 34.39N 24.01E 20Km M=5.3 CRETE, GREECE

| STAT | CO | DIST | AZI | PHASE | P | HRMN | SECON | TRES | CODA | AMPL | PERI | BAZ | ARES | VELO | WT |
|------|----|------|-----|-------|---|------|-------|------|------|------|------|-----|------|------|----|
| DQRL | SZ | | | EP | | 2131 | 26.98 | | | | | | | | |
| BHL | BZ | | | EP | | 2131 | 28.16 | | | | | | | | |
| QRWL | SZ | | | EP | | 2131 | 27.73 | | | | | | | | |
| SHBL | SZ | | | EP | | 2131 | 29.24 | | | | | | | | |
| RCY | SZ | | | EP | | 2131 | 29.88 | | | | | | | | |
| ZAHL | SZ | | | EP | | 2131 | 30.85 | | | | | | | | |
| HWQ | SZ | | | EP | | 2131 | 31.17 | | | | | | | | |
| BEIL | SZ | | | EP | | 2131 | 32.46 | | | | | | | | |

Epicentral Map of Lebanon

JULY 2017

