

Republic of Lebanon
National Council for Scientific Research

Provisional Seismological Bulletin

from the

NATIONAL SEISMIC NETWORK

June

2018

Prepared by
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GENERAL BULLETIN INFORMATION

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

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

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

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

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

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

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

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

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

June 1 2018 Hour: 17:15 40.4 Lat: 33.79N Lon: 35.76E Depth: 0 Agency: REL Local
Magnitudes: 2.8MC REL Rms: 0.0 secs

ALEY REGION

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
BHL	BZ	17	322	EP		1715	43.05	0.00	47						1.0
BEYL	SZ	27	291	EP		1715	44.86	0.15							0.2
QRWL	SZ	28	196	EP		1715	44.80	-0.04							1.0
RCY	SZ	33	168	EP		1715	45.72	0.03							1.0
SHBL	SZ	49	182	EP		1715	48.21	-0.03							1.0
SHBL	SN	49	182	ES		1715	54.06	0.01							1.0
HWQ	BZ	57	17	EP		1715	49.56	-0.01							1.0
HWQ	BN	57	17	ES		1715	56.37	0.00							1.0

June 3 2018 Hour: 23:15 20.7 Lat: 33.79N Lon: 35.81E Depth: 5 Agency: REL Local
Magnitudes: 2.8MC REL Rms: 0.0 secs

ZAHLE REGION

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
BHL	BZ	19	310	EP		2315	23.96	-0.01							1.0
DQRL	SZ	25	246	EP		2315	24.85	0.03	45						1.0
QRWL	SZ	30	204	EP		2315	25.59	-0.07							1.0
RCY	SZ	33	176	EP		2315	26.16	-0.02							1.0
RCY	SN	33	176	ES		2315	30.25	0.03							1.0
HWQ	BZ	55	13	EP		2315	29.67	0.00							1.0
HWQ	BN	55	13	ES		2315	36.29	0.01							1.0

June 4 2018 Hour: 17:19 52.3 Lat: 34.07N Lon: 35.93E Depth: 14 Agency: REL Local
Magnitudes: 2.8MC REL Rms: 0.3 secs

JBEIL REGION

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
HWQ	BZ	23	5	EP		1719	56.81	0.07							1.0
BHL	BZ	31	234	EP		1719	57.79	-0.10							1.0
FKH	SZ	49	67	EP		1720	0.39	-0.05							1.0
DQRL	SZ	52	219	EP		1720	0.96	-0.01							1.0
QRWL	SZ	62	201	EP		1720	2.40	-0.05	43						1.0
RCY	SZ	64	188	EP		1720	2.68	-0.10							1.0
RCY	SN	64	188	ES		1720	10.50	-0.03							1.0
SHBL	SZ	82	192	EP		1720	5.45	0.08							1.0
SHBL	SN	82	192	ES		1720	15.14	0.09							1.0

June 5 2018 Hour: 18:40 28.0 Agency: REL Distant
EMSC OT=18:40:28.0 41.61N 46.85E 10Km M=5.3 AZERBAIJAN

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
HWQ	BZ			EP		1843	10.45								
BHL	BZ			EP		1843	16.35								
ZAHL	SZ			EP		1843	16.49								
DQRL	SZ			EP		1843	20.60								

June 6 2018 Hour: 14: 1 19.1 Lat: 33.78N Lon: 35.78E Depth: 3 Agency: REL Local
Magnitudes: 2.5MC 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	13	51	EP		14	1	21.36	0.02						1.0
BHL	BZ	18	320	EP		14	1	22.02	0.01	29					1.0
BHL	BN	18	320	ES		14	1	24.12	-0.04						1.0
DQRL	SZ	21	246	EP		14	1	22.54	0.02						1.0
DQRL	SN	21	246	ES		14	1	25.07	0.02						1.0
QRWL	SZ	27	198	EP		14	1	23.54	-0.03						1.0
RCY	SZ	32	170	EP		14	1	24.33	-0.01						1.0
HWQ	BZ	57	16	EP		14	1	28.36	0.01						1.0

June 6 2018 Hour: 14:14 55.2 Lat: 34.03N Lon: 35.75E Depth: 0 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	17	210	EP		1414	57.88	-0.05	38						1.0
BHL	BN	17	210	ES		1414	59.89	-0.05							1.0
ZAHL	SZ	24	147	EP		1414	58.93	-0.07							1.0
HWQ	BZ	33	34	EP		1415	0.47	-0.01							1.0
DQRL	SZ	40	204	EP		1415	1.75	0.08							1.0
QRWL	SZ	54	186	EP		1415	4.02	0.04							1.0
RCY	SZ	60	172	EP		1415	5.00	0.06							1.0
RCY	SN	60	172	ES		1415	12.14	0.00							1.0

June 7 2018 Hour: 17:20 51.0 Lat: 34.04N Lon: 35.95E Depth: 1 Agency: REL Local
Magnitudes: 2.8MC REL Rms: 0.0 secs

KESROUAN REGION

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
ZAHL	SZ	21	197	EP		1720	54.48	-0.02							1.0
HWQ	BZ	26	359	EP		1720	55.25	0.02	46						1.0
HWQ	BN	26	359	ES		1720	58.39	0.04							1.0
BHL	BZ	32	241	EP		1720	56.10	-0.01							1.0
BHL	BN	32	241	ES		1720	59.85	-0.03							1.0
FKH	SZ	48	62	EP		1720	58.66	-0.07							1.0
DQRL	SZ	52	223	EP		1720	59.26	-0.05							1.0
BEIL	SZ	59	21	EP		1721	0.56	-0.01							1.0
QRWL	SZ	60	204	EP		1721	0.76	0.01							1.0
RCY	SZ	62	190	EP		1721	0.99	0.04							1.0
SHBL	SZ	79	194	EP		1721	3.91	0.08							1.0

June 7 2018 Hour: 23:47 20.0 Lat: 32.56N Lon: 35.58E Depth: 0 Agency: REL Regional
Magnitudes: 3.5MC REL Rms: 0.1 secs

DEAD SEA REGION

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
SHBL	SZ	88	10	EP		2347	34.21	-0.02							1.0
RCY	SZ	106	13	EP		2347	37.07	-0.04							1.0
QRWL	SZ	109	5	EP		2347	37.68	0.04							1.0
DQRL	SZ	127	360	EP		2347	40.35	-0.04	101						1.0
DQRL	SN	127	360	ES		2347	55.56	0.07							1.0
ZAHL	SZ	146	11	EP		2347	43.44	0.01							1.0
ZAHL	SN	146	11	ES		2348	0.74	-0.04							1.0
BHL	BZ	149	3	EP		2347	43.71	-0.06							1.0
HWQ	BZ	193	10	EP		2347	50.18	0.07							1.0
FKH	SZ	202	22	EP		2347	51.23	0.03							1.0
BEIL	SZ	226	14	EP		2347	54.43	0.24							0.2
BEIL	SN	226	14	ES		2348	19.24	-0.27							0.2

June 8 2018 Hour: 14:14 36.0 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	48	EP		1414	38.12	-0.11							1.0
BHL	BZ	18	322	EP		1414	38.89	-0.04	38						1.0
DQRL	SZ	20	248	EP		1414	39.30	-0.01							1.0
QRWL	SZ	27	199	EP		1414	40.34	0.03							1.0
RCY	SZ	31	170	EP		1414	41.11	0.03							1.0
HWQ	BZ	58	16	EP		1414	45.36	0.00							1.0
HWQ	BN	58	16	ES		1414	52.34	0.06							1.0
BEIL	SZ	93	24	EP		1414	51.01	-0.00							1.0
BEIL	SN	93	24	ES		1415	2.16	0.04							1.0

June 8 2018 Hour: 14:29 42.5 Lat: 34.04N Lon: 35.74E Depth: 3 Agency: REL Local
Magnitudes: 2.7MC REL Rms: 0.0 secs

KESROUAN REGION

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
BHL	BZ	18	208	EP		1429	45.38	-0.06	40						1.0
ZAHL	SZ	24	148	EP		1429	46.49	-0.03							1.0
HWQ	BZ	32	36	EP		1429	47.70	-0.01							1.0
HWQ	BN	32	36	ES		1429	51.61	0.05							1.0
DQRL	SZ	41	203	EP		1429	49.21	0.08							1.0
RCY	SZ	61	172	EP		1429	52.44	0.01							1.0
RCY	SN	61	172	ES		1429	59.78	0.01							1.0
BEIL	SZ	69	36	EP		1429	53.51	-0.06							1.0

June 8 2018 Hour: 23:3 34.6 Lat: 33.80N Lon: 35.81E 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	10	50	EP		23 3	37.42	-0.03	37						1.0
BHL	BZ	18	309	EP		23 3	38.38	0.05							1.0
DQRL	SZ	24	244	EP		23 3	39.13	-0.04							1.0
RCY	SZ	34	175	EP		23 3	40.53	-0.07							1.0
RCY	SN	34	175	ES		23 3	45.12	0.07							1.0
HWQ	BZ	54	14	EP		23 3	43.59	-0.01							1.0
HWQ	BN	54	14	ES		23 3	50.29	0.02							1.0

June 9 2018 Hour: 2:29 21.2 Lat: 32.82N Lon: 35.74E Depth: 0 Agency: REL Regional
Magnitudes: 2.7MC REL Rms: 0.0 secs

DEAD SEA REGION

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
SHBL	SZ	59	0	EP		229	30.57	-0.08							1.0
RCY	SZ	76	7	EP		229	33.39	0.00	36						1.0
RCY	SN	76	7	ES		229	42.42	-0.02							1.0
QRWL	SZ	81	356	EP		229	34.28	0.03							1.0
DQRL	SZ	100	351	EP		229	37.24	-0.01							1.0
DQRL	SN	100	351	ES		229	49.18	0.03							1.0
ZAHL	SZ	116	7	EP		229	39.92	0.02							1.0
BHL	BZ	121	356	EP		229	40.59	-0.05							1.0
HWQ	BZ	163	7	EP		229	47.13	0.05							1.0
BEIL	SZ	196	12	EP		229	51.56	0.01							1.0

June 9 2018 Hour: 4:14 33.1 Lat: 33.30N Lon: 35.55E Depth: 12 Agency: REL Local
Magnitudes: 2.4MC REL Rms: 0.0 secs

MARJAAYOUN REGION

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
QRWL	SZ	30	24	EP		414	38.27	-0.07							1.0
RCY	SZ	34	51	EP		414	39.08	0.06	25						1.0
RCY	SN	34	51	ES		414	43.42	-0.01							1.0
DQRL	SZ	45	2	EP		414	40.62	0.01							1.0
DQRL	SN	45	2	ES		414	46.21	0.02							1.0
BHL	BZ	68	8	EP		414	44.06	-0.01							1.0

June 9 2018 Hour: 11:15 22.8 Lat: 33.98N Lon: 35.72E Depth: 29 Agency: REL Local
Magnitudes: 2.7MC REL Rms: 0.0 secs

KESROUAN REGION

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
BHL	BZ	10	213	EP		1115	27.80	0.05	41						1.0
BHL	BN	10	213	ES		1115	31.39	-0.03							1.0
ZAHL	SZ	21	131	EP		1115	28.55	0.04							1.0
DQRL	SZ	34	204	EP		1115	29.76	0.00							1.0
HWQ	BZ	39	33	EP		1115	30.45	0.01							1.0
HWQ	BN	39	33	ES		1115	36.09	-0.00							1.0
RCY	SZ	55	168	EP		1115	32.45	-0.03							1.0
BEIL	SZ	76	35	EP		1115	35.22	-0.03							1.0

June 9 2018 Hour: 12:35 36.9 Lat: 33.79N Lon: 35.77E Depth: 4 Agency: REL Local
Magnitudes: 2.5MC 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	13	56	EP		1235	39.23	0.01							1.0
BHL	BZ	16	319	EP		1235	39.67	-0.04	30						1.0
DQRL	SZ	21	243	EP		1235	40.43	0.04							1.0
RCY	SZ	33	169	EP		1235	42.31	-0.07							1.0
RCY	SN	33	169	ES		1235	46.45	0.03							1.0
HWQ	BZ	56	17	EP		1235	46.11	0.06							1.0
HWQ	BN	56	17	ES		1235	52.79	-0.02							1.0

June 10 2018 Hour: 11:23 37.2 Lat: 34.70N Lon: 36.13E Depth: 8 Agency: REL Regional
Magnitudes: 2.5MC 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	18	163	EP		1123	40.58	0.09	31						1.0
BEIL	SE	18	163	ES		1123	42.87	-0.05							1.0
HWQ	BZ	49	200	EP		1123	45.24	-0.09							1.0
HWQ	BN	49	200	ES		1123	51.39	0.05							1.0
ZAHL	SZ	96	193	EP		1123	52.64	-0.01							1.0
BHL	BZ	98	206	EP		1123	53.04	0.05							1.0
DQRL	SZ	121	205	EP		1123	56.38	-0.03							1.0

June 12 2018 Hour: 1:27 44.1 Lat: 33.89N Lon: 35.86E Depth: 0 Agency: REL Local
Magnitudes: 2.8MC 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	4	151	EP		127	44.81	-0.05							1.0
BHL	BZ	19	274	EP		127	47.20	-0.07	44						1.0
BHL	BN	19	274	ES		127	49.63	0.04							1.0
DQRL	SZ	34	233	EP		127	49.58	-0.06							1.0
QRWL	SZ	42	204	EP		127	50.95	0.08							1.0
HWQ	BZ	44	10	EP		127	51.16	-0.00							1.0
RCY	SZ	44	183	EP		127	51.22	-0.01							1.0
RCY	SN	44	183	ES		127	56.47	-0.00							1.0
SHBL	SZ	61	190	EP		127	54.06	0.03							1.0
BEIL	SZ	78	22	EP		127	56.74	0.03							1.0

June 13 2018 Hour: 12:53 52.3 Lat: 33.51N Lon: 35.69E Depth: 1 Agency: REL Local
Magnitudes: 2.7MC REL Rms: 0.0 secs

WEST BEKAA REGION

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
QRWL	SZ	4	354	EP		1253	53.05	-0.02							1.0
RCY	SZ	14	96	EP		1253	54.58	0.01	41						1.0
RCY	SN	14	96	ES		1253	56.28	0.01							1.0
DQRL	SZ	24	334	EP		1253	56.28	0.06							1.0
ZAHL	SZ	43	25	EP		1253	59.10	-0.10							1.0
ZAHL	SE	43	25	ES		1254	4.36	0.04							1.0
HWQ	BZ	89	16	EP		1254	6.56	-0.01							1.0

June 13 2018 Hour: 15:15 14.1 Lat: 33.29N Lon: 35.50E Depth: 0 Agency: REL Local
Magnitudes: 2.9MC REL Rms: 0.1 secs

MARJAAYOUN REGION

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
QRWL	SZ	33	31	EP		1515	19.47	0.00							1.0
RCY	SZ	39	54	EP		1515	20.44	0.07	49						1.0
RCY	SN	39	54	ES		1515	24.99	-0.04							1.0
DQRL	SZ	47	8	EP		1515	21.52	-0.08							1.0
DQRL	SN	47	8	ES		1515	27.21	0.05							1.0
BHL	BZ	70	12	EP		1515	25.29	-0.03							1.0
ZAHL	SZ	73	30	EP		1515	25.80	0.01							1.0
HWQ	BZ	117	21	EP		1515	33.28	0.29							0.2

BEIL SZ 153 24 EP 1515 38.54 0.11 0.2

June 16 2018 Hour: 3:23 31.8 Agency: REL Distant

EMSC OT=03:23:31.8 16.27S 177.60W 10Km M=6.0 FIJI REGION

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
BEIL	SZ			EP		343	8.10								
HWQ	BZ			EP		343	10.43								
ZAHL	SZ			EP		343	10.52								
BHL	BZ			EP		343	11.22								
DQRL	SZ			EP		343	12.67								

June 16 2018 Hour: 6:32 24.7 Agency: REL Distant

EMSC OT=06:32:24.7 32.79S 178.22W 2Km M=5.3 SOUTH OF KERMADEC ISLANDS

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
BEIL	SZ			EP		652	20.73								
HWQ	BZ			EP		652	20.39								
ZAHL	SZ			EP		652	21.53								
BHL	BZ			EP		652	21.41								
RCY	SZ			EP		652	21.61								
DQRL	SZ			EP		652	22.02								

June 16 2018 Hour: 15:39 46.5 Lat: 34.30N Lon: 36.18E Depth: 15 Agency: REL Local
Magnitudes: 2.5MC REL Rms: 0.1 secs

HERMEL REGION

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
HWQ	BZ	22	263	EP		1539	50.85-0.04		31						1.0
HWQ	BN	22	263	ES		1539	54.17	0.02							1.0
BEIL	SZ	27	0	EP		1539	51.43-0.01								1.0
BEIL	SN	27	0	ES		1539	55.12	0.02							1.0
ZAHL	SZ	56	209	EP		1539	55.45-0.36								0.2
BHL	BZ	66	228	EP		1539	57.44	0.27							0.2
RCY	SZ	95	200	EP		1540	1.89	0.41							0.2

June 17 2018 Hour: 7:27 34.1 Agency: REL Regional

EMSC OT=07:27:34.1 37.31N 30.36E 7Km M=3.4 WESTERN TURKEY

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
HWQ	BZ			EP		728	49.70								
BEIL	SZ			EP		728	49.61								
BHL	BZ			EP		728	49.38								
DQRL	SZ			EP		728	50.19								
ZAHL	SZ			EP		728	52.42								
RCY	SZ			EP		728	55.22								

June 17 2018 Hour: 15: 9 36.2 Lat: 33.79N Lon: 35.78E Depth: 0 Agency: REL Local
Magnitudes: 2.9MC 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	12	55	EP		15	9	38.16-0.00		56					1.0
BHL	BZ	17	317	EP		15	9	38.81-0.05							1.0
DQRL	SZ	22	243	EP		15	9	39.65	0.01						1.0
DQRL	SN	22	243	ES		15	9	42.25	0.03						1.0
QRWL	SZ	29	198	EP		15	9	40.79-0.01							1.0
RCY	SZ	34	171	EP		15	9	41.51-0.06							1.0
RCY	SN	34	171	ES		15	9	45.61	0.03						1.0
HWQ	BZ	56	16	EP		15	9	45.21	0.03						1.0
BEIL	SZ	91	24	EP		15	9	50.86	0.02						1.0

June 17 2018 Hour: 15:41 26.9 Lat: 33.74N Lon: 34.97E Depth: 26 Agency: REL Local
Magnitudes: 3.0MC REL Rms: 0.0 secs

OFFSHORE CENTRAL LEBANON

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
DQRL	SZ	56	93	EP		1541	36.47-0.02		55						1.0
DQRL	SN	56	93	ES		1541	43.57-0.00								1.0
BHL	BZ	66	73	EP		1541	38.00	0.07							1.0

QRWL	SZ	69	107	EP	1541	38.38	0.01										1.0
RCY	SZ	85	108	EP	1541	40.58	-0.01										1.0
RCY	SN	85	108	ES	1541	50.71	-0.00										1.0
ZAHL	SZ	86	81	EP	1541	40.78	0.02										1.0
HWQ	BZ	108	56	EP	1541	43.97	-0.05										1.0
BEIL	SZ	143	51	EP	1541	48.43	0.01										1.0

June 17 2018 Hour: 17:57 20.5 Lat: 33.69N Lon: 35.95E Depth: 15 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	19	341	EP		1757	24.58	0.02							1.0
RCY	SZ	24	207	EP		1757	25.21	0.00	31						1.0
RCY	SN	24	207	ES		1757	28.67	-0.02							1.0
DQRL	SZ	36	272	EP		1757	26.79	0.05							1.0
DQRL	SN	36	272	ES		1757	31.36	0.00							1.0
BHL	BZ	36	310	EP		1757	26.78	-0.07							1.0
SHBL	SZ	43	207	EP		1757	27.86	0.03							1.0
SHBL	SN	43	207	ES		1757	33.24	-0.02							1.0
HWQ	BZ	65	359	EP		1757	30.94	-0.11							0.2

June 19 2018 Hour: 14:11 32.4 Lat: 34.11N Lon: 35.99E Depth: 0 Agency: REL Local
Magnitudes: 3.0MC REL Rms: 0.1 secs

JBEIL REGION

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
HWQ	BZ	19	348	EP		1411	35.45	-0.02	57						1.0
ZAHL	SZ	30	199	EP		1411	37.07	-0.12							1.0
BHL	BZ	39	234	EP		1411	38.65	0.02							1.0
BEIL	SZ	51	20	EP		1411	40.69	0.05							1.0
DQRL	SZ	59	221	EP		1411	41.96	-0.02							1.0
DQRL	SN	59	221	ES		1411	49.10	0.03							1.0
RCY	SZ	70	192	EP		1411	43.63	-0.00							1.0
RCY	SN	70	192	ES		1411	52.00	0.06							1.0

June 20 2018 Hour: 13:17 38.4 Lat: 33.78N Lon: 35.78E Depth: 0 Agency: REL Local
Magnitudes: 2.9MC 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	47	EP		1317	40.59	0.01							1.0
BHL	BZ	18	321	EP		1317	41.31	-0.05	50						1.0
DQRL	SZ	21	248	EP		1317	41.81	0.08							1.0
QRWL	SZ	27	200	EP		1317	42.67	-0.02							1.0
RCY	SZ	31	170	EP		1317	43.42	-0.01							1.0
HWQ	BZ	58	15	EP		1317	47.64	-0.08							1.0
HWQ	BN	58	15	ES		1317	54.62	-0.02							1.0
BEIL	SZ	93	24	EP		1317	53.37	0.00							1.0
BEIL	SN	93	24	ES		1318	4.55	0.09							1.0

June 20 2018 Hour: 13:26 9.5 Lat: 33.78N Lon: 35.78E 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	13	49	EP		1326	11.65	0.02							1.0
BHL	BZ	18	320	EP		1326	12.34	-0.06	41						1.0
DQRL	SZ	21	247	EP		1326	12.95	0.07							1.0
RCY	SZ	32	170	EP		1326	14.59	-0.04							1.0
HWQ	BZ	57	16	EP		1326	18.77	0.01							1.0
HWQ	BN	57	16	ES		1326	25.58	-0.04							1.0
BEIL	SZ	93	24	EP		1326	24.38	-0.03							1.0
BEIL	SN	93	24	ES		1326	35.51	0.06							1.0

June 20 2018 Hour: 23:23 28.8 Agency: REL Distant
EMSC OT=23:23:28.8 22.38S 175.15W 30Km M=5.4 TONGA REGION
 STAT CO DIST AZI PHASE P HRMN SECON TRES CODA AMPL PERI BAZ ARES VELO WT
 HWQ BZ EP 2343 18.75
 BEIL SZ EP 2343 18.34
 BHL BZ EP 2343 17.93
 DQRL SZ EP 2343 19.54
 RCY SZ EP 2343 19.44

June 21 2018 Hour: 8:34 29.7 Lat: 33.86N Lon: 35.84E Depth: 0 Agency: REL Local
Magnitudes: 3.0MC 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 5 95 EP 834 30.42-0.01 1.0
 BHL BZ 17 286 EP 834 32.39-0.09 1.0
 BHL BN 17 286 ES 834 34.61 0.04 1.0
 DQRL SZ 30 235 EP 834 34.43-0.09 1.0
 DQRL SN 30 235 ES 834 38.16 0.04 1.0
 QRWL SZ 38 202 EP 834 35.83 0.09 1.0
 RCY SZ 41 180 EP 834 36.16-0.05 62 1.0
 RCY SN 41 180 ES 834 41.06 0.01 1.0
 HWQ BZ 47 12 EP 834 37.30 0.01 1.0
 BEIL SZ 82 23 EP 834 42.93 0.04 1.0

June 21 2018 Hour: 14:10 52.6 Lat: 34.03N Lon: 35.72E Depth: 8 Agency: REL Local
Magnitudes: 2.8MC 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 15 205 EP 1410 55.56 0.04 45 1.0
 BHL BN 15 205 ES 1410 57.67-0.04 1.0
 ZAHL SZ 24 142 EP 1410 56.74-0.05 1.0
 HWQ BZ 34 37 EP 1410 58.27-0.05 1.0
 HWQ BN 34 37 ES 1411 2.67 0.09 1.0
 DQRL SZ 39 202 EP 1410 59.02 0.01 1.0
 RCY SZ 60 170 EP 1411 2.50 0.10 1.0
 RCY SN 60 170 ES 1411 9.65-0.02 1.0
 BEIL SZ 71 37 EP 1411 4.00-0.08 1.0

June 21 2018 Hour: 15: 8 39.1 Lat: 33.78N Lon: 35.78E Depth: 7 Agency: REL Local
Magnitudes: 2.5MC 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 13 49 EP 15 8 41.68 0.02 1.0
 BHL BZ 18 320 EP 15 8 42.28-0.02 31 1.0
 BHL BN 18 320 ES 15 8 44.67-0.01 1.0
 DQRL SZ 21 247 EP 15 8 42.79 0.04 1.0
 QRWL SZ 27 199 EP 15 8 43.72 0.01 1.0
 RCY SZ 32 170 EP 15 8 44.41-0.04 1.0
 HWQ BZ 57 16 EP 15 8 48.46 0.01 1.0
 HWQ BN 57 16 ES 15 8 55.38-0.00 1.0

June 21 2018 Hour: 17:34 26.0 Lat: 34.10N Lon: 35.72E Depth: 23 Agency: REL Local
Magnitudes: 2.8MC REL Rms: 0.1 secs
JBEIL REGION
 STAT CO DIST AZI PHASE P HRMN SECON TRES CODA AMPL PERI BAZ ARES VELO WT
 BHL BZ 23 196 EP 1734 31.07-0.08 46 1.0
 BHL BN 23 196 ES 1734 34.98 0.02 1.0
 HWQ BZ 29 46 EP 1734 31.94 0.08 1.0
 HWQ BN 29 46 ES 1734 36.20 0.00 1.0
 ZAHL SZ 31 150 EP 1734 32.03-0.09 1.0
 DQRL SZ 46 198 EP 1734 34.12 0.07 1.0
 QRWL SZ 61 183 EP 1734 36.18-0.02 1.0
 BEIL SZ 65 41 EP 1734 36.67-0.03 1.0

RCY	SZ	68	171	EP		1734	37.11	-0.04										1.0
RCY	SN	68	171	ES		1734	45.47	0.06										1.0
SHBL	SZ	83	178	EP		1734	39.42	0.02										1.0

June 21 2018 Hour: 19:33 9.9 Agency: REL Distant

EMSC OT=19:33:09.9 22.80S 175.00W 10Km M=5.4 TONGA REGION

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
BEIL	SZ			EP		1953	3.25								
HWQ	BZ			EP		1953	3.82								
BHL	BZ			EP		1953	4.75								
ZAHL	SZ			EP		1953	5.43								
DQRL	SZ			EP		1953	5.35								
RCY	SZ			EP		1953	5.68								

June 21 2018 Hour: 21:13 32.6 Agency: REL Distant

EMSC OT=21:13:32.6 17.73S 168.20E 30Km M=6.1 VANUATU

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
BEIL	SZ			EP		2132	47.88								
HWQ	BZ			EP		2132	47.31								
BHL	BZ			EP		2132	47.97								
ZAHL	SZ			EP		2132	48.93								
DQRL	SZ			EP		2132	48.87								
RCY	SZ			EP		2132	49.11								

June 21 2018 Hour: 23:18 2.0 Lat: 33.81N Lon: 35.82E Depth: 16 Agency: REL Local

Magnitudes: 2.4MC 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	8	51	EP		2318	5.07	-0.08							1.0
ZAHL	SN	8	51	ES		2318	7.49	0.03							1.0
BHL	BZ	18	304	EP		2318	6.09	0.04	26						1.0
DQRL	SZ	26	243	EP		2318	6.92	-0.06							1.0
DQRL	SN	26	243	ES		2318	10.68	0.03							1.0
QRWL	SZ	32	203	EP		2318	7.76	-0.05							1.0
RCY	SZ	35	177	EP		2318	8.32	0.03							1.0
SHBL	SZ	52	188	EP		2318	10.75	0.04							1.0
HWQ	BZ	53	13	EP		2318	11.06	0.21							0.2

June 22 2018 Hour: 15:36 36.8 Lat: 33.79N Lon: 35.76E Depth: 0 Agency: REL Local

Magnitudes: 2.8MC 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		1536	38.93	-0.05							1.0
BHL	BZ	16	322	EP		1536	39.42	0.00							1.0
DQRL	SZ	20	243	EP		1536	40.01	-0.01							1.0
RCY	SZ	33	168	EP		1536	42.04	-0.06	44						1.0
RCY	SN	33	168	ES		1536	46.10	0.06							1.0
HWQ	BZ	57	17	EP		1536	45.99	0.04							1.0
HWQ	BN	57	17	ES		1536	52.76	0.02							1.0

June 22 2018 Hour: 20:57 43.7 Agency: REL Distant

EMSC OT=20:57:43.7 5.01S 108.36E 658Km M=5.3 JAVA SEA

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
BEIL	SZ			EP		21 8	39.38								
HWQ	BZ			EP		21 8	39.60								
ZAHL	SZ			EP		21 8	39.96								
RCY	SZ			EP		21 8	40.05								
BHL	BZ			EP		21 8	40.94								
DQRL	SZ			EP		21 8	41.25								

June 25 2018 Hour: 2:29 21.1 Agency: REL Distant
EMSC OT=02:29:21.1 18.84S 177.60W 565Km M=4.7 FIJI REGION
 STAT CO DIST AZI PHASE P HRMN SECON TRES CODA AMPL PERI BAZ ARES VELO WT
 BEIL SZ EP 247 59.31
 HWQ BZ EP 247 59.52
 ZAHL SZ EP 248 0.66
 BHL BZ EP 248 0.55
 DQRL SZ EP 248 1.61
 RCY SZ EP 248 0.93

June 25 2018 Hour: 5:14 45.9 Agency: REL Regional
EMSC OT=05:14:45.9 36.72N 21.37E 10Km M=5.5 SOUTHERN GREECE
 STAT CO DIST AZI PHASE P HRMN SECON TRES CODA AMPL PERI BAZ ARES VELO WT
 HWQ BZ EP 517 34.31
 RCY SZ EP 517 35.29
 BEIL SZ EP 517 36.29

June 25 2018 Hour: 10: 6 45.3 Lat: 33.79N Lon: 35.78E Depth: 12 Agency: REL Local
Magnitudes: 2.5MC 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 12 54 EP 10 6 48.27-0.05 32 1.0
 BHL BZ 17 317 EP 10 6 48.83 0.00 1.0
 DQRL SZ 22 243 EP 10 6 49.43-0.00 1.0
 RCY SZ 33 171 EP 10 6 51.11-0.04 1.0
 RCY SN 33 171 ES 10 6 55.52 0.06 1.0
 HWQ BZ 56 16 EP 10 6 54.64-0.01 1.0
 HWQ BN 56 16 ES 10 7 1.58 0.04 1.0

June 25 2018 Hour: 14:14 0.3 Lat: 33.78N Lon: 35.78E Depth: 4 Agency: REL Local
Magnitudes: 2.7MC 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 50 EP 1414 2.52 0.01 39 1.0
 BHL BZ 18 320 EP 1414 3.14-0.09 1.0
 DQRL SZ 21 246 EP 1414 3.84 0.09 1.0
 RCY SZ 32 170 EP 1414 5.44-0.07 1.0
 RCY SN 32 170 ES 1414 9.43 0.03 1.0
 HWQ BZ 57 16 EP 1414 9.51 0.00 1.0
 HWQ BN 57 16 ES 1414 16.39 0.04 1.0

June 25 2018 Hour: 17:21 14.2 Lat: 34.04N Lon: 35.94E Depth: 2 Agency: REL Local
Magnitudes: 2.7MC REL Rms: 0.0 secs
KESROUAN REGION
 STAT CO DIST AZI PHASE P HRMN SECON TRES CODA AMPL PERI BAZ ARES VELO WT
 ZAHL SZ 21 193 EP 1721 17.51-0.06 40 1.0
 HWQ BZ 27 2 EP 1721 18.54 0.00 1.0
 BHL BZ 30 240 EP 1721 19.12 0.03 1.0
 DQRL SZ 50 223 EP 1721 22.28-0.03 1.0
 BEIL SZ 60 22 EP 1721 23.94-0.01 1.0
 BEIL SN 60 22 ES 1721 31.18 0.02 1.0
 RCY SZ 61 189 EP 1721 23.98-0.05 1.0
 RCY SN 61 189 ES 1721 31.39 0.09 1.0

June 26 2018 Hour: 17:57 4.5 Agency: REL Distant
EMSC OT=17:57:04.5 34.57N 46.22E 10Km M=4.7 WESTERN IRAN
 STAT CO DIST AZI PHASE P HRMN SECON TRES CODA AMPL PERI BAZ ARES VELO WT
 BEIL SZ EP 1759 4.72
 HWQ BZ EP 1759 7.82
 RCY SZ EP 1759 11.05
 BHL BZ EP 1759 12.70
 DQRL SZ EP 1759 13.44

June 27 2018 Hour: 14: 9 58.5 Lat: 34.43N Lon: 36.87E Depth: 4 Agency: REL Regional
Magnitudes: 3.1MC REL Rms: 0.0 secs

SYRIA REGION

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
FKH	SZ	47	244	EP		1410	6.18	-0.03							1.0
BEIL	SZ	64	281	EP		1410	8.93	0.01	70						1.0
BEIL	SN	64	281	ES		1410	16.60	-0.02							1.0
HWQ	BZ	87	259	EP		1410	12.62	0.06							1.0
BHL	BZ	127	243	EP		1410	18.80	0.01							1.0
RCY	SZ	141	223	EP		1410	20.91	-0.04							1.0
RCY	SN	141	223	ES		1410	37.57	0.01							1.0

June 27 2018 Hour: 14:23 5.2 Lat: 34.43N Lon: 36.79E Depth: 0 Agency: REL Regional
Magnitudes: 3.1MC REL Rms: 0.1 secs

SYRIA REGION

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
FKH	SZ	41	240	EP		1423	11.70	-0.06							1.0
BEIL	SZ	57	283	EP		1423	14.47	0.07	64						1.0
BEIL	SN	57	283	ES		1423	21.24	0.01							1.0
HWQ	BZ	80	258	EP		1423	17.95	-0.08							1.0
RCY	SZ	136	221	EP		1423	27.20	0.05							1.0
RCY	SN	136	221	ES		1423	43.45	0.02							1.0

June 27 2018 Hour: 16: 1 8.1 Lat: 33.78N Lon: 35.78E Depth: 7 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	51	EP		16 1	10.60	-0.01							1.0
BHL	BZ	17	320	EP		16 1	11.11	-0.10	32						1.0
DQRL	SZ	21	246	EP		16 1	11.81	0.10							1.0
QRWL	SZ	28	198	EP		16 1	12.73	0.00							1.0
RCY	SZ	32	170	EP		16 1	13.48	-0.01							1.0
HWQ	BZ	57	16	EP		16 1	17.32	-0.08							1.0
HWQ	BN	57	16	ES		16 1	24.37	0.08							1.0
BEIL	SZ	92	24	EP		16 1	22.99	-0.03							1.0
BEIL	SN	92	24	ES		16 1	34.11	0.05							1.0

June 27 2018 Hour: 17:44 4.0 Agency: REL Distant

EMSC OT=17:44:04.0 18.04S 177.99W 514Km M=4.7 FIJI REGION

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
BEIL	SZ			EP		18 2	45.94								
HWQ	BZ			EP		18 2	46.11								
ZAHL	SZ			EP		18 2	47.22								
BHL	BZ			EP		18 2	46.98								
DQRL	SZ			EP		18 2	48.08								
RCY	SZ			EP		18 2	47.99								

June 27 2018 Hour: 18: 7 28.0 Agency: REL Regional

EMSC OT=18:07:28.0 36.07N 31.80E 72Km M=2.7 WESTERN TURKEY

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
BEIL	SZ			EP		18 8	24.22								
HWQ	BZ			EP		18 8	24.31								
BHL	BZ			EP		18 8	25.65								
RCY	SZ			EP		18 8	30.25								

June 27 2018 Hour: 22:59 4.9 Lat: 33.83N Lon: 35.83E Depth: 20 Agency: REL Local
Magnitudes: 2.8MC 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	6	59	EP		2259	8.37	-0.06							1.0
ZAHL	SN	6	59	ES		2259	11.06	0.04							1.0
BHL	BZ	18	298	EP		2259	9.29	-0.00							1.0
DQRL	SZ	27	240	EP		2259	10.43	0.07	47						1.0

DQRL	SN	27	240	ES		2259	14.34	-0.04										1.0
RCY	SZ	37	179	EP		2259	11.62	-0.00										1.0

June 28 2018 Hour: 13:20 23.0 Lat: 33.78N Lon: 35.78E Depth: 2 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	49	EP		1320	25.26	0.03							1.0
BHL	BZ	18	320	EP		1320	25.89	-0.07	33						1.0
DQRL	SZ	21	247	EP		1320	26.51	0.07							1.0
RCY	SZ	32	170	EP		1320	28.13	-0.07							1.0
RCY	SN	32	170	ES		1320	32.06	0.01							1.0
HWQ	BZ	57	16	EP		1320	32.35	0.07							1.0
HWQ	BN	57	16	ES		1320	39.11	-0.03							1.0

June 28 2018 Hour: 14: 5 21.7 Lat: 33.80N Lon: 35.78E Depth: 7 Agency: REL Local
Magnitudes: 2.8MC 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	12	58	EP		14 5	24.06	-0.04							1.0
BHL	BZ	16	316	EP		14 5	24.64	0.01	43						1.0
DQRL	SZ	22	241	EP		14 5	25.42	-0.01							1.0
RCY	SZ	34	170	EP		14 5	27.32	-0.04							1.0
RCY	SN	34	170	ES		14 5	31.62	0.05							1.0
HWQ	BZ	55	17	EP		14 5	30.70	-0.01							1.0
HWQ	BN	55	17	ES		14 5	37.45	0.04							1.0

June 28 2018 Hour: 17:17 51.8 Lat: 34.70N Lon: 36.12E Depth: 0 Agency: REL Regional
Magnitudes: 2.8MC 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	18	162	EP		1717	54.81	0.04	46						1.0
BEIL	SN	18	162	ES		1717	56.94	-0.03							1.0
HWQ	BZ	50	199	EP		1717	59.67	-0.10							1.0
HWQ	BN	50	199	ES		1718	5.71	0.03							1.0
DQRL	SZ	121	205	EP		1718	11.40	0.02							1.0
RCY	SZ	136	191	EP		1718	13.77	0.04							1.0

June 29 2018 Hour: 13:42 50.3 Lat: 34.64N Lon: 36.08E Depth: 6 Agency: REL Regional
Magnitudes: 3.0MC REL Rms: 0.0 secs

SYRIA REGION

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
BEIL	SZ	14	138	EP		1342	52.75	-0.06	61						1.0
BEIL	SN	14	138	ES		1342	54.71	0.03							1.0
HWQ	BZ	42	197	EP		1342	57.16	0.05							1.0
HWQ	BN	42	197	ES		1343	2.12	-0.04							1.0
ZAHL	SZ	88	192	EP		1343	4.57	0.00							1.0
BHL	BZ	90	206	EP		1343	4.92	0.03							1.0
DQRL	SZ	114	205	EP		1343	8.42	-0.08							1.0
RCY	SZ	129	190	EP		1343	10.79	0.06							1.0

Epicentral Map of Lebanon

JUNE 2018

