

TECHNICAL UNIVERSITY OF ISTANBUL

Institute of Seismology

PRELIMINARY SEISMOLOGICAL BULLETIN

April 1-30, 1960

Istanbul 41°02'6 N, 28°59'1 E

1	e		Z, E	07	54	14	..	9	Near E Coast of Hondo, JAPAN
	i	Pg	Z, E			16	..		40 N , 143 E
		Sg	Z, E			38	..		H = 02 43 51 (USCGS)
				Δ = 190 Km.			..		H= 02 44 (13) (Moskova.)
	e	P(n)	Z, E	08	31	13	..	e	P Z, E 02 54 00
	e				32	09	..		PP 58
				W of Peloponese, GREECE			..		Beginning of the record losts
				37 N, 21 E			..		during the Changing of the Paper
				H=18 48 25 (BCIS)			..		Sg Z, E 07 40 08
	e		Z, E	18	51	-	..	P(g)	Z, E 12 47 51
		(Sg)	Z, E		52	32	..	Sg	Z, E 48 53
	e	Pn	Z, E	22	46	31	..		Fox Islands, Aleoutiands
		(Sg)			47	16	..		53 N 167½ W
2				W of IRAN 34°N, 48° E			..		H = 20 26 12 (USCGS)
				H = 22 36 00 (BCIS)			..	e	P Z, E 20 38 53
	e	P	Z, E	22	39	51	..	10	Pg Z, E 08 49 (08)
		S	Z, E		42	46	..		Sg Z, E 50 06
		R ₂	Z, E		45	13	..	e	Pg Z, E 08 05 34
				W of IRAN aftershock precedent			..	e	Pg Z, E 12 05 49
				34° N , 48° E			..	10	E Turkey SE of İzmir
				H = 23 33 11 (BCIS)			..		37,8 N 27,6 E
	e	P	Z, E	23	37	05 C	..		H = 22 05 25 (BCIS)
		M	Z, E		44	-	..	e	Pn Z, E 22 06 20
5				No record between 05 08 and			..	i	Z, N 34
6				08 15.			..	i	Z, N 07 18
							..		Sg Z, N 23
7				Fiji Islands Region 24°S			..	12	E Turkey 37,8 27,8 E
				179 ½ W H = 13 47 28 (USCGS)			..		Aftershock of 10 April
				h = 500 Km. ca.			..		H = 04 22 37,5 (USCGS)
	i	PKP	Z, E	14	06	27	..		Δ = 380 Km.
8				Tonga Islands			..	e	Pb Z, H 04 23 34
	e	PKP	Z, E	00	15	28	..		Pg Z, N 43
				Strong microseisms.			..		Sg Z, N 24 27
9				Off E of Rhode App. 36½ N,			..		felt at Region GERMENCİK.
				28 ¼ E H = 02 44,7 (BCIS)			..	e	Pg Z, N 16 53 39
							..	e	(Sg) Z, N 54 08
							..	e	Z, N 22 02 59
							..		Pg Z, N 03 07
							..		Sg 48
				Pg Z, E 02 45 58			..		Δ = 345 Km.
		(Sg)	Z, E		46	57	..		

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Cont'

24 e SP Z,E 45 01 ..
 e SS Z,E 46 15 ..
 Z,E 48 49 ..
 Eastern Turkey 40°N, 39°E ..
 H = 06 00 06 (USCGS) ..
 e Pb Z,E 06 02 03 ..
 Sg Z,E 03 47 ..
 Rg₁ Z,E 04 47 ..
 Δ = 730 Km. ..
 ei P Z,E 12 19 51 C ..
 Δ = 2700 Km. ..
 Southern IRAN Lar Region ..
 27°6 N, 54°1 E ..
 H = 12 14 26 (USCGS) ..
 e Z,E 20 19 ..
 S Z,E 24 45 ..
 M₁ Z,E 12 30 - ..
 25 Aegean Sea H=16 28 34 (BCIS) ..
 e Pn Z,E 16 29 36 ..
 i Sn Z,E 30 24 ..
 i Sg Z,E 30 46 ..
 Δ = 445 Km. ..
 26 e Z,E 06 42 05 ..
 i Pn Z,E 06 48 16 ..
 Sg Z,E 57 ..
 Δ = 265 Km. ..
 Province Kansu 39° N, 101 E ..
 h = 21 27 12 (USCGS) ..
 e P Z,E 21 36 41 ..
 27 Southern IRAN 28°N 54½°E ..
 H = 17 39 32 ..
 e P Z,E 17 44 55 ..
 Southern IRAN ,aftershock of ..
 24 April. ..
 e P Z,E 18 11 53 ..
 Philippines 18°N, 120°E ..
 H = 22 43 49 (USCGS) ..
 e P Z,E 22 55 55 ..
 Celebes 0° Lat 122° E ..
 H = 09 53 26 (USCGS) ..

Cont'

27 e P Z,E 10 19 22 ..
 (PP) Z,E 23 00 ..
 Celebes 0° Lat 122°E ..
 H = 13 33 17 (USCGS) ..
 e P Z,E 13 46 27 ..
 PP Z,E 50 14 ..
 Kermadec Islands ..
 30°S, 178 ½°W ..
 H = 13 38 31 (USCGS) ..
 PKP Z,E 13 58 24 ..
 Celebes 0°, 122°E ..
 H = 19 32 16 (BCIS) ..
 i P Z,E 19 44 22C ..
 pP Z,E 36 ..
 (sP) Z,E 46 ..
 PP Z,E 48 16 ..
 PPP Z,E 50 04 ..
 Celebes 0°, 121°E ..
 H = 20 44 27 (USCGS) ..
 e P Z,E 20 57 37 ..
 PP Z,E 21 00 43 ..
 30 e Z,E 01 56 43 ..
 Traces. ..
 e Z,E 03 06 (38) ..
 e Pg Z,E 03 24 10 ..
 Sg Z,E 25 11 ..
 Rg Z,E 19 ..
 Celebes 0° Lat. 122°E ..
 H = 04 01 22 (USCGS) ..
 e P Z,E 04 14 42 ..
 PP Z,E 17 48 ..
 Dodecanes 36 ¾°N, 27¼°E ..
 H = 10 12 42 (BCIS) ..
 Pg Z,E 10 14 12 ..
 Sb Sb Z,E 15 04 ..
 Sg Z,E 15 13 ..
 i Z,E 29 ..
 Tonga Region 16°S 173°W ..
 H=11 00 05 (USCGS) ..
 e PKP Z,E 11 19 55 ..
 30 e Pn Z,E 15 06 59 ..
 Sn Z,E 07 39 ..
 Sb Z,E 49 ..
 Δ=365 Km. ..
 Banda Sea 6°S 124½°E ..
 H = 22 10 07 (USCGS) ..
 e Z,E 22 26 50 ..
 h = 600 Km. ..

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SEISMOLOGICAL BULLETIN

June 1-30, 1960.

Istanbul 41°02'6 N, 28°59'1 E

1	e	Z	11	07	51	..		4	Off SE Crete Island
1	e	Z	14	41	40	..		4	34½ N, 26 ½ E
	e	Z		42	54	..			e Pg Z 08 53 25
2	Southern of Chile					..			PgPg Z 33
	46½ S, 74 W H = 05 58 03					..			Sg Z 54 10
	(USCGS, BCIS)					..		4	Aftershock of 4 June (08 09
	e	PKP Z	06	17	13	..		45) H = 11 05 03 (BCIS)	
2	i	Z	08	06	02	..		e P Z 11 13 28	
	ei	Z		07	20	..		PP Z 15 06	
2	Iran 33½ N, 49 E					..		5	e Z 00 50 57
	H = 12 42 38					..		5	e Z 51 10
	i	P Z	12	46	48	..		5	e Pg Z 17 31 21
3	i	Pg Z	08	28	03	..		5	(Sg) Z 36
	i	Sg Z			08	..		5	e Z 17 49 16
	Δ = 45 Km.					..		5	Traces. Kermadec Islands
3	Fidji Islands					..			31 ½ S 177 W
	17½ S, 179 W h = 600 Km.					..			H = 19 30 30 (USCGS)
	H = 13 23 37 (USCGS)					..			e Z 19 50 34
		PKP Z	13	42	16	..		6	Off N California 41 N,
	e	Z		44	37	..		6	125 W H = 01 17 48
3	Near Coast of Hokkaido, JAPAN					..			(USCGS, BCIS)
	41½ N, 141½ E h = 100 Km.					..			i P Z Q1 31 15
	H = 16 18 04 (USCGS)					..			PP Z 35 02
	ei	P Z	16	29	57	..		6	Near of Chile 45½ S, 73½ W
4	e	Z	04	29	15	..			H = 05 55 44
4	Atlantic Region, Açores.					..			e PKP Z 06 14 45
	H = 07 48,8 (BCIS)					..			i Z 15 31
	e	P Z	07	57	00	..			PP Z 16 45
4	Açores Region					..		6	Southern Yougoslavie
	39½ N, 30W h = 08 09 45					..			41 N, 21¾ E
	(BCIS)					..			H = 15 31,8 (BCIS)
	e	P Z	08	17	56	..			e Z 15 34 42
		PP Z		19	46	..		6	Southern of Fidji Islands
						..			23½ S, 180 h = 600 Km.
						..			H = 23 30 08 (USCGS)
						..			e Z 23 49 02



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7 Ocean Indian 17 S, 98 E
H = 05 25 11 (USCGS)
e P Z 05 37 57

7 e Pg Z 09 47 59

7 e Pn Z 10 38 52
e Z 39 49

7 Near E Coast Kamtchatka
53 N, 158 1/2 E H=12 57 15(USCGS)
e P Z 13 09 07
e Z 45
PP Z 11 59

7 Arabian Sea 14 N, 57 E
H = 15 34 50 (USCGS)
e P Z 15 41 58
PP Z 43 23

8 No Clear bigining 37 3/4 N,
20 E. Ionian Sea.
H = 08 30,7 (BCIS)
e Z 08 33 11

8 Same Region of the precedent
e P Z 16 07 38
S Z 09 28

8 Atlantic Ocean 34 1/2 N, 36W
H = 16 19 48
i P Z 16 28 42 C
PP Z 30 35

8 e Z 19 47 42
Traces

9 Eastern TURKEY
39 1/2 N, 39 1/2 E
H = 02 44 08
e Pn Z 02 46 13
Pb Z 37
Lg₂ Z 48 38
Rg₂ Z 58

9 Central Hondo, JAPAN
35,4 N, 140.1 E h = 70 Km.
H = 04 20 51 (JMA)

9 Eastern TURKEY. Aftershock of
(02 44 08) 40 N, 39 1/2 E
H= 04 57,8 (BCIS)
e Pn Z 04 59 57
e Z 05 02 19

Vertical line of double colons (:) separating the two columns of data.

9 Alabania 40 1/2 N 20,2 E
H = 08 24 01 (BCIS)
e Pn Z 08 25 46
Sn Z 27 07
Sg Z 55

9 e Z 10 22 31
Traces.

9 e Z 10 37 51
Traces.

9 e Z 11 12 27
e Sg Z 41
e Z 14 16

9 New Hebrides 18 S, 169 E
H = 11 23 51. (USCGS)
e PKP Z 11 43 23
PP Z 46 17

9 i Pg Z 12 20 17
Sg Z 27
Δ = 85 Km.

9 e P(g) Z 12 24 37
Sg Z 47

9 Açores 38 N, 26W
H = 17 47 41 (USCGS)(BCIS)
e P Z 17 55 36
PP Z 57 16

9 Near W Coast of Sumatra
3 1/2 N, 96 1/2 E
H = 22 55 11 (BCIS)
e P Z 23 06 26

10 e Z 01 00 41

10 i Pg Z 03 50 01
(Sg) Z 21

10 Region Samoa Islands.
15 1/2 S, 174 W
H = 09 08 02 (USCGS)
e PKP Z 09 27 46

10 e Pn Z 16 54 25

10 Region Samoa Islands.
15 1/2 S, 174W H=21 12 05(USCGS)
e PKP Z 21 31 52
S of Bolivia 21 S, 64 1/2 W
h = 300 Km. H=00 34 48

e PKP Z 00 53 01

19	Pb	Z	08	34	30	..	27	Kermadec islands	32½ S,	
	Pg	Z			36	..		178 W	H = 16 50 24 (USCGS)	
	Sn	Z		35	08	..		e	Z 17 10 30	
19	e	Pb	Z	10	35	21	..		Traces.	
		Sn	Z		36	01	..			
19	Region Fidji islands.						..	28	Mongoli	46½ N, 96½ E
	15 S, 178½ W.						..		H =	21 02 44 (BCIS)
	h=500 Km. H = 12 21 53 (USCGS)						..		e	P Z 21 11 32
	e		Z	12	40	40	..	28	SW of TURKEY	37¾ N, 27¾ E
20	Near off Chile 38 S, 73½ W						..		H =	21 17 05 (BCIS)
	H = 02 01 08 (USCGS)						..		ei	Pn Z 21 18 02
	e	PKP	Z	02	20	05	..		i	Z 12
		PP	Z		21	38	..			Sg Z 19 02
		(PS)	Z		31	36	..			Δ = 375 Km.
		PKKS	Z		33	48	..	29	Near S coast of Chile	
		M	Z	03	12	-	..		43 S 74 W	H = 01 57 16
20	e		Z	06	35	31	..		(BCIS)	
20	Chile 39½ S, 73 W						..		e	PKP Z 02 16 17
	H = 12 59 45 (USCGS)						..	29	Kermadec islands	
	e	PKP	Z	13	18	38	..		30 S, 177½ W	
		PP	Z		20	14	..		H =	04 29 12 (USCGS)
		PPP	Z		22	44	..		PKP	Z 04 49 19
		LR	Z	14	06	-	..		e	Z 36
22		P(g)	Z	00	14	03	..		PP	Z 53 21
		Sg	Z			43	..	29	Atlantic Ocean	
23	i	Pg	Z	07	12	56	..		47¼ N, 27 W	
		(Sg)	Z		13	34	..		H =	10 23 00 (BCIS)
	for microseismis						..		e	P Z 10 30 39
23	i	Pg	Z	07	14	42	..		e	Z 31 29
		(Sg)	Z		15	20	..		PP	Z 32 11
	for microseismis						..	29	Albani, GREECE border	
23	e	Pn	Z	15	39	49	..		region.	39¼ N, 20½ E
		Sn	Z		40	02	..		H =	12 37 36 (BCIS)
24	No record						..		e	Pg Z 12 40 00
25	No record						..			(Sg) Z 41 14
26	Indian Ocean 26 S, 70½ E						..	29	e	Z 13 37 36
	H = 16 48 44 (USCGS, BCIS)						..		Traces.	
	e	P	Z	18	00	39	..	29	e	Z 13 41 30
27	i	Pg	Z	13	54	42	..		Traces	
		Sg	Z			45	..	29	Southern of Albani 39¾ N,	
							..		20¼ E. H =	13 42, 4 (BCIS)
							..		e	P(n) Z 13 43 48
							..			Sn Z 44 54
							..			Sg Δ = Z 45 5.
							..			620 Km.

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29	e	P	Z	17	19	38	..	30	Kenai island, ALASKA.
							..		60 N, 151 W.
29	e	Pg	Z	18	26	53	..		H = 19 58 33 (USCGS)
	i	Sg	Z		27	14	..		i P Z 20 10 39 D
		$\Delta = 180$ Km.					..		
30	e	P(n)	Z	05	23	38	..		
	e		Z		25	29	..		
		Sg	Z			50	..		
							..		

Zeki Uz

ADDITIF:

(Central Hondo JAPAN)

9	e	P	Z	04	33	47
	e		Z		34	03

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July 1-31, 1960

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Istanbul 41° 02' 6 N, 28° 51' 1 E

Table with columns for station codes (e, i, c, ci), wave types (X, Z, Pg, Sg, P, Pb, PP, Ss), and time/depth data (04 42, 12 13 09, etc.). Includes entries for Sandwich Islands, Andreanof Islands, and Queen Charlotte Islands.

Vertical line of double dots (..) separating the two columns of data.

Table with columns for station codes (e, i), wave types (Pg, Sg, Pb, P, X, Z), and time/depth data (15 18 25, 16 22 40, etc.). Includes entries for Nicobar Islands and Localty islands.

Delta = 320 Km.

M = 6 1/2 - 7 (Pasadena)
M = 6 1/4 - 6 1/2 (Berkeley)

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29 • X Z I4 40 IO ..
 ..
 29 Honshu, Japan ..
 ..
 i P Z I7 43 40 ..
 i X Z .. 42 ..
 • (S) Z .. 54 02 ..
 M= $6\frac{3}{4}$ (Pasadena) ..
 M= $6-6\frac{1}{4}$ (Berkeley) ..
 29 • X Z I9 09 02 ..
 • X Z .. 50 ..
 • X Z .. IO 26 ..
 ..
 ..
 ..
 ..
 ..
 ..
 ..
 ..
 ..
 ..

30 Seismic ?
 • X Z E OI 35 53
 e X Z 36 53
 • X E 58
 3I • PKP Z O3 I5 45
 3I Southern, İRAN.
 • (P) Z 22 32 I2

Saadettin KESİLİ

Balamir ÜÇER

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August 1-31 1960
 Istanbul 41 02 6 N, 28 59 1

1	Southern Iran 27°9'N 54°2'E	::	Cont'	e	P	E	07	47	(47)
		::		e	X	E		50	47
	i P Z E 02 26 03 C	::		e	S	E		57	51
	e S Z E 30 41	::							
	e X E 32 (57)	::							
	e L Z 35 10	::	4	i	P(g)	Z	17	02	37
		::		i	Sg	Z E		03	40
2	e X Z 03 26 06	::	5	e	Pg	Z E	04	19	56
	e X Z 48	::		e	Sg	Z E		20	38
2	Loyalty islands	::	5	e	Pg	Z	18	17	16
	22°2 S 171°5 W	::		e	Sg	Z			40
	M=6½(Pas.), 6¼(Berk.)	::							
	ei PKP Z 05 26 44 C?	::	5	Rat Islands, Aleutian Islands 51°0 N, 178°7 E					
	e PP Z 29 58	::		e	P	Z	22	40	08
	e PKS ₁ Z 30 15	::							
	e PKS ₂ E 30 25	::	7	Seismic ?					
2	e X Z 09 50 35	::		e	X	Z	01	25	28
	e X Z 54	::		e	X	Z			37
	e X Z 54 18	::							
2	i P(b) Z 19 19 24	::	7	e	Pg	Z	02	35	49
	i X Z 20 21	::		i	Sg	Z		36	20
2	ei (P) Z 20 59 18	::	7	e	P(n)	Z	11	12	36
		::		i	Pg	Z			39
		::		i	Sg	Z		13	39
3	e P(n) Z 02 27 41	::	8	i	Pg	Z	10	00	32
	i Pg Z 56	::		i	Sg	Z			45
	e Sg Z 28 (55)	::							
4	Rat Islands, Aleutian Islands	::	8	Dodecanese Islands					
	51.4 N, 179.1 E	::		36°0 N, 27°3 E					
	M=6-6¼ (Pas.)	::		H=20 36 28.4					

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Cont'	e	Pn	Z	20	37	47	..	13	e	P	Z	09	52	52
	e	(PnPn)	Z			55	..		e	X			56	45
	i	X	Z		38	07	..	13	No record between 13 <u>00</u>					
	i	X	Z			26	..		and 15, 08 41					
	e	(S)	Z		39	08	..	15	e	Pg	Z	11	23	40
	e	(Rg)	Z			46	..		i	Sg	Z			51
9	No record between 08 <u>27</u> and													
11	07	05.												
11	e	X	Z	11	58	57	..	15	ei	Pg	Z	21	22	49
	e	X	Z		59	19	..		i	Sg	Z		23	25
	e	X	Z	12	02	20	..	16	e	Pg	Z	01	33	22
	e	X				56	..		e	Sg	Z		34	43
12	e	Pg	Z	01	57	22	..	16	i	(Sg)	Z	15	17	26
	i	Sg	Z		58	06	..							
	e	X	Z			43	..	17	e	Pg	Z	22	25	48
12	Seismic ?													
	e	X	Z	10	40	13	..		i	Sg	Z			59
							..		i	X	Z		26	03
12	i	(P)	Z	13	34	43	..	17	e	Pg	Z	23	32	38
	e	X			35	24	..		i	Sg	Z			48
12	e	X	Z	17	22	58	..		i	X	Z			52
12	i	(Sg)	Z	21	42	43	..	18	i	Pg	Z	11	52	10
							..		i	Sg	Z			(38)
13	Near east coast of Honshu													
	40.6 N , 142.0 E													
	i	P	Z	07	23	07	..	19	e	Pg	Z	22	20	50
	i	pP	Z			20	..		i	Sg	Z		21	04
	h about 50 Km.													
13	e	(P)	Z	09	10	11	..	22	i	Pg	Z	20	55	21
	e	X	Z		11	17	..		i	Sg	Z			46
							..		i	X	Z			53
							..		i	X	Z		56	08

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30	e	Pg	Z	23	30	50	∥	31	/	Near Coast of Mindanao
	e	Sg	Z		31	10	∥			Philippine islands
							∥			13°7 N, 120°1 E
31	i	Pg	Z	05	17	23	∥	e	P	Z 17 34 16
	i	Sg	Z			31	∥			
							∥	31		Turkey 39°1 N, 36°3 E
31	e	Pg	Z	13	04	13	∥			H=22 11 53.9
	e	Sg	Z			32	∥			
							∥	i	Pn	Z 22 13 17
							∥	i	Pg	Z 35
							∥	i	S(b)Z	14 56
							∥	e	Rg	Z 15 42
							∥			
							∥			
							∥			
							∥			
							∥			
							∥			
							∥			
							∥			
							∥			
							∥			

Sadettin Kesili

Kemal Timur

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6	Time interpolated	Cont' H= 00 19 08.4
ei	P Z 12 50 47	10 e Pn Z 00 21 56
e	S Z 52 41	i (Pb) Z 22 25
		e Rg Z 24 (17)
6	Loyalty islands	10 Celebes Sea
	20°4 S, 169°4 E	4°0 N, 122°6 E
	M=6¼-6½(Pas.)	
e	PKP Z 14 22 23	e P Z 10 56 46
e	X Z 25 26	e pP Z 58 58
		h= 550
6	Near south coast of Hokkaido, Japan.	10 i Pg Z 11 38 34 C
	41°9 N, 142°5 E	i Sg Z 55
i	P Z 15 36 31 C ?	12 Ryukyu islands
e	X Z 41 06	27°3 N, 128°4 E
		M= 6½-6¾(Pas.)
		ei P Z 12 29 11 C
7	Tristan da Cunha region	16 e X Z 01 29 21
	37°2 S, 16°1 W	e (Pb) Z 37
ei	P Z 01 30 27	ei Pg 51
		e Sb 30 46
		Lg ₁ 56
7	Kurile islands	17 Kurile islands
	44°3 N, 149°1 E	49°3 N, 155°4 E
e	P Z 11 56 59	M= 6(Pas.)
9	Jan Mayen islands region	ei P Z 08 17 30
	71°7 N, 1°3 W	
e	P Z 20 11 03	17 Tonga islands
10	Crete 34°4 N, 26°4 E	20°9 S, 174°5 W
		M=6(Pas.)
		e PKP Z 20 15 59

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18	e	(P)	Z	14	29	15	..	27	e	P	Z	03	59	32
21		Iran	31°9 N, 50°4 E				..	27	e	P	Z	12	39	39
	e	P	Z	23	09	(33)	..							
22		Belgian Congo	3°4 S, 29°1 E				..	27	e	P(n)Z		16	25	42
									e	S	Z		26	51
							..							
	ei	P	Z	05	46	23 D	..	28	e	P		02	19	09
	e	(S)	Z		53	09	..							
								28	e	P	Z	22	25	14
							..		e	(S)	Z		27	10
22		Belgian Congo	3°3 S, 29°3 E				..							
			M=6¼ -6½ (Pal.)				..							
	i	P	Z	09	13	47	..							
22		Congo	2°8 S, 29°8 E				..							
	i	P	Z	09	23	02 C	..							
	i	P	Z			07 D	..							

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Institute of Seismology

PRELIMINARY SEISMOLOGICAL BULLETIN

October, 1-31, 1960

Istanbul 41 02 6 N, 28 59 1 E

1	e	Pg	Z	14	16	49	..	3	Honshu, Japan						
	i	Sg	Z		17	34	..		36°8, 140°1 E						
1	Fox islands, Aleutian islands.						..		e	P	Z	02	45	34	
	52°2 N 172°6 W						..		3	e	(Sg)	Z	05	12	55
	M=6(Berk.), 6½(Pas.)						..		3	i	P	Z	20	03	05 C
	ei	P	Z	16	23	32	..		6	e	P	Z	22	03	25
	i	X	Z			34 C	..			i	X	Z			33 C
1	e	(P)	Z	16	49	37	..			e	X	Z		04	59
1	e	P	Z	18	35	21	..		7	i	Pg	Z	04	24	27
	e	S	Z		36	39	..			i	Sg	Z			47
2	Pacific Ocean SE of Easter islands						..		7	i	Pg	Z	04	57	32
	38°7 S 91°5 W						..			e	Sg	Z			53
	e	PKP	Z	12	13	12	..		7	Banda Sea 7°4 S, 130°7 E					
2	e	P	Z	18	18	13	..			M=6½-6¾ (Berk.)					
	i	X	Z			27	..			M=6½-7 (Pal.)					
	e	X	Z		20	42	..		e	P	Z	15	32	31	
2	e	(Pg)	Z	23	13	42	..		e	pP	Z			57	
	e	Sg	Z		14	35	..		e	(PP)	Z		36	47	
3	West Pakistan						..		8	Sea of Japan 40°0 N, 129°7 E					
	29°8 N, 68°2 E						..			M=6½-6¾(Pas.), 6¼-6½(Berk.)					
	e	P	Z	00	55	51	..			h about 608 Km.					

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Cont'

8 i P Z 06 03 27
i pP Z 05 33
e S Z 12 00

h = 600 Km.

8 i P Z 07 11 03 C

8 Yugoslavia 42°7 N, 19°6 E

H = 13 54 03.3

e Pn Z 13 55 40
e S Z 57 19

8 Nicobar islands

7°9 N, 92°9 E

ei P Z 20 50 42 D

9 Near Coast of Northern

Honshu, Japan.

40°8 N, 141°2 E

M = 6½(Pas.), 6(Pal.)

i P Z 09 12 27 D
e X Z 15 18
e X Z 17 10
e S Z 22 11

9 Samoa islands region

15°1 S, 174°0 W

e (PKP) Z 10 10 53

13 Romania 45°2 N, 25°8 E

i Pn Z 02 22 38

13 Kamchatka 54°8 N, 161°2 E

M = 6½(Pas.), 6½-6½(Berk.)

ei P Z 15 04 24C
e PcP Z 34
e S Z 14 21

14 Fox Islands, Aleutian

islands 51°7 N, 172°1 W

M = 6½(Pas. Berk., Pal.)

i P Z 21 31 46
e S Z 42 (06)

14 North Atlantic Ocean

55°5 N, 35°2 W

i P Z 23 03 44C

20 Santa Cruz islands

region 11°0 S, 164°9 E

M = 6½(Pas.), 5½-6(Berk.)

e PP Z 11 28 (38)

20 e Rg Z 13 06 20

i Sg Z 41

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<p>22 Solomon islands region $10^{\circ}3$ S, $161^{\circ}2$ E M = $6\frac{1}{4}$-$6\frac{1}{2}$(Berk.), $6\frac{3}{4}$-7(Pas.) 6(Pal.)</p> <p>e P Z 08 40 57 e X Z 43 02</p>	<p>27 Samoa islands region $15^{\circ}2$ S, $175^{\circ}0$ W h about 253 Km.</p> <p>e PKP Z 22 47 08 D i PKIKP Z 11 D e pPKP Z 48 14 i(pPKIKP) Z 17</p>
<p>22 No record between 07 30 and 24 07 40.</p> <p>24 e (Pg) Z 09 02 32 e Sg Z,E 03 22</p> <p>24 e Pg Z 15 49 05 e Sg Z,E 55</p> <p>26 Greece $40^{\circ}3$ N, $20^{\circ}8$ E H=22 55 25.1</p> <p>e P Z 22 57 13 e S Z 59 06</p> <p>27 e P Z 11 03 44</p> <p>27 Near South Coast of Sumatra $6^{\circ}2$ S, $104^{\circ}0$ E</p> <p>e (P) Z 14 59 14 e X Z 47</p> <p>27 Jan Mayen island region $71^{\circ}3$ N, $8^{\circ}6$ W</p> <p>e (P) Z 15 46 26</p>	<p>28 Jan Mayen islands $71^{\circ}3$ N, $8^{\circ}6$ W M = $5\frac{1}{2}$(Pal.), $6\frac{3}{4}$(Pas.)</p> <p>e P Z 04 25 43</p> <p>28 Jan Mayen islands $71^{\circ}3$ N, $8^{\circ}4$ W</p> <p>e P Z 07 53 38</p> <p>28 Kamchatka $52^{\circ}0$ N, $157^{\circ}4$ E</p> <p>i P Z 13 29 59 D</p> <p>28 e P Z 14 00 23</p> <p>28 Near east coast of Honshu, Japan $34^{\circ}4$ N, $141^{\circ}1$ E</p> <p>e P Z 22 41 42 e (pP) Z 44 57</p>

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29	Italy 44°0 N, 11°5 E (USCGS) Felt at Mugello Province 44°0 N, 11°3 E (BCIS)	29	e P(KP) Z 13 33 49
			29 East of Sicily Mediterranean Sea 36°1 N, 17°8 E
	e (P) Z 00 11 (52)		e (P) Z 20 45 (57)
	e L Z 16 --		e (S) Z 48 13
29	West Pakistan 25°5 N, 67°6 E	30	North Atlantic Ocean 47°5 N, 28°7 W
	e P Z 01 32 (14)		e P Z 08 40 47
29	North Atlantic Ocean 15°4 N, 46°4 W	30	Near Coast of Chile 23.3 S, 70.3 W M = 6 $\frac{3}{4}$ (Berk., Pas.)
	e P Z 04 28 05		e P Z 12 33 (52)
29	e P Z 07 40 30	30	Chile-Bolivia border 22°8 S, 68°0 W M = 6 $\frac{3}{4}$ (Pas.)
29	Samoa islands region 15°8 S, 172°9 W M = 5 $\frac{1}{2}$ -5 $\frac{3}{4}$ (Pal.)		e P Z 21 51 (25)
	e PKP Z 09 57 18		e X Z 21 57 57
	i PKIKP Z 23 D		
29	North Atlantic Ocean 47°4 N, 27°6 W		
	e P Z 22 01 54		

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3	e	Pb	Z	17	19	27	..	Cont' 9	M = $5\frac{1}{2}$ - $5\frac{3}{4}$ (Pal.)	
	e	Sg	ZE		20	28	..		e (PKP) Z 20 25 00	
7		Kyushu , Japan					..	10	No time marks between	
		32°2 N, 131°5 E					..		00 39 and 10 , 08 52.	
	e	P	Z	13	35	03	..			
8		North Atlantic Ocean					..	10	e	P Z 10 27 24
		27°8 N , 44°3 W					..		e	X Z 29 00
	e	P	Z	04	38	20	..	10	Near Coast of New-Ginea	
8		Kurile islands					..		M = $6\frac{3}{4}$ (Pas.)	
		45°2N, 149°8 E					..		i	(P) Z 14 59 03 C
	e	P	Z	05	34	15	..	10	No time marks between	
8		Kurile islands					..		21 11 and 11 , 07 30	
		45°2 N, 149°7 E					..	13	Molucca Passage	
	e	P	Z	05	39	28	..		1°4 N, 127°2 E	
8	i	(Sg)	Z	09	18	45	..	e	P Z 06 50 22	
							..	i	(P) Z 51 21	
							..	e	PP Z 54 22	
9		Sandwich islands					..	13	Fox islands, Aleutian	
		60°7 S , 24°8 W					..		islands 51°1 N, 168°8 W	
		M = $6\frac{1}{4}$ - $6\frac{1}{2}$ (Pal.)					..		M = 7 (Pas.), $7\frac{1}{4}$ (Berk.)	
	e	PKP	Z	03	37	13	..		$6\frac{3}{4}$ (Pal.)	
9		Near Coast of Chile					..	e	Z 09 33 18	
		23°2 S , 70°6 W					..	i	P Z 19 D	

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Cont'						16	e	(P)	Z	21	46	(00)	
13	e	PP	Z	36	43								
	e	S	ZE	43	48								
	e	X	ZE	59	17	16				Sinkiang Province China			
										38°0 N, 89°5 E			
13		Fox island, Aleutian isl.					i	P	Z	23	08	11 D	
		51°1 N, 168°6 W					i	X	Z			16	
	e	P	Z	13	37	13							
							17	e	(Pg)	Z	02	41	21
								e	Sg	Z		42	10
13	ii	Pg	ZE	13	55	40							
							17	ei	Pg	Z	08	03	11
13	e	P	Z	20	53	20		i	Sg	Z			25
14		Fiji islands region					17			Fox islands, Aleutian			
		20°5 S, 177°7 W								islands 52°4 N, 170°1 W			
	e	PKP	Z	18	12	15		ei	P	Z	19	59	28 D
15		Antarctic Ocean : t					18			East of Crete			
		62°5 S, 161°7 W								Mediterranean Sea			
		M=5½ - 5¾ (pal.)								35°0 N, 28°6 E			
	e	PKP	Z	06	44	(19)				H=06 03 37°5			
								e	P	Z	06	05	32
15		Near Burma-India border					19	e	Pg	Z	12	10	22
		23°2 N, 94°3 E						i	(Sg)	Z			42
	e	P	Z	09	15	34							
16		South of Fidji islands					22			Indian Ocean North of			
		region 23°7 S, 179°3 E								Crozet islands			
	i	(PKIKP)	Z	01	42	01				35°9 S, 52°3 E			

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Cont'

22	M = $6\frac{3}{4}$ (Pas.)									
	ei	P	Z	06	42	59			28	i P Z 21 48 00
	i	X		43	01	D				i X Z 43
										e (S) Z 54 55
22	ei	X	Z	07	37	46			29	Ryukyu islands
	i	X	Z	38	27					26°5 N, 126°1 E
										i P Z 14 18 49
23	Time correction not available									
	between 07 10 and 26/XI/ 09 ^h									
	32 ^m									
27	e	(P)	Z	17	32	01				ADDITIF:
									9	Szechwan Province, China
										32°7 N, 103°4 E
										M= $6\frac{1}{4}$ - $6\frac{1}{2}$ (Pal.)
27	Belgian Congo 3°1 S, 29°1 E									
	e	P	Z	20	45	33				e P Z 10 53 36
										i P Z 39 C
28	Near Coast of Turkey									
	36°2 N, 31°1 E									
	h about 71 Km.									
	H = 05 12 50.1									
	ei	Pn	Z	05	14	06				
	i	Pb	Z			15				
	e	Rg	Z		15	46				
	Deeper than normal ?(UTI)									

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3	Outer Mongolia		3	e	X	Z	22	20	51
	42°8 N, 104°5 E								
	M = 7 (Pas., Berk.)		4	e	X	Z	12	22	17
	= 6½ - 6¾ (Pal.)								
ei	P Z E	04 33 42 C	4	e	X	Z	14	31	38
ei	PcP ZE	34 42							
i	PP ZE	35 49	4	Off coast of Honshu					
i	PPP ZE	37 01		32°5 N, 141°6 E					
i	PPPP Z	29		e	P	Z	16	33	(25)
e	S ZE	41 27							
3	Andreanof islands		4	i	P(g)	Z	17	23	20
	52°5 N, 177°3 W		4	e	P(g)	Z	21	12	51
e	P Z	07 20 06		e	(Sg)	Z		13	02
e	S Z	30, 5	4	e	X	Z	21	13	53
3	e Sg Z	08 27 08	4	i	P	Z	21	46	11 C
e	Sg Z	25	4	e	Pg	Z	22	15	(01)
				e	Sg	Z			(09)
3	Off south coast of Formosa		5	Fiji islands region					
	21°1 N, 121°1 E			21°2 S, 179°0 W					
e	P Z	09 24 17		i	PKP	Z	00	14	22
3	Laptev Sea	76°7 N, 131°1 E		small dil. followed					
i	P Z	20 30 20 C		strong compression					
3	e Pg Z	21 02 05	5	e	P(g)	Z	02	58	(43)
i	(Sg) Z	(31)		e	Sg	Z		59	(01)

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5	i	(Pn/P)	Z	16	27	14	..	6	Fiji islands region						
	e	X	Z			54	..		20°5 S, 178°8 W						
	i	X	Z		28	01	..	e	PKIKP	Z	12	36	22		
	Deep ?						..								
5	Near east coast of Kamchatka						..	6	e	P	Z	21	46	09	
	e	P	Z	18	20	18	..								
5	Atlantic ocean east of straits of Gibraltar						..								
	35°6 N; 7.2 W (BCIS)						..	6	e	Pg	Z	23	30	10	
	e	P	Z	21	27	38	..		e	Sg	Z			14	
	i	X	Z			39 D	..								
	i	X	Z			52 D	..	7	e	Pg	Z	00	18	32	
6	e	Pg	Z	01	57	43	..		e	Sg	Z			(36)	
	e	Sg	Z		58	03	..								
6	i	P	Z	02	58	16	..								
6	Outer Mongolia						..								
	42°9 N, 104°5 E						..								
	e	P	Z	03	44	45	..	7	e	P(g)	Z	17	48	20	
							..		e	S(g)	Z		49	00	
6	e	X	Z	08	08	15	..								
6	e	P	Z	09	10	42	..	7	i	Pg	Z	23	41	18	
	e	X	Z		14	39	..		i	Sg	Z			26	
	e	X			15	17	..	8	e	Pg	Z	20	17	30	
							..		i	Sg	Z			41	

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8	i	X	E	23	55	47	..	10	Samoa islands region
							..		15°0 S, 172°3 W
			Seismic ?				..		e PKP Z 13 52 (24)
9	i	X	E	01	55	29	..	10	Celebes Sea
			Seismic ?				..		1°5 N, 124°3 E
9	e	(Pg)	E	04	34	41	..		e P Z 14 08 01
9	i	X	Z	11	13	56	..	10	e Pg Z 16 19 33
	i	Pg	Z E			58	..		e Sg Z E 20 12
	i	Sg	N		14	16	..		
9	e	P	Z	14	06	55	..	11	Loyalty islands region
							..		22°1 S, 171°4 E
9	e	Pg	Z	15	49	32	..		ei PKP Z E 00 20 30 D
	e	Sg	Z E			36	..		e X Z E 23 42
							..		e X Z 34 (35)
9			Jan Mayen island region				..	11	Sin-kiang Province, China
			72°0 N, 1°6 W				..		36°8 N, 84°5 E
	ei	P	Z	21	31	47	..		e P Z 01 16 06
10	e	P	Z E	01	20	17	..	11	e PKP Z 01 36 (41)
10	e	P	Z E	05	29	58	..	11	Molucca Passage
	e	X	Z E		32	09	..		1°6 N, 126°4 E
10	e	P	Z	12	40	44	..		e (P) Z 03 31 31

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11	e	P	Z	10	21	56	..	14	Macquarie islands
	e	S	Z		26	18	..		region 51°9 S, 160°7 E
							..	e	PKP Z 14 43 (03)
11	New Hebrides islands region						..	15	Molucca Passage
	15°7 S, 166°9 E						..		2°9 N, 126°5 E
	M = 6½ - 6½ (Pas.)						..		M = 6½ (Pas., Berk.)
	e	PKP	Z	19	12	16	..	i	P Z 00 04 38 C
	e	X	Z		14	56	..	e	pP Z 05 01
12	e	Pg	Z	00	25	42	..	e	(PP) Z 08 20
	e	Sg			26	01	..	e	S E 15 05
13	Macquarie islands						..	15	ei Pg Z 14 29 54
	52°1 S, 160°9 E						..	e	Sg Z 30 32
	M = 7½ (Pas.), 7 (Pal.)						..	16	Fox islands
	e	PKP	Z	07	55	53	..		51°1 N, 170°6 W
	i	X	Z		56	00	..	e	P Z 01 32 48
	i	X	Z			03	..	16	Fiji islands region
	i	X	Z			10	..		16°3 S, 178°0 E
	Other phases lost						..	e	PKP Z 09 11 50
	during the Changing of the						..	16	Near coast of Eritrea
	paper.						..		13°6 N, 42°3 E
13	Bonin islands region						..	e	P Z 16 55 18
	27°7 N, 142°4 E						..		
	e	(P)	Z	10	16	34	..		

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16	North atlantic Ocean		17	e	P	Z	21	08	(46)
	43°8 N, 28°9 W								
	e	P	Z	18	29	26			
	i		Z			27	C		
	e	X	Z		31	18			
17	e	P	Z	10	17	14			
17	Java Sea	6°4 S, 109°3 E							
	i	P	Z	10	49	33	D		
	i	pP	Z		50	35			
	h = 250 Km.								
	S losts during hour mark								
17	e	P	Z	13	12	20			
17	North of Azores								
	43.2 N, 28.9 W								
	e	P	Z	13	22	23			
17	e	Pg	Z	14	40	59			
	e	(Sg)	Z		41	(38)			
17	e	Pg	Z	15	28	52			
	e	Sg	Z		29	11			
17	Kurile islands								
	47°3 N, 153°6 E								
	e	P	Z	16	56	52			
18	Yougoslavia (B.C.I.S)								
	e	X	Z	01	59	(27)			
	e	(X)	Z	02	04	47			
18	Mindanao, Philippine islands	8°5 N, 125°9 E							
	e	X	Z	18	34	37			
18	i	Pg	Z E	03	20	53			
	i	Sg	Z E		21	30			
19	i	Pg	Z	22	34	59			
	i	Sg	Z		35	18			
20	e	P	Z	19	52	31			
21	Alaska	61.6 N, 152.3 W							
	M = 5½ (Pas.)								
	e	P	Z	14	51	47			
21	No record between 18.30 and								
22	07 00.								
22	No record between 17 08 and 23. Decemb. 08 00								

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24	e	X	Z	20	15	(19)	..	29	e	X	Z	05	25	52
							..		e	X	Z		29	10
25	i	P	Z	04	05	02	..	29	Tonga islands					
	i	X	Z			08	..		18°4 S, 174°7 W					
	i	X	Z			21	..		e	PKP	Z	06	21	(57)
25	ii	Pg	ZNE	10	41	52	..	29	i	Pg	Z	08	13	33
	i	Sg	N			42 (10)	..		e	Sg	Z		14	40
26	Near South coast of Honshu						..	29	e	X	Z	10	41	(19)
	33°8 N, 136°2 E						..		Seismic ?					
	e		Z	01	57	00	..	29	Near coast of Southern					
	i	P	Z			03	..		Chile 44°8 N, 75°6 W					
26	i	X	Z	14	03	04	..		M = 6½ - 6¾ (Pas.)					
							..		= 5¾ - 6 (Berk., Pal.)					
27	e	Pg	Z	08	49	31	..		e	PKP	Z	10	55	48
	i	Sg	Z			50 15	..		i	X	Z			55
28	Near coast of Greece						..	29	e	Pg	Z	15	51	26
	34°9 N, 22°5 E						..		e	Sg	Z			45
	e	X	Z	05	42	08	..	29	Near Crete, Mediterranean					
	e	X	Z			23	..		Sea 35°3 N, 22°6 E					
	e	Pg	Z	10	13	44	..		H = 18 19 41.6					
	i	Sg	Z			14 14	..		e	P	Z	18	21	36
29	i	Pg	Z	00	16	12	..		e	S	Z		24	(31)
	i	Sg	Z			(21)	..							

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31	e	Pg	Z	07	52	46	:.	:.	31	e	X	Z	10	54	32
	e	Sg	Z		53	02	:.	:.		e	X	Z		57	52
							:.	:.							
							:.	:.							
							:.	:.							
							:.	:.							
							:.	:.							
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