

63

KEW  
OBSERVATORY

13 JAN 1961

RICHMOND,  
SURREY.

Seismological Laboratory  
220 North San Rafael Ave.  
Pasadena 2, California  
January 9, 1961

PROVISIONAL READINGS AT PASADENA  
(and auxiliary stations as noted)



Jan.					
1	iP	11 24 42			
	i	25 00			
	i	14			
1	iP	16 49 22			
1	eP	20 41 27			
2	iP2	10 24 19			
	Compression				
	i	10 24 49			
	iPP1	27 35			
	iSKS	34.7			
	eS1	35.3			
	e	36.3			
	iSS	40.5			
	eSSS	44.0			
	eG	47.1			
	iR	50.3			
	Distance	86°			
	Magnitude	6 $\frac{3}{4}$			
		mu		sec	
	PZ	1 $\frac{1}{2}$		2 $\frac{1}{2}$	
	PH	0.1		1 $\frac{1}{2}$	
	PPZ	0.7		2 $\frac{1}{2}$	
	SH	5		16	
	MH	14		20	
	MZ	7		20	
2	iP	16 31 40			
2	eP?	21 05 21			
	i	38			
2	iP	23 20 06			
	eP	11 59 15			
3	iP	17 53 05			
	i	32			
4	iP	12 09 32			
	i	46			
5	eP1	14 14 38			
	Compression				
	iS2	14 21 14			
	iG	24.5			
	iScS	24 33			
	iR	26.7			
	Distance	45°			
	Magnitude	6 $\frac{3}{4}$			
		mu		sec	
	PH	0.3		1	
	SH	2 $\frac{1}{2}$		5	
	SH	25		30	
	MH	100		20	
5	iP2	16 07 31			
	i	08 31			
	ePP2	11 38			
	eSS	26.7			
	eG	34.9			
	eR	38.9			
	Distance	100°			
	Magnitude	6 $\frac{3}{4}$ - 7			

Jan.					
5					
	PZ	0.5		1 $\frac{1}{2}$	
	PH	0.1		1	
	PPZ	2		3	
	PPH	1		2	
	MZ	5		20	
5	iP2	18 10 38			
	Compression				
	i	18 11 08			
	ePP2	14 07			
	eSKS	21 05			
	eS	25			
	i	22.7			
	iSS	27.0			
	eSSS	30.9			
	eG	33.9			
	eR	38.3			
	Distance	87°			
	Magnitude	6 $\frac{3}{4}$			
		mu		sec	
	PZ	0.9		1	
	PH	0.2		1	
	PPZ	1		3	
	PPH	0.2		2	
	MH	11		20	
	MZ	15		20	
5	iP2	18 27 24			
	Compression				
	i	18 28 02			
	i	29 03			
	iPP2	30 53			
	iPS	39.5			
	iG	50.9			
	iR	55.4			
	Distance	87°			
	Magnitude	6 $\frac{3}{4}$			
		mu		sec	
	PZ	0.4		1	
	PH	0.2		1	
	PPZ	0.3		1	
	PPH	0.1		1	
	MH	42		20	
	MZ	31		20	
5	iP	20 18 16			
6	iP	01 32 03			
	i	19			
6	eP	06 29 50			
	e	31 31			
6	iP	07 15 48			

Violet M. Taylor  
Seismological Assistant

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 January 13, 1961  
 PROVISIONAL READINGS AT PASADENA  
 (and auxiliary stations as noted)



Additional:

Dec. 30 eP 11 14 38  
 i 15 15  
 Jan. 1 eP 22 23 36

Continuation:

Jan. 7 iP 18 35 42

Dilatation

eSKS 18 47 11

eS 48 15

e 50.4

e 51.2

eSS 54.4

eG 19 07.5

eR 14.5

Distance 110°

8 e 03 15 03

eS 24 29

eSS 30.7

eSSS 34.9

eG 40.5

eR 45.2

Distance 100°

8 eP? 07 44 21

eS 54 01

eL 08 07.9

8 iP 10 12 45

9 eP 03 19 06

e 53

eG 34.5

eR 39.0

Distance 65°

9 iP 10 26 04

i 14

eS 37 07

ePS 38 07

eSS 42.9

eSSS 46.6

eG 49.6

eR 53.7

Distance 90°

9 iP 11 16 16

9 iP 11 20 29

9 iP 19 31 23

9 iP 19 34 16

10 IP2 14 32 39

Compression from

northwest

iP 14 32 55

iSP 33 03

iPP1 35 20

iScP 37 04

iS1 41 03

iS 23

eSS 45.1

Jan. 10 isSS 14 45.3

iG 48.4

3- iR 50.9

eP'P' 15 01 17

i 54

Distance 64°

Depth 60 km

Magnitude 6 $\frac{3}{4}$

mu sec

PZ 0.5 1 $\frac{1}{2}$

PH 0.2 1 $\frac{1}{2}$

PPZ 0.5 2

SH 9 9

MH 35 20

MH 12 20

MZ 17 20

11 iP 12 07 40

e 08 07

eS 13 57

eG 17.4

eR 19.4

Distance 42°

11 iP 19 40 38

i 41 11

12 iP 14 20 16

i 25

i(pP) 34

i 44

KEW  
 OBSERVATORY  
 17 JAN 1961  
 RICHMOND,  
 SURREY.

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 Seismological Assistant

Seismological Laboratory  
220 North San Rafael Ave.  
Pasadena 2, California  
January 17, 1961

PROVISIONAL READINGS AT PASADENA  
(and auxiliary stations as noted)



Correction:			Jan. 15	iP	20 52 21
Jan. 2	iP	16 37 40	16	eP	01 54 37
	Should read:		16	iP	04 03 29
	iP	16 31 40		i	32
				i	42
Additional:					
Dec. 31	eP	00 20 45	16	iP	07 08 24
	e(pP)	21 02	16	iP2	07 32 08
	iP	08 21 23		i	18
Jan. 1	iP	13 21 39	11	ePP1	35 09
2	iP	10 53 26		e	59
2	eP	22 14 01		iSKS	42 03
3	iP	05 39 44		eSS	50.5
	i	52		eG	52.4
3	iP	08 30 16	2	eR	56.1
3	eP	10 35 52		Distance	95 <sup>0</sup>
3	iP	14 16 10		Magnitude	6 <sup>3</sup> / <sub>4</sub> - 7
3	iP	18 16 07		mu	sec
3	eP	19 19 34		PZ	0.4 1 <sup>1</sup> / <sub>2</sub>
4	iP	13 36 35		PH	0.1 1
	Compression			PPZ	0.2 2
4	eP	19 14 54		MH	68 20
5	iP	05 51 48		MZ	49 20
5	iP	15 20 38	16	eP	11 31 37
	i	47	16	iP2	12 24 24
	i	21 04		i	34
6	eP	00 10 04	8	eS1	34 19
6	iP	10 54 26		eG	45.0
	i	31		eR	47.6
6	eP	23 20 26	2	Distance	80 <sup>0</sup>
8	iP	05 32 22		Magnitude	6 <sup>1</sup> / <sub>2</sub> - 6 <sup>3</sup> / <sub>4</sub>
8	eP	07 41 58		mu	sec
Continuation:					
Jan. 14	iP	16 26 04		PZ	0.4 1
14	iP	16 46 13		PH	0.2 1 <sup>1</sup> / <sub>2</sub>
	i	38		SH	4 5
15	iP	16 57 17		MZ	24 20
	i	49		MZ	35 20
	i	58 11	16	iP	13 21 13
	ePP	17 00 44	16	eP	14 15 52
	e	01 15	16	iP	15 09 57

Supplement:  
Times of P for additional shocks recorded at Woody:  
Jan. 1 06 49 41, 13 27 35, 17 52 46, 18 15 37  
Jan. 3 02 41 02, 08 23 39, 11 47 25, 11 50 26,  
13 01 33, 18 22 16, 19 44 49, 22 08 10,  
22 41 07, 23 18 31  
Jan. 4 08 08 55  
Jan. 5 16 24 02

KEW  
OBSERVATORY  
23 JAN 1961  
RICHARD O.  
CURREY.

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Seismological Laboratory  
 220 North San Rafael Ave.  
 Pasadena 2, California  
 January 24, 1961

PROVISIONAL READINGS AT PASADENA  
 (and auxiliary stations as noted)



Additional:

Jan. 8	eP	15 07 45
9	iP	13 43 19
9	iP	21 21 32
11	iP	01 23 30
11	eP	12 06 11
(precedes larger shock)		
12	iP	05 28 57
12	iP	19 20 26
14	iP	02 35 30
15	eP	08 31 47
	i	58
15	iP	12 04 47

Continuation:

Jan. 16	iP <sup>2</sup>	15 53 10
	i	21
10	iS <sup>1</sup>	16 02 59
	iSS	08.2
	iSSS	11.5
	eG	13.4
2	eR	16.7
	Distance	80°
	Magnitude	6 $\frac{1}{4}$
		mu sec
	PZ	0.3 1 $\frac{1}{2}$
	PH	0.1 1
	SH	0.8 3
	MH	7 20
	MZ	10 20
17	iP	23 18 18
	i	28
	e	29.4
	eG	39.1
	eR	41.6
	Distance	80°
17	eP	23 24 34
	e	41
	eG	46.3
18	iP	04 39 48

Jan. 19	eP	04 33 57
	eS	44 39
	e	45.9
	eG	56.5
	eR	05 00.3
	Distance	90°
19	eP	06 07 26
	eS	19 03
	eSS	23.9
	eG	30.9
	eR	34.7
	Distance	90°
19	iP	17 32 39
	i	50
	eS	41 27
	eSS	45.4
	eG	48.5
	eR	51.2
	Distance	72°
20	eP	01 55 39
	eG	58.8
	eR	59.8
	Distance	18°
20	iP <sup>2</sup>	17 15 44
	i	54
9	i	16 09
	iS <sup>1</sup>	21 03
	iG	23.0
2	iR	24.4
	Distance	35°
	Magnitude	6 $\frac{1}{4}$ - 6 $\frac{1}{2}$
		mu sec
	PZ	0.6 1 $\frac{1}{2}$
	PH	0.2 1 $\frac{1}{2}$
	SH	2 18
	MH	20 16
	MZ	10 18
20	iP	17 19 38
20	iP	17 22 15
21	eP	15 55 44

Supplement: Times of P for additional shocks recorded at  
 Woody (35° 42.0' N 118° 50.8' W)

Jan. 5	18 55 32
Jan. 7	11 41 53, 18 45 47
Jan. 9	08 06 55, 11 33 30
Jan. 10	11 18 38
Jan. 11	04 31 30, 13 40 46
Jan. 15	04 17 58, 19 45 26
Jan. 16	04 28 11, 08 59 57, 10 25 50, 11 52 52, 14 55 56

**KEW  
 OBSERVATORY**  
 31 JAN 1961  
 RICHMOND,  
 VIRGINIA

Violet M. Taylor  
 Seismological Assistant

**KEW  
OBSERVATORY**  
- 3 FEB 1961  
**RICHMOND,  
SURREY.**

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SEISMOLOGICAL LABORATORY  
220 North San Rafael Ave.  
Pasadena 2, California  
January 30, 1961

PROVISIONAL READINGS AT PASADENA  
(and auxiliary stations as noted)



Correction:

Jan. 18 iP 04 19 48  
Should read:  
iP 04 34 48  
Jan. 21 eP 15 55 44  
Should read:  
eP 14 55 44

Jan. (22) eP 03 36 38  
i 37 04  
ePP 40 07  
eSKS 47 15  
iS 25  
ePS 40

Additional:

Jan. 17 e 04 29 17  
17 iP 06 53 29  
e 40  
18 e 15 22 09  
18 eP 18 09 05  
18 eP 20 01 51  
20 iP 01 03 26  
20 eP 01 07 56  
20 iP 08 57 23  
i 49  
20 eP 09 03 26  
20 eP 13 39 40  
20 eP 17 11 14  
20 eP 22 46 53  
21 iP 13 25 54

13  
2  
iR 04 02.8  
Distance 88°  
Magnitude 7  
mu sec  
PZ 4 7  
PPZ 0.6 3  
MH 84 20  
MZ 52 20  
22 eP 13 50 10  
e 51 12  
22 eP 16 21 54  
i 22 05  
22 iP 19 23 19  
e(S) 27 51  
eL 43.5  
22 iP 20 22 10

Continuation:

Jan. 21 eP 22 11 17

Supplement: Times of P for additional shocks recorded at China Lake.

Jan. 16 07 54 38, 15 18 34  
Jan. 17 11 42 56, 16 28 22, 16 54 07  
Jan. 18 21 02 59  
Jan. 20 21 43 48, 22 11 27  
Jan. 22 13 00 24, 22 00 28  
Jan. 23 04 40 27, 14 30 57  
Jan. 25 01 16 37, 13 00 56, 19 20 03  
Jan. 26 10 39 36, 13 25 16

Violet M. Taylor  
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**KEW  
OBSERVATORY**  
- 3 FEB 1961  
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SURREY.**

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SEISMOLOGICAL LABORATORY  
220 North San Rafael Ave.  
Pasadena 2, California  
January 30, 1961



PROVISIONAL READINGS AT PASADENA  
(and auxiliary stations as noted)

Continuation:

Jan. 23	iP	04 59 43
24	eP	07 37 27
	i	34
	i	59
	iPP	40 44
	i	57
	eS	48 43
	eSSS	57.6
	eG	08 00.8
	eR	03.9
	Distance	90°
24	iP	23 20 33
25	iP	05 34 11
	eSKS	44 19
	eS	35
	e(PS)	45.8
	eG	56.9
	eR	06 00.8
	Distance	89°
25	iP	19 14 39
	i	57
	iPcP	15 21
	eS	23 11
	eG	30.5
	eR	32.4
	Distance	65°
(26)	iP <sup>1</sup>	16 26 09
	iPP <sup>2</sup>	29 39
	iSKS	36.7
	iPS	38.0
	iSS	42.9
	iSSS	46.4
	iG	49.9
	iR	53.9
2	Distance	90°
	Magnitude	6½
		mu sec
	PZ	2 8
	PPZ	0.15 4
	PPH	2 10
	MH	10 20
	MZ	10 20

Jan. 27	iP	01 05 22
28	iP?	03 35 03
	i	17
	i(S)	43 29
	e	47.8
	e	51.5
	e	55.8
	e	04 02.8
	Interpretation uncertain	
28	iP!	08 13 14.2
	Dilatation from NNE	
	iS!	08 13 34.4
	Magnitude 5.3	
	Felt widely in the Mojave Desert area, and slightly as far as Los Angeles.	
28	i(P)	14 18 20
	eR	15 01.4

Violet M. Taylor  
Seismological Assistant

SEISMOLOGICAL LABORATORY  
220 North San Rafael Ave.  
Pasadena 2, California  
February 3, 1961

PROVISIONAL READINGS AT PASADENA  
(and auxiliary stations as noted)



Additional:

Jan. 23 iP 04 22 57  
 25 iP 06 19 28  
 25 iP 07 14 18  
 27 iP 20 18 10  
 28 eP? 05 25 16  
 i 43  
 28 Tinemaha:  
 iP! 08 13 09.6  
 Dilatation from south  
 iS! 08 13 26.5  
 China Lake:  
 iP! 08 12 53.0  
 S-P of small after-  
 shocks at China Lake,  
 4.5 to 4.8 sec.  
 Tentative epicenter  
 35°43'N 118°00'W  
 t = 08:12:46.5

Jan. 29 iP 01 03 09  
 29 iP 13 32 07  
 i 20  
 eS 38.8  
 eSS 42.2  
 eG 43.5  
 eR 44.4  
 Distance 48°  
 30 iP 12 19 46  
 i 20 08  
 eS 25 31  
 eG 29.2  
 eR 30.9  
 31 eP2 00 55 10  
 i 20  
 iPP 56 15  
 iS 01 00 31  
 iG 02.6  
 iR 03.9

KEY  
 SEISMOLOGICAL LABORATORY  
 -7 FEB 1961  
 RICHARD AND,  
 SURVEY.

28 Barrett:  
 iP! 08 13 37.2d  
 Ft. Tejon  
 iP! 08 13 06.4c  
 Hayfield:  
 iP! 08 13 30.4d  
 Palomar:  
 iP! 08 13 28.4d  
 d = dilatation  
 c = compression

2 Distance 35°  
 Magnitude 6 1/4

	mu	sec
PZ	0.15	1
PH	0.1	1
SH	7	14
MH	25	20
MZ	17	20

Continuation:

Jan. 28 iP2 19 55 52  
 i 56 06  
 eSKS 20 06 29  
 iS 43  
 ePS 07 37  
 eSS 12.4  
 iG 20.0  
 eR 23.4  
 2 Distance 90°  
 Magnitude 6 1/4  
 mu sec  
 PZ 0.2 1  
 PH 0.03 1  
 MH 7 20  
 MZ 3 1/2 20

Feb. 1 iP 00 40 13  
 iL 43.8  
 2 eP 00 05 09.0  
 Dilatation from north  
 iP 00 05 14.0  
 iS 06 00.7  
 Distance 390 km  
 Magnitude 4 3/4 - 5  
 2 iP 00 08 41.2  
 iS 09 28.1  
 Distance 390 km  
 Magnitude 4 3/4 - 5  
 2 iP 11 26 13  
 i 42

Supplement: Times of P etc. for additional teleseisms recorded at Isabella

Jan. 26 19 01 41, 20 06 17, 21 32 57  
 Jan. 27 03 24 20, 03 29 06, 14 59 42, 15 18 42, 15 23 31

Supplement: Times of P etc. for China Lake

Jan. 28 14 34 48, 14 47 36, 17 47 17  
 Jan. 29 13 37 32 (e 13 37 57), 20 44 40  
 Jan. 30 00 20 37, 05 35 36 (i 05 36 06)

Violet M. Taylor  
 Seismological Assistant

SEISMOLOGICAL LABORATORY  
 220 North San Rafael Ave.  
 Pasadena 2, California  
 February 8, 1961  
 PROVISIONAL READINGS AT PASADENA  
 (and auxiliary stations as noted)



Additional:

Jan. 28	King Ranch:		Feb. 5	e	18 29 39	
	iP!	08 13 12.6		i	43.5	
	Santa Barbara:			eR	19 12.6	
	iP!	08 13 19.3	6	iP	10 41 10	
	iS	52.1		i	40	
	Isabella:		6	eP	12 20 30	
	iP!	08 12 52.8		i	40	
	iS!	08 12 57.8		i	55	
	Woody:			eS	27 01	
	iP!	08 12 58.4		eSS	30.3	
Feb. 1	iP	20 20 13		eG	30.7	
2	Haiwee:			eR	32.9	
	iP	00 04 41.2	6	iP	18 26 37	
	iS	05 01.5		e	40.1	
	King Ranch:			eG	43.2	
	iP	00 04 56.0		eR	46.8	
	China Lake:		6	iP	19 41 51	
	iP	00 04 46.7	(6)	iP <sup>2</sup>	21 58 14	
	Tinemaha:		16	Compression		
	iP	00 04 25.1		ipP	21 58 29	
	King Ranch:			isP	39	
2	iP	00 08 22.5		i	59 10	
	Tinemaha:			iPP\	22 01 51	
	iP	00 07 52.1		e	02 13	
	Haiwee:			eSKS	08.6	
	iP	00 08 08.3		epS	09 23	
	iS	26.9		ePS	10.3	
Continuation:				eSS	15.2	
Feb. 4	iP	01 24 02		eSSS	19.3	
	i	31		iG	22.9	
4	iP?	06 55 36		iR	26.4	
	eG	07 04.6	2	Distance	91 <sup>0</sup>	
4	iP	12 59 41		Depth	60 km	
4	iP	15 36 41		Magnitude	6 $\frac{3}{4}$	
	i	49			mu	sec
5	iP	07 50 56		PZ	0.4	1
5	iP	15 46 24		PH	0.2	1
	Compression			PPZ	0.4	2
	i	15 47 18		MH	9	20
	iS	52 48		MZ	21	20
	eG	56.1	7	iP?	04 36 21	
	iR	57.5				

Supplement: Times of P for additional shocks recorded at China Lake

Jan. 31	06 26 20, 07 58 36, 18 40 38, 21 41 19
Feb. 1	00 23 44, 02 59 25, 04 44 52, 06 39 38
Feb. 2	05 53 06

KEW  
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 13 FEB 1961  
 RICHMOND,  
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Violet M. Taylor  
 Seismological Assistant



SEISMOLOGICAL LABORATORY  
 220 North San Rafael Ave.  
 Pasadena 2, California  
 February 15, 1961

PROVISIONAL READINGS AT PASADENA  
 (and auxiliary stations as noted)



Additional:

Feb. 2 King Ranch:  
 iP 00 04 56.0  
 China Lake:  
 iP 00 04 46.7  
 Tinemaha  
 iP 00 04 25.1  
 2 King Ranch:  
 iP 00 08 22.5  
 Tinemaha:  
 iP 00 07 52.1

Continuation:

Feb. 7 iP 23 35 33  
 8 iP 02 49 08  
 8 iP 12 11 32  
 8 iP2 08 13 45  
 Dilatation  
 iPcP 08 14 16  
 i 45  
 ipP 15 46  
 iS\ 21 33  
 iScS 22 33  
 esS 25.1  
 eSS 25.9  
 esSS 28.9

20 FEB 1961  
 RICHMOND,  
 SURREY.

Distance  $64^0$   
 Depth 600 km  
 From P and S,  $m=6\frac{1}{4}$ ,  
 equivalent to  $M=5\frac{3}{4}$

	mu	sec
PZ	0.6	1
PH	0.4	1
SH	3	7

No surface waves recorded

8 iP 18 01 56

Dilatation  
 i 18 02 11  
 9 iP!2 02 20 45  
 Compression from southwest

14  
 i 02 20 51  
 i 59  
 iPP2 24 14  
 iS\ 31 07  
 ePS 29  
 eSS 35.9  
 eSSS 40.2

Feb. 9 eG 02 43.5  
 iR 45.9  
 2 Distance  $82^0$   
 Magnitude  $6\frac{3}{4}$

	mu	sec
PZ	1	$1\frac{1}{2}$
PH	0.2	1
PPZ	0.4	2
PPH	0.3	2
SH	3	8
MH	12	20
MZ	10	20

9 iP 09 16 31  
 9 iP 17 51 38.5  
 i 51.0  
 iS 52 25.5  
 Magnitude  $4\frac{3}{4} - 5$

11 iP 06 24 15  
 Compression  
 e 06 24 36  
 e 33 50  
 e 43.1  
 e 48.6  
 eL 07 04.4  
 11 iP 11 39 39

11 Dilatation  
 iP2 21 13 35  
 Compression from southwest  
 i 21 13 44  
 i 49

15  
 iPP2 16 49  
 iS\ 23 57  
 iSP 24.9  
 iPKKP 31 51  
 eSSS 33.1  
 eG 35.6  
 2 iR 39.3

eP'P'  
 Distance  $84^0$   
 Magnitude  $6\frac{3}{4}$

	mu	sec
PZ	1	2
PH	0.2	1
PPZ	0.4	2
PPH	0.2	2
SH	3	10
MH	10	20
MZ	7	20

Supplement: Times of P for additional shocks at Woody  
 Feb. 1 18 51 00  
 Feb. 2 00 04 47.2, 00 08 14.5  
 Feb. 3 12 46 15 (i 12 47 35), 13 43 31, 14 37 18, 14 48 10  
 Violet M. Taylor  
 Seismological Assistant

SEISMOLOGICAL LABORATORY  
 220 North San Rafael Ave.  
 Pasadena 2, California  
 February 15, 1961

PROVISIONAL READINGS AT PASADENA  
 (and auxiliary stations as noted)  
 Feb. 13



Continuation:

Feb. 11	iP	21 21 20
11	iP	22 55 38
12	iP	01 30 30
	eS	39.7
	eSS	44.2
	eG	47.8
	eR	49.6
	Distance	69°
12	eS	03 55 10
12	iP	13 08 37
	Dilatation	
12	i	13 08 47
12	iP2	22 04 53
	i	05 05
"	i	25
	iS	14 03
	iSS	18.3
	iL	22.3
2	iR	25.9
	eP'P'	32 55
	Magnitude	6 <sup>3</sup> / <sub>4</sub> - 7
	Distance	68°
		mu sec
	PZ	0.3 1
	PH	0.3 1
	SH	6 4
	MH	70 20
	MZ	50 20
12	iP	23 37 45
	i	59
13	i	00 05 58
	P'P' of	preceding?
13	iP	06 57 00
	i	15
6	iS	07 06 35
	i	07 12
	eG	15.3
2	iR	18.7
	Distance	75°
	Magnitude	5 <sup>3</sup> / <sub>4</sub> - 6

	PZ	1/4	1 1/2
	SH	1 3/4	17
	MH	4	20
	MZ	3	20
13	iP2	16 38	34
	Compression		
	i	16 38	45
	eS		47 55
10	e(ScS)		48 37
	e(SS)		52.9
	eG		56.2
	eR		59.9
2	Distance	70°	
	Depth	60 km	
	Magnitude	6 - 6 1/4	
		mu sec	
	PZ	1	3
	PH	0.5	2
	MH	5	20
	MZ	3 1/2	20
14	iP2	03 33	14
	Compression		
	i	03 33	29
6	eS		42 23
	eG		50.4
	eR		54.2
2	Distance	70°	
	Depth	60 km	
	Magnitude	6 - 6 1/4	
		mu sec	
	PZ	0.3	1 1/2
	PH	0.1	1 1/2
	SH	0.8	5
	MH	1	20
	MZ	3 1/2	20
14	iP	05 57	05
	i		13

Supplement: Times of P for additional shocks at China Lake

Feb. 3	23 54 17
Feb. 4	09 11 35, 09 21 00, 19 22 57
Feb. 5	00 09 53, 08 03 56 (i 08 04 08), 18 12 04
Feb. 6	20 10 39, 20 24 37 (i 20 24 58)
Feb. 7	01 56 23, 03 27 42 (i 03 30 24), 03 59 17, 05 30 53 (i 05 31 10), 05 34 13 (pP 05 34 36), 06 12 12, 14 36 48, 14 49 18, 15 06 47, 21 12 46, 22 19 56
Feb. 8	04 46 28, 06 27 12, 17 08 42, 18 46 17
Feb. 9	08 58 10, 13 27 20

KEW  
 OBSERVATORY  
 20 FEB 1961  
 RICHMOND.

Violet M. Taylor  
 Seismological Assistant

SEISMOLOGICAL LABORATORY  
 220 North San Rafael Ave.  
 Pasadena 2, California  
 PROVISIONAL READINGS AT PASADENA  
 (and auxiliary stations as noted)



Additional:			Feb. 18	iP	12 18 24
Feb. 12	Barrett:			iSKS	29 18
	eP	03 52 51		eG	42.0
	eS	54 34		eR	46.0
	Pasadena:			Distance	90°
11	eP	09 45 48	20	iP	13 10 45
11	iP	16 57 55		Compression	
	ipP	58 42		iPcP	13 13 07
12	eP	06 16 36		eS	16 45
12	iP	12 20 27		eG	19.2
13	eP	22 48 26		eR	21.2
14	eP	16 02 31		Distance	37°
15	eP	06 40 00	20	eP?	14 30 46
16	eP	09 07 00	20	iP	18 37 48
18	iP	01 15 25		Dilatation	
Continuation:				i	18 38 13
Feb. 15	iP <sup>2</sup>	10 56 25		i	24
	i	49		eS	47 51
	i	57 11		eSS	53.4
12	iS	11 05 35	20	iP	22 36 15
	iPS	06 00		eS	44 03
	eSS	10.3		eG	50.6
	eG	13.7		eR	53.5
	eR	17.4	22	iP	22 06 00
2	eP'P'	24 28		i	15
	Distance	70°	23	iP?	04 28 06
	Magnitude	6 - 6 $\frac{1}{4}$		e	30 02
		mu sec			
	PZ	1 2			
	PH	0.6 2			
	SH	1 24			
	MH	7 20			
	MZ	3 $\frac{1}{2}$ 20			
16	iP	14 06 01			
	Compression				
	i	14 06 12			
	eS	15 11			
	eG	23.3			
	eR	27.2			
	Distance	70°			

**KEW  
 OBSERVATORY**  
 28 FEB 1961  
**RICHMOND,  
 SURREY.**

Supplement:		Times of P for additional shocks at Woody					
Feb. 4		03 06 22					
Feb. 6		12 32 05,	14 29 18				
Feb. 8		16 06 26,	19 39 06				
Feb. 10		00 50 08,	01 27 59,	01 41 11	(i 01 41 19)		
		03 52 32,	08 59 44,	10 56 22			
Feb. 11		01 13 48,	02 46 56,	04 00 12			
Supplement:		Times of P for additional shocks at China Lake					
Feb. 10		04 54 22,	07 35 04				
Feb. 12		14 14 29					
Feb. 13		02 42 23,	09 17 59 (i 09 18 10),	16 35 49,	18 01 32		
Feb. 14		00 26 42 (i 00 26 57),	03 02 13 (i 03 02 24),				
		03 26 35 (i 03 26 46),	03 57 49				
Feb. 16		13 38 17					

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220 North San Rafael Ave.

March 2, 1961 ----- Pasadena 2, California

PROVISIONAL READINGS AT PASADENA  
(and auxiliary stations as noted)  
Feb. 26



Additional:

Feb. 19 iP 21 44 41

Continuation:

Feb. 24 eSKS 03 28.1

eS 28.9

ePPS 30.6

eSS 34.9

eG 43.6

eR 47.9

Distance 96°?

25 iP 05 06 41

Compression

25 iP 08 35 59

Compression

25 iP 15 13 37

e(S) 23.1

i 23 48

e(G) 32.1

eR 34.8

Distance 75°?

mu sec

PZ 0.2 1

MH 5 20

(26) iP2 05 59 40

i 06 00 02

10 eS\ 08 45

eSS 13.0

eSSS 16.4

eG 17.5

eR 20.7

Distance 69°

Magnitude 6 1/2 - 6 3/4

mu sec

PZ 1 2

PH 1 3

SH 2 1/2 8

MH 19 20

MZ 10 20

(26) iP2 18 23 34

Compression from northwest

i 18 23 43

iS\ 34 02

iSS 39.9

iSSS 43.9

iG 46.7

eP'P' 18 49 35

Distance 86°

Magnitude 7 - 7 1/4

mu sec

PZ 1 1 1/2

PH 0.6 2

SH 15 12

MH 35 20

27 iP 01 16 29

e 17 03

27 eP 10 42 17

i 23

eSKS 52 35

eS 43

ePS 53 35

eG 11 04.8

eR 09.7

Distance 86°

27 eP 13 14 15

eS 20 27

eG 23.2

eR 26.0

Distance 42°

28 iP 12 44 32

28 iP 21 29 59

Dilatation from southwest

ipP 21 30 20

isP 31

Mar. 1 iP? 00 36 20

1 iP 06 52 51

1 iP 19 38 58

1 eP 23 50 07

iS 56 23

eSS 59.2

eG 59.5

eScS 24 00.2

eR 01.5

Distance 42°

2 iP 15 26 36

i 50

e 28 53

eS 32 51

iG 36.0

eR 38.0

Distance 45°

Supplement: Times of P for additional shocks at Woody

Feb. 12 03 17 26, 06 33 18

Feb. 15 12 08 03, 12 08 52

Feb. 18 08 24 03, 08 33 34, 12 23 06, 16 05 05

Feb. 19 07 24 13, 08 01 43 (i 08 04 31), 13 14 02

Feb. 20 18 18 38, 19 03 51

Violet M. Taylor  
Seismological Assistant

SEISMOLOGICAL LABORATORY  
220 North San Rafael Ave.  
Pasadena 2, California  
March 10, 1961

PROVISIONAL READINGS AT PASADENA  
(and auxiliary stations as noted)



Additional:

Feb. 22 eP 02 57 43  
25 iP 01 31 35  
Mar. 2 iP 00 10 28

Continuation:

Mar. 3 eP 23 03 57  
4 iP 10 30 52  
i 31 20  
i 34

5 iP 01 39 10  
Compression  
i 01 39 18  
i 44

9 eS 49 51  
eSS 55.2  
eG 02 02.6  
2 eR 06.5

Distance 90°  
Magnitude 6 1/4

mu sec  
PZ 0.5 1 1/2  
MH 10 20  
MZ 7 20

5 iP? 21 37 50  
7 iP 06 55 50  
iS 07 06 24  
iSS 12.0  
iSSS 15.6  
eG 18.0  
Distance 90°

March 7 iP! 10 23 01  
9 Dilatation from southwest

iS! 10 33 28  
iPS 34 25  
iPPS 40  
eR 46.7  
2 Distance 84°  
Magnitude: M = 7 1/4 - 7 1/2

mu sec  
PZ 1 1/2 1 1/4  
PZ 18 12  
PH 10 12  
SH 40 30  
MH 200 20  
MZ 60 20

7 iP! 19 28 51  
i 20 01.1  
e(G) 25.1  
iR 30 33

Very distant.  
Magnitude 6?

mu sec  
MH 5 25  
7 iP 23 25 04  
i 26  
i 53  
eG 50 34

8 iP 00 25 13  
i(S) 34.5  
8 iP 13 04 56  
9 iP 04 10 39  
i 50

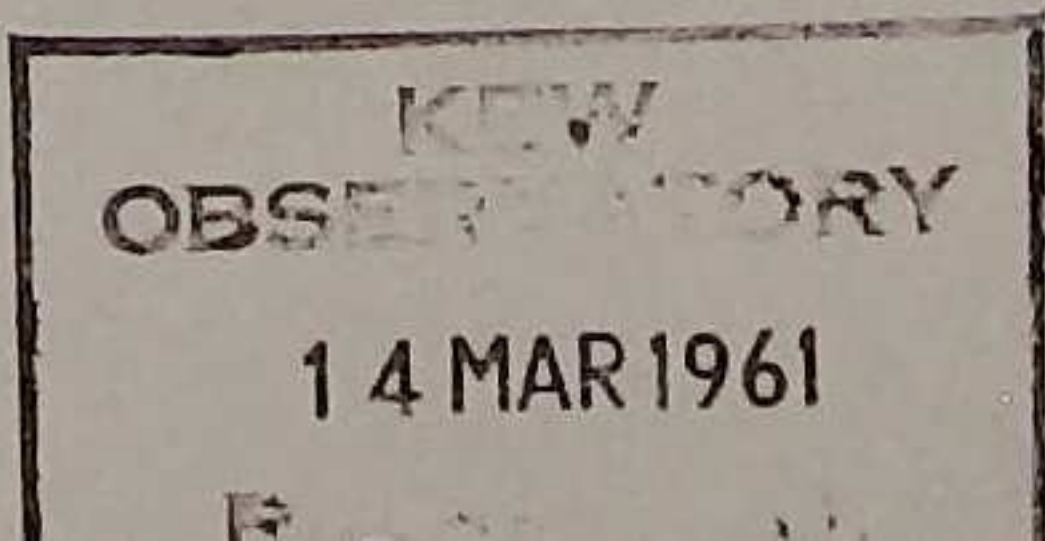
Supplement: Times of P for additional shocks at Woody

Feb. 23 05 47 23, 13 51 13  
Feb. 24 01 40 42, 02 48 28, 03 17 27  
Feb. 25 01 01 15  
Feb. 26 21 19 04  
Feb. 27 09 15 46, 11 43 50, 12 07 51, 15 51 59  
Mar. 1 04 50 06  
Mar. 2 13 55 05 (i 13 55 18)  
Mar. 3 09 59 45, 20 27 07  
Mar. 4 19 07 07, 22 37 42  
Mar. 5 10 50 52 (i 10 53 00)

Supplement: Times of P for additional shocks at Isabella

Mar. 1 03 36 09  
Mar. 3 06 38 32, 08 30 15

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SEISMOLOGICAL LABORATORY  
220 North San Rafael Ave.  
Pasadena 2, California  
March 20, 1961

PROVISIONAL READINGS AT PASADENA  
(and auxiliary stations as noted)



Correction:

Mar. 7 iP 23 26 04  
i 26  
i 53  
eG 50 34  
Should read:  
iP 23 25 04  
i 26  
i 53  
eG 50 34  
8 iP 00 26 13  
i(S) 34.5  
Should read:  
iP 00 25 13  
i(S) 34.5

Continuation:

Mar. 10 e 23 24 14  
e(L) 29.7  
10 iP 23 48 47  
11 iP 01 42 05  
i 20  
7 iS 50 36  
iSS 54.9  
iG 58.1  
eR 02 00.7  
Distance 67°  
mu sec  
PZ 1/2 1 1/2  
MH 4 20  
12 iP 02 53 58  
eG 57.2  
eR 58.8  
Distance 19°  
12 iP 23 34 00  
eSKS 44 26  
eS 45.3  
eR 24 03.4  
Distance 95°

Mar. 13 iP 08 07 50  
Dilatation from southeast  
iG 08 11.3  
iR 12.5  
Distance 19°  
Magnitude 6 1/4 - 6 1/2  
mu sec  
PZ 2 1/2 2  
PH 1 1/2 2  
MH 22 20  
14 i(P) 01 24 59  
eS 33 26  
eSS 41.7  
eG 43.3  
eR 44.7  
Distance 75  
14 iP 03 52 52  
15 iPl 10 28 11  
eS 39 18  
8 ePS 40.5  
eSS 45.6  
eG 53.3  
2 eR 57.1  
Distance 95°  
Magnitude 6

mu sec  
PZ 0.2 2  
MH 3 1/2 27  
MZ 5 20  
15 iP 13 14 04

KEW  
OBSERVATORY  
23 MAR 1961  
RICHMOND,  
SURREY

Supplement: Times of P for additional shocks at Woody

Mar. 7 02 59 47  
Mar. 8 08 39 33, 23 13 58  
Mar. 9 08 38 06  
Mar. 10 03 45 37, 15 12 52, 15 43 25, 20 59 21, 23 20 04  
Mar. 11 01 34 16, 02 36 48, 07 26 08, 17 07 16  
Mar. 12 01 36 16, 04 15 46, 12 13 33, 15 02 02, 15 55 22,  
23 54 33  
Mar. 13 07 55 11, 09 19 12, 20 54 05, 21 27 08, 22 17 06  
Mar. 14 01 16 29, 04 29 45, 12 06 34, 14 02 23  
(iP 14 02 45)

Supplement: Times of P for additional shocks at China Lake

Mar. 7 20 01 12  
Mar. 8 05 41 16 (i 05 41 25)  
Mar. 9 12 58 16, 14 21 20

Violet M. Taylor  
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SEISMOLOGICAL LABORATORY  
220 North San Rafael Ave.  
Pasadena 2, California  
March 21, 1961  
PROVISIONAL READINGS AT PASADENA  
(and auxiliary stations as noted)



Continuation:

Mar. (16) iP<sup>1</sup> 14 04 23  
 eS 13 38  
 ePS 16.0  
 eSS 22.0  
 eG 34.4  
 eR 39.3  
 2- Distance 120<sup>0</sup>?  
 Magnitude 6 $\frac{1}{4}$   
 Heavy microseisms

	mu	sec
MH	5 $\frac{1}{2}$	20
MZ	7	20

17 iP 14 18 58  
 eS 29 06  
 eG 39.2  
 eR 43.3  
 Distance 82<sup>0</sup>

(17) iP 20 22 43  
 iS 32 48  
 eG 43.1  
 2- iR 45.9  
 Distance 81<sup>0</sup>  
 Magnitude 6

	mu	sec
MH	5	20
MZ	4	20

(18) iPP<sup>1</sup> 15 13 58  
 eSKS 20 18  
 eS 21.6  
 ePS 23.3  
 iPPS 24.3  
 iSS 29.1  
 iG 39.6  
 2- iR 44.6  
 i(R) 51.0  
 Distance 110<sup>0</sup>  
 Magnitude 6 $\frac{3}{4}$  - 7

	mu	sec
PPZ	0.2	1 $\frac{1}{2}$
MH	30	20
MZ	30	20

19 iP 05 21 49  
 19 eS 07 38.6  
 eG 50.8  
 eR 54.8  
 Distance 88<sup>0</sup>  
 19 eP 20 46 16

Mar. (20) iP<sup>2</sup> 06 23 26  
 ipP 39  
 ePP 25 02  
 iPcP 48  
 ipPcP 26 00  
 11 iS 29 22  
 eG 32.1  
 2- eR 36.1  
 Distance 38<sup>0</sup>  
 Depth 60 km  
 Magnitude 6 - 6 $\frac{1}{4}$

	mu	sec
PZ	$\frac{3}{4}$	1 $\frac{1}{2}$
PH	$\frac{1}{2}$	1 $\frac{1}{2}$
MH	10	20
MZ	5	20

20 iP 11 49 28  
 e 51 18  
 20 iP 13 20 02  
 20 iP<sup>2</sup> 16 04 42  
 Compression from southwest

	mu	sec
ipP	16	05 26
iPP <sup>2</sup>	07	31
ipPP		59
iS\	14	06
iScS		38
isS	15	23
iPS		33
iG	24.1	
eR	26.4	
eSKPP <sup>1</sup>	35	22

Distance 78<sup>0</sup>  
 Depth 180 km  
 Magnitude 6 $\frac{1}{2}$  - 6 $\frac{3}{4}$

	mu	sec
PZ	1	1 $\frac{1}{2}$
PH	0.3	1
PPZ	0.4	1 $\frac{1}{2}$
PPH	0.3	2
SH	14	7

(20) iP<sup>1</sup> 23 54 46  
 1 eS 24 04 48  
 iPS 05.6  
 eG 15.1  
 2- eR 18.6  
 Distance 80<sup>0</sup>  
 Magnitude 6 $\frac{1}{4}$

	mu	sec
PZ	0.2	1
MH	30	20
MZ	10	20

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OBSERVATORY  
24 MAR 1961  
RICHMOND,  
CALIFORNIA

SEISMOLOGICAL LABORATORY  
 220 North San Rafael Ave.  
 Pasadena 2, California  
 March 31, 1961

PROVISIONAL READINGS AT PASADENA  
 (and auxiliary stations as noted)



Correction:			Mar. 28			iP <sup>2</sup>	12	37	24	
Mar. 12	Woody read	23 54 33				Dilatation				
		23 54 03				i	12	37	49	
Additional:						i			58	
Mar. 13	iP	05 04 24				i		39	26	
16	iP	04 42 15			6	iS <sup>1</sup>		43	58	
16	iP	05 06 52				eG		47.4		
	i	07 07				eR		49.4		
16	iP	15 37 26				Distance	50 <sup>0</sup>			
17	iP	03 50 14				Magnitude	6 $\frac{1}{4}$			
	ipP	41								
Continuation:										
Mar. 21	iP	09 33 50				PZ	0.6		1 $\frac{1}{2}$	
21	iP	20 07 39				PH	0.1		1	
	eL	35.6			28	SH	3		4	
22	eP	04 27 08				iP <sup>2</sup>	21	13	22	
	eL	55.1				Dilatation				
22	iP	14 07 58				ipP	21	13	52	
	eG	35.1				isP		14	03	
	eR	39.6				ePP		16	28	
22	iP	21 40 21			12	eS <sup>1</sup>		22	47	
23	iP	21 09 28				e		23	10	
24	eP	23 09 12				i			18	
27	iP	21 03 16				i			33	
28	iP <sup>1</sup>	09 50 36				iSS		27	46	
	iP <sup>1</sup>	54 29				eG		33.1		
10	iPP <sup>2</sup>	55 05				eR		37.8		
	iSKS	10 01 24				Distance	75 <sup>0</sup>			
	e	58				Depth	100 km			
	eSS	10.9				Magnitude	6			
	iG	22.5								
1	Distance	110 <sup>0</sup>								
	Magnitude	6 $\frac{3}{4}$ - 7								
			mu	sec	30					
	PZ	0.2	2			iP	07	46	35	
	PPZ	0.2	1			eG		49.3		
	PPH	0.1	1			eR		49.7		
	MH	47	20			Distance	16 <sup>0</sup>			
	MZ	20	20							
						PZ	0.1		1	
						PH	0.1		1	

Supplement: Times of P for additional shocks at China Lake

Mar. 13	06 06 22				
Mar. 14	05 12 32				
Mar. 16	07 37 52, 08 04 25, 20 17 34, 22 38 51, 22 45 33				
Mar. 17	09 00 50, 16 29 13				
Mar. 18	02 03 58, 08 39 02, 09 52 44, 10 28 26, 23 39 26				
Mar. 19	00 18 17, 05 03 31, 09 31 38, 12 18 40, 14 28 39, 20 00 34				
Mar. 20	00 39 42, 02 29 52, 11 20 19				
Mar. 21	06 17 16, 06 37 06, 09 56 41, 16 34 12				
Mar. 22	06 46 20, 14 26 43				

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KEW  
 OBSERVATORY  
 - 4 MAR 1961  
 RICHMOND.



SEISMOLOGICAL LABORATORY  
220 North San Rafael Ave.  
Pasadena 2, California

April 7, 1961

PROVISIONAL READINGS AT PASADENA  
(and auxiliary stations as noted)



Correction:

Mar. 18	China Lake	23 39 26
	read	23 24 26
Mar. 19		09 31 38
	read	09 30 38

Additional:

Mar. 25	iP	21 18 42
28	iP	06 07 21

Continuation:

Mar. 30	iP	09 01 12	
	iS	10 34	
	iPS	11 10	
	eG	19.1	
	eR	22.5	
	Distance 71°		
	Magnitude 5 $\frac{3}{4}$ - 6		
		mu	sec
	MH	8	20
	MZ	3	20
31	eP	05 32 32	
31	eP	21 09 05	
	epP	18	
31	iP	23 30 56	
Apr. 1	iP	02 52 56	
1	eP	15 32.6	
	eP'	36 08	
9	ePP'	38 20	
	eSKS	43 14	
	iS	46 08	
	eSS	54.9	
	eR	16 17.4	
	Distance 128°±		
	Magnitude 6 $\frac{1}{4}$ - 6 $\frac{1}{2}$		
		mu	sec
	PPH	0.6	3
	MH	7	20
	MZ	4	20

Apr. 2	eP	02 56 59
2	eP	14 56 02
4	eSKS	10 14.4
	ePPS	19.6
	eSS	23.9
	eSSS	28.6
	eG	35.4
	eR	39.4
	Distance 112°	

4 iP 07 59 17  
4 iP 21 32 27  
Accompanied by damage to oil wells, Terminal Island, Los Angeles Harbor. Felt by persons slightly, in the harbor district. Apparent magnitude about 3.5.  
6 iP 04 06 42  
i 08 03  
eG 08.5  
eR 09.0  
Distance 11°  
7 iP 08 46 25

**KEW OBSERVATORY**  
**11 APR 1961**  
**RICHMOND, SURREY.**

Supplement: Times of P for additional shocks at China Lake

Mar. 23	23 38 35
Mar. 24	02 23 06, 15 23 50
Mar. 25	02 19 13 (pP 02 19 42), 14 26 37
Mar. 26	20 17 40 (pP 20 18 46)
Mar. 27	10 43 52, 16 41 57 (pP 16 43 43), 20 58 39
Mar. 29	06 55 39, 18 22 07
Mar. 30	11 09 53

Supplement: Times of P for additional shocks at Woody

Mar. 31	06 24 56, 07 34 53, 09 10 53 (pP 09 11 05)
Apr. 2	00 42 24, 21 04 19
Apr. 3	01 19 17 (i 01 19 47, i 01 20 31), 02 53 33, 08 02 47

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SEISMOLOGICAL LABORATORY  
220 North San Rafael Ave.  
Pasadena 2, California  
April 12, 1961

PROVISIONAL READINGS AT PASADENA  
(and auxiliary stations as noted)



Additional:

Apr. 6 Tinemaha:  
iP 04 06 18.1

Continuation:

Apr. 7 iP 20 04 32  
iS? 12.4  
eL 18.6  
8 iP 04 31 18  
8 iP 04 56 12  
eS? 05 03.5  
eL 10.1  
8 iP 09 12 57  
eS? 20.3  
eL 27.0  
(8) eP2 18 12 10  
10 i 19  
iS\ 22 34  
iSS 27.6  
eSSS 31.3  
eG 34.4  
e(R) 39.3  
2 Distance 83°  
Magnitude 6½

	mu	sec
PZ	0.6	2
PH	0.1	1
SH	7	10
MH	23	20
MZ	16	20

8 iP 19 30 36  
(8) iP2 21 49 19  
Compression  
i 21 49 52  
iS\ 59 50  
eSS 22 05.0  
8 eSSS 08.6  
eG 11.6  
eR 15.9

Distance 85°  
Magnitude 6½

	mu	sec
PZ	0.4	1
PH	0.1	1
SH	5	8

Apr. 9 iP! 07 24 12.6  
Compression from northwest  
iS? 07 25 05.5  
Magnitude 5¾  
9 Tinemaha:  
iP 07 23 58.1  
9 iP? 07 26 16.4  
iS? 27 33.2  
Magnitude 5½?  
Confused by preceding  
9 eP1 15 28 04  
(9) iP1 15 48 48  
ePP1 52 50  
iSKS 56 26  
10 iS\ 16 00.4  
ePPS 01.7  
eSS 07.0  
eG 14.2  
eL 15.6  
2 Distance 94°  
Magnitude 6

	mu	sec
PZ	0.2	2
PPZ	0.2	2
SH	1	27
MH	2	20
MZ	2	20
9 iP	17 28 56	
12 iP	09 12 19	

KEW  
OBSERVATORY  
17 APR 1961  
RICHMOND,  
SURREY.

Supplement: Times of P for additional shocks at China Lake

Mar. 30	11 09 53, 19 29 41
Mar. 31	11 15 45
Apr. 1	08 18 18
Apr. 3	16 42 02
Apr. 4	10 48 30, 19 39 55
Apr. 6	03 29 07 (e 03 29 22), 04 06 31, 14 23 55 (e 14 27 1)

Violet M. Taylor  
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SEISMOLOGICAL LABORATORY  
220 North San Rafael Ave.  
Pasadena 2, California  
April 21, 1961



PROVISIONAL READINGS AT PASADENA  
(and auxiliary stations as noted)

Additional:

Mar. 27 iP 09 01 28  
 i 34  
 eS 02 14  
 China Lake:  
 iP 09 01 05  
 Haiwee:  
 iP 09 01 07  
 Hayfield:  
 iP 09 01 28  
 Tinemaha:  
 iP 09 01 08  
 iS 32  
 Magnitude 4.5  
 California-Nevada  
 boundary region  
 Apr. 4 Palomar:  
 i 21 32 37  
 Riverside:  
 i 21 32 28  
 San Nicolas:  
 e 21 32 44  
 Santa Barbara:  
 i 21 32 49  
 Palos Verdes:  
 e 21 32 13  
 i 19.2  
 6 China Lake:  
 iP 04 06 31  
 Haiwee:  
 iP 04 06 28  
 Isabella:  
 iP 04 06 24.5  
 King Ranch:  
 iP 04 06 17.8

Apr. 6 Santa Barbara:  
 iP 04 06 33.6  
 Woody:  
 iP 04 06 20.5  
 iS 07 39  
 7 iP 17 48 32  
 8 iP 03 15 53  
 8 eP 16 12 33  
 9 China Lake:  
 iP 07 24 05.3  
 Isabella:  
 iP 07 23 56.6  
 King Ranch:  
 iP 07 23 47.4  
 Santa Barbara:  
 iP 07 23 58.2  
 Fort Tejon:  
 iP 07 23 59.1  
 Haiwee:  
 iP 07 24 03.9  
 Woody:  
 iP 07 23 51.8  
 iS 24 26  
 iP 07 26 18  
 iS 45  
 9 iP 09 33 03  
 ipP 35 18  
 9 iP 13 32 44  
 Continuation:  
 Apr. 12 iP 17 38 17  
 i 31

Supplement: Times of P for additional shocks at Woody

Apr. 2 11 24 27 (pP 11 24 57)  
 Apr. 6 15 46 22 (pP 15 46 38, sP 15 46 44)  
 Apr. 9 00 42 25, 08 58 18  
 Apr. 10 01 22 00, 17 51 26  
 Apr. 11 00 41 30

Supplement: Times of P for additional shocks at China Lake

Correction: Apr. 6 03 29 07 should read 03 29 33 (03 29 22 should read 03 29 48)

Continuation of Supplement:

Apr. 6 20 01 11, 22 26 40  
 Apr. 7 07 05 06, 10 26 07  
 Apr. 9 07 54 41  
 Apr. 10 20 59 49  
 Apr. 11 17 57 59 (pP 17 58 23), 20 37 50  
 Apr. 12 03 19 26, 10 59 32

KEW  
 OBSERVATORY  
 24 APR 1961  
 RICHMOND,  
 CALIFORNIA

Violet M. Taylor  
 Seismological Assistant

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SEISMOLOGICAL LABORATORY  
 220 North San Rafael Ave.  
 Pasadena 2, California  
 April 21, 1961



PROVISIONAL READINGS AT PASADENA  
 (and auxiliary stations as noted)

Continuation:

Apr. 12	iP <sub>2</sub>	22 27 09	
	Compression		
	ipP	22 27 26	
	iPP <sub>2</sub>	28 18	
	iPcP	29 47	
	ipPcP	30 06	
	iS	32 30	
	esS	33 04	
	iG	35.2	
	iSSS	36.2	
	iScS	37 30	
	Distance	33 <sup>0</sup>	
	Depth	60 km	
	Magnitude	5 $\frac{3}{4}$ - 6	
		mu	sec
	PZ	0.6	1
	PH	0.3	1
	PPZ	0.2	1
	PPH	0.1	1
	SH	1	5
	MH	5 $\frac{1}{2}$	20
12	iP!	22 33 26	
	Compression		
	i	22 34 05	
	iScS	43 38	
	Distance	33 <sup>0</sup>	
	Depth	60 km	
		mu	sec
	PZ	$\frac{3}{4}$	1
13	iP	16 53 08	
	iS	17 02 30	
	iSS	08.2	
	eG	12.6	
	eR	17.3	
	Distance	80 <sup>0</sup> ?	
	Interpretation	doubtful.	
		mu	sec
	MH	10	20
	MZ	7	20
16	eP	05 04 29	
	e	05 04	
	eL	06 40	
16	iP	11 50 45	
	i	51 32	
	e	58.7	
16	e(P)	12 19 14	
	i(P)	27 15	
	i	20	
	i	43	
	i(S)	31 00	

Apr. 16	eG	12 44.3	
	eR	47.9	
	Two shocks?		
17	iP	04 48 30	
17	iP	07 56 31	
17	iP	20 46 26	
	iPcP	58	
	ipPcP	47 12	
	iS	55 42	
	e	56 18	
	Distance	70 <sup>0</sup>	
	Depth	60 km?	
19	iP	16 23 35	
	Compression		
	i	16 24 11	
	i	43	
	iS	32 40	
	eG	40.3	
	eR	44.3	
	Distance	70 <sup>0</sup>	
19	iP	18 23 35	
	i	49	
	eS	31.4	
	eG	38.1	
	eR	39.5	
	Distance	60 <sup>0</sup>	
19	iP	20 31 01	
	eS	39.7	
	eG	47.2	
	eR	48.1	
	Distance	65 <sup>0</sup>	
(20)	iP	21 50 32	
	eS	59 54	
6	eG	22 07.8	
	eR	11.4	
	Distance	70 <sup>0</sup>	
	Magnitude	6 - 6 $\frac{1}{4}$	
		mu	sec
	MH	18	20
	MZ	7	20

KEW  
 OBSERVATORY  
 24 APR 1961  
 RICHMOND,  
 SURREY.

Violet M. Taylor  
 Seismological Assistant

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SEISMOLOGICAL LABORATORY  
220 North San Rafael Ave.  
Pasadena 2, California  
April 27, 1961

PROVISIONAL READINGS AT PASADENA  
(and auxiliary stations as noted)



Continuation:

Apr. 21	iP	20 21 11
	i	24
	eS	29.8
	eG	37.4
	eR	39.9
	Distance	65 <sup>0</sup>
21	eP	21 34 45
	i	57
	eL	45.1
23	iP	03 56 12
23	iP	05 27 31
	i	49
	i	28 09
	eSKS	37 44
	eS	38 12
	ePS	39.3
	eSS	45.0
	eG	51.9
	eR	56.6
	Distance	90 <sup>0</sup>
(23)	iP\	09 12 40
	Compression	
	i	09 12 50
	iPP	15 04
	e	16 28
	iS\	21 40
	iScS	22 34
	eSS	25.6
	eSSS	28.6
	eG	29.1
	iR	32.7
2	eP\iP\	41 05
	Distance	67 <sup>0</sup>
	Magnitude	6 $\frac{1}{4}$
		mu sec
	PZ	0.1 1 $\frac{1}{2}$
	SH	4 25
	MH	28 20
	MZ	14 20

Apr. 23	iP	17 02 16
	eS	10 58
	eG	18.6
	eR	22.4
	Distance	67 <sup>0</sup>
25	eP	01 28 48
	eS	37 38
	eSS	41.6
	eG	45.3
	eR	48.2
	Distance	68 <sup>0</sup>
25	iP	11 29 29
	i	41
	eSKS	39 58
	ePS	41.3
	eSS	46.2
	eG	53.1
	e(R)	12 01.0
	Distance	90 <sup>0</sup>
26	eP	06 33 40
	i	54
(26)	iP	07 49 59
	iS	58 50
	eG	08 06.5
	eR	09.4
	Distance	69 <sup>0</sup>
		mu sec
	MH	7 20
	MZ	5 20
26	iP	19 43 32
	e	44 05

Supplement: Times of P for additional shocks at China Lake

Apr. 13	23 54 50
Apr. 14	04 15 18, 12 16 43
Apr. 15	01 30 33 (i 01 31 17), 09 49 10
Apr. 16	10 29 30, 17 01 00
Apr. 17	02 44 32, 13 20 17, 13 25 42, 16 33 45, 20 59 36
Apr. 18	02 50 59, 08 37 52, 09 48 43, 19 02 08
Apr. 19	07 51 58, 11 15 07 (pP 11 15 33), 16 42 03, 22 18 44 (i 22 18 58)

**KEW  
OBSERVATORY**  
- 1 MAY 1961

Violet M. Taylor  
Seismological Assistant

SEISMOLOGICAL LABORATORY  
220 North San Rafael Ave.  
Pasadena 2, California  
May 4, 1961

PROVISIONAL READINGS AT PASADENA  
(and auxiliary stations as noted)



Additional:

Apr. 21 eP 19 40 55  
e 41 10  
22 e 00 43 46  
22 iP 19 10 38

Continuation:

April 27 iP 00 37 28  
27 iP 18 02 31  
i 58  
28 iP 01 03 49  
iS 04 26  
Magnitude 4 - 4 $\frac{1}{4}$   
28 iP 08 54 19  
i 50  
29 iP 09 21 51  
Compression from  
northwest  
iS 09 23 42  
Distance 10<sup>0</sup>  
Magnitude 5 $\frac{1}{2}$  - 5 $\frac{3}{4}$   
29 iP 09 39 48  
29 iP 11 11 50  
iS 12 55  
Distance 6<sup>0</sup>  
Magnitude 5 $\frac{1}{2}$   
30 iP 07 44 14  
eS 52 38  
eR 08 03.5  
Distance 66<sup>0</sup>  
30 eP 11 26 18  
i 33  
eS 35 10  
eSS 39.6  
e(G) 43.1  
e(R) 47.6  
Distance 70<sup>0</sup>  
30 iP 14 59 42  
i 48  
eS 15 09 10

Apr. 30 eSS 15 13.6  
eG 18.1  
eR 21.0  
Distance 73<sup>0</sup>  
30 iP 17 33 01  
iS 34 48  
Distance 10<sup>0</sup>  
May 1 iP 02 53 11  
iS 55 01  
Distance 10<sup>0</sup>  
1 iP 07 23 48  
iS 25 39  
Distance 10<sup>0</sup>  
1 iP 12 21 29  
iS 23 21  
Distance 10<sup>0</sup>  
1 iP 18 47 53  
i 48 24  
eG 49.7  
eR 50.1  
Distance 11<sup>0</sup>  
2 iP 04 27 33  
2 iP2 22 57 10  
iPP1 23 00 22  
6 iS1 07 30  
eG 19.6  
2 eR 22.6  
Distance 84<sup>0</sup>  
Magnitude 6 $\frac{3}{4}$   
mu sec  
PZ 0.5 2  
PH 0.1 1  
PPZ 0.6 2 $\frac{1}{2}$   
SH 8 10  
MH 25 20  
MZ 12 20  
3 iP 14 07 50

Supplement: Times of P for additional shocks at Woody

Apr. 20 05 22 12 (pP 05 22 45), 19 32 15  
Apr. 21 14 01 34, 14 23 03, 14 55 48  
Apr. 22 10 48 50  
Apr. 23 12 28 43, 15 06 12, 23 50 30  
Apr. 24 03 21 10, 05 00 15, 12 38 25, 13 22 38  
Apr. 25 00 39 28, 01 15 45, 21 04 27  
Apr. 26 06 08 48, 07 34 06 (pP 07 36 19), 13 27 47

Supplement: Times of P for additional shocks at Isabella

Apr. 26 18 59 03  
Apr. 27 06 36 58, 11 15 00 (pP 11 15 14)  
Apr. 28 08 39 41, 08 52 16

Violet M. Taylor  
Seismological Assistant



SEISMOLOGICAL LABORATORY  
220 North San Rafael Ave.  
Pasadena 2, California  
May 11, 1961



PROVISIONAL READINGS AT PASADENA  
(and auxiliary stations as noted)

Additional:

Apr. 28	King Ranch:			
	eP	01 03	24.5	
	Woody:			
	iP	01 03	29.3	
	Isabella:			
	iP	01 03	33.3	
	Tinemaha:			
	iP	01 03	46.0	
	iS	04	15.3	
28	iP	17 07	17	
28	iP	20 47	26	
29	Tinemaha:			
	iP	09 21	31	
	Woody:			
	iP	09 21	31	
29	Barrett:			
	iP	11 11	09	
	i		18	
	iS		56	
	Palomar:			
	eP	11 11	18	
	i		27	
29	eP	21 29	11	
May 2	iP	19 02	17	

May 6	ePS	23 37	54	
	eR		53.0	
	Distance	90°		
	(7) iP2	00 38	39	
	Compression			
	i	00 38	50	
	i		39 27	
	eSKS		49.0	
	ePS		50.8	
	eSSS		59.6	
	eR	01 06	6	
	Distance	93°		
	Magnitude	6½	- 6¾	
		mu	sec	
	PZ	0.3	1	
	PH	0.2	1	
	MH	12	20	
	MZ	10	20	
	7 iP	04 48	18	
	iPKP?		51 15	
	i		53 34	
	7 eP	10 36	04	
	ePP		41 22	
	i		47.6	
	ePS		50.6	
	eSS		57.0	
	eSSS	11 00	6	
	eG		06.4	
	eR		11.3	
	Distance	115°		
	7 iP	15 28	55	
	eG		30.6	
	eR		31.2	
	Distance	11°		
	8 iP	02 06	26	
	8 i?	12 54	35	
	8 iP	19 35	11	
	i		18	
	iS		44 46	
	e		45 03	
	e		18	
	iSS		49.8	
	eSSS		53.3	
	eL		58.2	
	Distance	76°		

Continuation:

May 4	iP	02 20	02	
	eG		21.8	
	eR		22.4	
	Distance	11°		
	4 iP	03 44	02	
	5 e(P)	13 55	46	
	eSKS	14	06.0	
	eSSS		16.9	
	eG		20.9	
	eR		23.1	
	Distance	94°		
	Magnitude	6¼		
		mu	sec	
	MH	17	20	
	MZ	10	20	
6	iP	23 26	08	
	i		18	

16 MAY 1961  
RICHARD J. D. SUPERVISOR

Supplement: Times of P for additional shocks at Woody

Apr. 28	06 08 34, 14 13 07
Apr. 29	23 39 46
Apr. 30	04 47 20, 05 19 33, 11 11 25 (i 11 11 50), 18 58 45
May 1	02 43 45, 03 25 55, 03 56 48
May 2	01 31 03, 01 41 41, 11 28 55

Supplement: Times of P for additional shocks at China Lake

May 2	03 22 14, 19 50 45, 21 02 22, 22 40 07, 23 36 31
May 3	08 51 10, 17 06 43, 17 15 36 Violet M. Taylor Seismological Assistant

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SEISMOLOGICAL LABORATORY  
220 North San Rafael Ave.  
Pasadena 2, California  
May 18, 1961



PROVISIONAL READINGS AT PASADENA  
(and auxiliary stations as noted)

Additional:

May 6	iP	04 06 20
7	eP	04 26 12
7	iP	15 04 06

Continuation:

May 9	iP	00 01 52
	i	02 00
	eL	04.1
9	iP	11 19 25
10	iP	10 16 33
	eS	25 58
	eSSS	34.6
	eG	37.3
	eR	38.8
	Distance	75°
11	iP	01 10 29
11	iP?	05 01 55
11	iP2	08 50 49
	i	57
11	eS1	09 01 08
	ePS	02 02
	eSS	06.6
	eSSS	10.4
	eG	13.0
	eR	17.9
	Distance	85°
	Magnitude	6 1/4 - 6 1/2
		mu sec
	BZ	0.4 1 1/2
	PH	0.15 1 1/2
	SH	17 13
	MH	9 20
	MZ	7 20
11	iP	18 51 16
13	iP!	15 03 57
	Compression	
	i(pP)	15 05 53
13	iP	15 60 43

May 14	eP	19 33 53
	i	34 02
	eG	36.0
	eR	36.4
	Distance	13°
16	iP	21 58 15
	i	26
	eS or eSKS	22 08 46
	eSS	15.0
	eSSS	18.1
	eG	21.5
	eR	25.9
	Distance	85°
17	iP	08 44 45
17	iP2	19 38 23
	i	33
	i	42
	eScP	43.6
	iS1	45 38
	iScS	48.2
	iSS	49.5
	iG	51.3
	iR	53.0
	Distance	55°
	Magnitude	6

	mu	sec
PZ	0.1	1
PH	0.05	1
SH	3	8
MH	17	20
MZ	14	20

KEW  
SERVATORY  
23 MAY 1961  
RICHMOND,  
SURREY.

Supplement: Times of P for additional shocks at Woody

May 1	02 43 45, 03 25 55, 03 56 48
May 2	01 31 03, 01 41 41, 11 28 55, 22 27 02
May 3	00 39 34, 12 24 07
May 4	06 57 20, 07 11 22, 14 26 56, 20 30 02, 21 01 10
May 5	06 51 30, 08 56 47, 13 09 53, 15 41 17, 20 49 38, 20 59 24
May 6	00 02 57, 19 22 08, 22 33 12, 23 02 44
May 7	02 55 54, 06 05 03, 07 58 39, 08 37 35, 09 03 33, 09 36 17, 12 32 24, 13 32 55, 16 21 06, 22 05 20
May 8	14 37 14
May 9	02 24 07, 08 28 30, 11 07 00, 12 08 27

Supplement: Times of P for additional shocks at China Lake

May 11	13 36 46, 13 47 48
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Violet M. Taylor  
Seismological Assistant



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SEISMOLOGICAL LABORATORY  
220 North San Rafael Ave.  
Pasadena 2, California  
May 24, 1961



PROVISIONAL READINGS AT PASADENA  
(and auxiliary stations as noted)

Correction:

May 13 iP 15 59 49  
should read:  
iP 16 00 43

Continuation:

May 18 e 23 22 52  
19 iP 09 32 27  
40  
57  
34 59  
i 35 14  
eS? 37.6  
eG 40.6  
e(R) 43.6  
21 eP 17 50 58  
21 iP 19 27 48  
22 eP 09 07 54  
22 iP<sup>2</sup> 13 56 23  
11 ePP<sup>2</sup> 59 39  
iS\ 14 06 10  
iPS 54  
e 15.8  
eG 16.6  
2 eR 20.0  
Distance 81°  
Magnitude 6

May 22 iR 18 08.2  
Distance 81°  
Magnitude 6½ - 6¾

	mu	sec
PZ	0.7	1
PH	0.1	1
PPZ	2	3½
PPH	0.1	1
SH	5	11
MH	9	20
MZ	7	20
iP	22	14 19
eG		15 28
iR		35

Distance 6°  
23 iP\ 02 59 15  
ePP<sup>2</sup> 03 03 28  
eSKS 09.4  
ePS 12.6  
i 13.7  
ePKKP 15 10  
eSS 23.3  
iP\iP\ 23 31  
eL 29.9

2 Distance 103°  
Magnitude 6¼

	mu	sec
PZ	0.1	1
PH	0.05	1
PPZ	0.1	1½
PPH	0.6	3
SH	3	15
MH	8	20
MZ	3½	20
22 iP <sup>2</sup>	17	44 26
Compression		
iPP <sup>2</sup>	17	47 26
12 iS\		54 56
iPS		55.5
iSS		59.6
eSSS	18	03.1
eG		06.3

	mu	sec
PZ	0.1	1
PPZ	0.3	4
PPH	0.3	4
MH	8	20
MZ	4	20
23 iP	03	47 49
i		48 01
i		26
i		49 56
i		50 33
i		51
23 eP?	08	27 36
eS?		28 42

Supplement: Times of P for additional shocks at Woody

May 10 23 26 40  
May 11 05 37 48 (pP 05 39 36), 13 07 28  
May 12 04 56 55, 06 39 39, 07 00 51, 07 36 34, 17 39 02  
May 13 05 45 21, 08 49 38, 12 54 36, 13 54 16, 14 31 11,  
19 32 39, 19 53 35  
May 14 02 55 49, 08 33 17, 13 51 11

KEW  
OBSERVATORY  
29 MAY 1961  
Richard

Violet M. Taylor  
Seismological Assistant

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SEISMOLOGICAL LABORATORY  
220 North San Rafael Ave.  
Pasadena 2, California

June 2, 1961

PROVISIONAL READINGS AT PASADENA  
(and auxiliary stations as noted)



Additional:

May 15	eP	20 01 57
15	iP	21 05 01
17	iP	22 47 07
18	eP	09 50 17
18	eP	22 15 33

May 28	eP	17 16 29
	eG	17.3
	eR	17.7
	Distance	6°

Continuation:

May 23	IP! 2	16 51 46
	Compression from southeast	
7	iPcP!	16 54 14
	iS	57 16
	iScP	52
	iL	59 58
	Distance	36°
	Magnitude	6½

29	eP	00 30 18
	eS	36 26
	eG	38.3
	eR	40.1
	Distance	38°

29	iP	07 40 53
	iS	51 12
	eSS	56.3
	eSSS	08 00.4
	eG	03.7
	eR	08.2
	Distance	82°

	mu	sec
PZ	1	1½
PH	¾	1½
SH	2	22
MH	4	26

30	iP	12 18 49
31	iP	14 19 03
	iG	20.1
	iR	20.6
	Distance	7°

24	iP	13 37 18
24	eP?	19 02 48
	eG	03 50
	eR	59

(3)	IP	19 29 08
	eS	40 28
	eG	54.3
	eR	58.1
	Distance	95°

26	eP	03 33 05
26	iP	04 47 04
26	eP	05 13 16
26	eP?	14 27 03
27	iP	07 29 56
	eS	39.2

June 1	MH	5	20
	iP	10 11 04	
	eS	17 54	
	eL	21.4	

28	iP	13 00 16
	iS	41

Magnitude 4½  
Felt at Indio and Palm Springs.

Supplement: Times of P for additional shocks at Woody

May 15	19 24 53
May 16	03 39 49, 04 00 18, 17 39 58, 18 03 58
May 17	01 07 46, 03 23 54, 04 37 52
May 18	04 42 16, 06 47 41, 09 39 57, 20 55 26
May 19	01 55 24, 02 33 01 (i 02 35 13), 03 54 02, 14 49 43, 16 50 51, 16 54 44
May 20	12 01 57, 18 11 34
May 21	03 43 13, 08 00 34, 15 17 18
May 25	17 45 52, 19 55 27, 21 18 31
May 26	06 19 31, 08 51 52

Supplement: Times of P for additional shocks at China Lake

May 22	01 30 32 (i 01 30 59), 14 21 53
May 23	01 10 07
May 25	04 56 05

Violet M. Taylor  
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KEW  
OBSERVATORY  
- 5 JUN 1961  
RICHMOND.

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OBSERVATORY  
12 JUN 1961  
RICHMOND,  
SURREY.

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SEISMOLOGICAL LABORATORY  
220 North San Rafael Ave.  
Pasadena 2, California  
June 9, 1961



PROVISIONAL READINGS AT PASADENA  
(and auxiliary stations as noted)

Additional:		June 2	eP	06 04 08	
May 28	Barrett:		i	13	
	iP	13 00 08	3 iP	01 23 00	
	iS	24	iS	30 47	
	Hayfield:		eSS	34.6	
	iP	12 59 55	eL	37.0	
	Palomar:		Distance	58 <sup>0</sup>	
	iP	13 00 04		mu sec	
Continuation:			PZ	0.3 1	
June 1	iPKP	23 48 41	4 eP	07 47 33	
	ePP	50 58	e	51 19	
	eSKP	52 12	iPP2	52 07	
9	ePPS	24 02.8	ePS	08 01 41	
	eSS	08.6	ePKKP	02 41	
	eG	25.6	eSS	07.0	
	eR	30.2	eSSS	11.6	
2	Distance	130 <sup>0</sup>	eL	21.6	
	Magnitude	6 $\frac{1}{2}$ - 6 $\frac{3}{4}$	2	Distance 110 <sup>0</sup>	
		mu sec		Magnitude 6 $\frac{1}{2}$	
	MH	10 20		mu sec	
	MZ	10 20		PPZ	0.2 2
2	iPKP	05 10 28		PPH	0.2 2
	ePP	12 46		MH	5 20
	iSKP	13 58		MZ	7 20
	eS	21.0	6	eP	03 49 01
	ePPS	25.9		i	13
	eSS	30.4		eG	51.3
10	eG	47.4		eR	52.1
	eR	53.1		Distance	14 <sup>0</sup>
2	Distance	130 <sup>0</sup>	6	eP	08 23 11
	Magnitude	6 $\frac{1}{4}$ - 6 $\frac{1}{2}$	7	ePP?	14 42 25
		mu sec		e	44 17
	MH	7 20		eG	15 03.3
	MZ	7 20		eR	06.2
2	iP	05 41 50			

Supplement: Times of P for additional shocks at China Lake

May 25	18 52 52
May 26	23 01 30
May 27	03 04 58, 17 14 52
May 28	01 16 40, 04 19 04, 19 40 35, 22 41 18
May 29	00 05 24, 07 36 13, 10 41 49
May 30	10 55 11
May 31	05 24 56 (pP 05 25 23), 13 34 36, 14 49 43, 21 14 50
June 1	03 37 23, 08 09 24

Supplement: Times of P for additional shocks at Barrett

May 22	22 13 21
May 23	08 26 45, 17 15 03
May 24	01 18 06, 02 32 39
May 25	20 48 31
May 28	16 10 58, 17 15 33

Violet M. Taylor  
Seismological Assistant

SEISMOLOGICAL LABORATORY  
220 North San Rafael Ave.  
Pasadena 2, California  
June 16, 1961

PROVISIONAL READINGS AT PASADENA  
(and auxiliary stations as noted)



Additional:

May 31	Barrett:			
	iP	14	18	34
	iS		19	34
	Palomar:			
	iP	14	18	44
	Hayfield:			
	eP	14	18	44
	Riverside:			
	iP	14	18	58
	iS		20	08
June 7	Pasadena:			
	iP	15	50	28

June 11 eG 06 00.8  
eR 06.1  
Distance 128°  
Magnitude 6½ - 6¾  
mu sec  
PPZ 0.05 1  
MH 15 20  
MZ 14 20

Continuation:

June 10	iP	08	58	04
	iS	09	03	00
	eL		04.5	
	Distance 32°			
10	iP2	20	41	45
	iS		49	54
8	iSS		53.8	
	iG		56.6	
	eR		59.3	
2	Distance 60°			
	Magnitude 6			
		mu	sec	
	PZ	0.1	1	
	PH	0.06	1	
	MH	28	20	
	MZ	14	20	
11	ePP	05	29	07
	eSKP		30	10
	i			37
12	iPS		39	07
	eSKKP?			37
	iPPS		40	19
	iSS		46.4	
	iSSS		52.0	

Interpretation doubtful  
11 iP 06 03 04  
12 eP 00 18 38  
eL 22.7  
12 iP 18 06 24  
13 iP 21 49 42  
ipP 50 19  
eS 59 29  
15 iP 23 35 41  
eS 44.2  
eR 52.0  
Distance 60°  
16 iP 07 20 54  
eS 31 29  
eSS 36.5  
eG 43.6  
eR 48.2  
Distance 85°

KEW  
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19 JUN 1961  
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SURREY.

Supplement: Times of P for additional shocks at China Lake

June 2	18 21 48, 18 35 20
June 3	03 31 23, 03 53 11, 04 33 05, 06 08 31, 15 42 29, 22 04 00
June 4	10 41 19, 14 09 36, 16 26 53, 20 19 14, 23 07 13 (i. 23 08 04)
June 5	15 57 05
June 6	07 06 09, 10 41 54
June 7	05 13 59 (pP 05 14 13), 13 17 29
June 8	09 47 15

Supplement: Times of P for additional shocks at Woody

June 9	15 55 01, 19 05 08
June 10	09 21 59, 11 40 32, 11 57 02

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SEISMOLOGICAL LABORATORY  
220 North San Rafael Ave.  
Pasadena 2, California  
June 23, 1961



PROVISIONAL READINGS AT PASADENA  
(and auxiliary stations as noted)

Additional:

June 11 iP 22 33 33

Continuation:

June 16 iP! 2 10 40 29

Dilatation from southeast

i 10 40 56

iPcP 41 11

i 34

i 55

ipP 42 21

iPP2 58

i 45 40

i 46 33

iS 47 17

esS 50.6

e(G) 55.3

Distance 58<sup>0</sup>

Depth 600 km

Magnitude 6

mu sec

PZ 1/2 1

PH 0.3 1

PPZ 2 1/2 2 1/2

PPH 2 3

iP 15 57 58

iP 11 06 29

iS 15 15

eSS 19.5

eL 22.9

Distance 63<sup>0</sup>

iP2 15 13 44

Compression

iPcP 15 16 40

iS 18.8

iL 23.4

eScS 24.4

Distance 30<sup>0</sup>

Magnitude 6

mu sec

PZ 0.3 1 1/2

PH 0.2 1

SH 2 20

MH 30 20

MZ 17 20

June 17 iP 18 46 00

eS 51.2

eG 54.2

eL 57.9

Distance 30<sup>0</sup>

18 iP 03 30 31

Dilatation

i 03 33 10

18 eP 08 13 23

iS 14 23

Magnitude 4 3/4

18 iP! 14 07 22

Dilatation from southeast

ePP 14 10 50

iS 17 37

eSS 23.5

eG 30.6

Distance 85<sup>0</sup>

mu sec

PZ 0.7 1 1/2

21 iP 02 54 52

21 iP 04 04 17

eS? 09 54

21 iP 20 43 56

i 44 25

i 47 04

23 iP2 08 58 58

Dilatation from northwest

eG 09 01.4

eR 02.3

2 Distance 15<sup>0</sup>

mu sec

PZ 0.4 1 1/2

PH 0.8 2

MH 26 20

MZ 13 20

23 eP 09 25 51

i 56

23 iP 10 17 46

27 JUN 1961  
16  
17

17

2

Supplement: Times of P for additional shocks at China Lake

June 11	22 12 57
June 13	02 32 32
June 14	18 47 18, 20 51 30
June 15	03 43 30

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SEISMOLOGICAL LABORATORY  
 220 North San Rafael Ave.  
 Pasadena 2, California  
 June 30, 1961



PROVISIONAL READINGS AT PASADENA  
 (and auxiliary stations as noted)  
 June 26 Distance 51°

Additional:

June 20	iP	09 55 43
20	iP	14 39 53
22	iP	07 54 55
22	iP	20 06 49

Continuation:

June 24	iP	01 28 55
24	iP	05 14 30
	eS	19.8
	eL	22.7
25	iP	09 21 17
25	iP	16 59 11
	e	17 09 26
	eS	36
8	eSS	15.2
	eG	21.2
2	eR	23.8
2	Distance	84°

		mu	sec
PZ		0.1	1
PH		0.1	1
SH		1	5
MH		9	20
MZ		5	20
27	eP	07 18	10
	ePP		22 36
	eSKS		28 52
	iPS		32 06
	iPPS		33 10
	iSS		38.2
11	eSSS		42.5
	eG		50.5
	eR		57.5
2	Distance	112°	
	Magnitude	6	

		mu	sec
	PZ	0.1	1
	SH	1½	6
	MH	3½	20
	MZ	2	20
25	eP	19 44	23
	e		44
26	iP	07 15	42
	i		48
	eS		26.5
	eG		39.9
	eR		43.0
26	Distance	90°	
10	iP2	14 56	23
	i		35
	iPcP		57 42
	eS	15 03	35
	eSS		07.6
	eG		09.1
2-	eR		10.8

		mu	sec
	MH	3½	20
	MZ	5	20
27	iP	08 02	31
	ipP		03 28
29	iP	09 35	39
	e		37 09
	eSKS		46 07
	ePS		47.4
	eSSS		55.6
	eG		58.5
8	eR	10 02	0
8	Distance	89°	
		mu	sec
	PZ	0.1	1
	MH	3	20
29	iP	14 10	37
	i		54
29	iP?	27 11	31
	e		19.9
	eL		30.8

Supplement: Times of P for additional shocks at China Lake

June 20	16 45 13, 21 28 24
June 21	19 08 32

Supplement: Times of P for additional shocks at Isabella

June 22	05 46 24
June 23	09 25 33, 09 51 49, 13 57 29

Supplement: Times of P for additional shocks at Woody

June 13	13 29 05 (pP 13 29 51), 13 46 36
June 14	23 58 23
June 15	22 38 24
June 16	03 28 40, 06 39 33
June 17	09 46 25, 22 00 37
June 18	16 58 28, 17 45 52
June 19	00 59 04, 02 57 35, 07 49 58, 08 11 11, 21 56 24, 22 26 58

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 Seismological Assistant

SEISMOLOGICAL LABORATORY  
220 North San Rafael Ave.  
Pasadena 2, California  
July 11, 1961

PROVISIONAL READINGS AT PASADENA  
(and auxiliary stations as noted)



Correction:

June 29 iP? 21 11 31  
 e 19.9  
 eL 30.8  
 Should read:  
 iP? 22 11 31  
 e 19.9  
 eL 30.8

July 7 iP 13 24 09  
 ePP 27 41  
 e 57  
 12 eSKS 35 01  
 eS 35.6  
 ePS 36.6  
 eSS 41.9  
 eSSS 45.8  
 eG 49.5  
 eR 53.8

Continuation:

July 1 iP 13 21 11  
 i 23  
 1 iP 19 01 56  
 4 iP 04 57 43  
 iS 59 31  
 4 iP 06 23 04  
 i 17  
 4 iP 11 10 49  
 iS 12 41  
 6 iP! 2 22 22 17  
 Compression from southwest  
 13 iPP-2 22 25 46  
 eSKS 32.5  
 eS 33 02  
 ePS 34.2  
 eSS 38.2  
 iG 45.5  
 eP'P' 48 16  
 iR 49.6  
 2 Distance 88<sup>0</sup>  
 Magnitude 6 $\frac{1}{2}$   
 mu sec  
 PZ 1 1  
 PH 0.2 1  
 PPZ 0.2 1  
 PPH 0.1 1  
 MH 17 20  
 MZ 21 21

2 Distance 94<sup>0</sup>  
 Magnitude 6 - 6 $\frac{1}{4}$   
 mu sec  
 PZ 0.1 1  
 MH 5 20  
 MZ 11 20  
 7 iP 22 32 17  
 8 e(S) 44 13  
 iP 02 48 06  
 Compression  
 e(S) 02 58.4  
 iSS 03 04.2  
 iG 11 41  
 6 eR 15.0  
 Distance 87<sup>0</sup>  
 mu sec  
 MH 5 20

Supplement: Times of P for additional shocks at China Lake

June 23 11 16 54  
 June 24 00 59 32, 12 23 46, 16 32 44, 17 10 03  
 June 25 02 40 59, 12 30 24, 19 48 54  
 June 26 02 54 57, 14 00 59, 16 52 00  
 June 27 03 29 09 (e 03 29 26), 05 49 57, 19 21 15  
 June 28 02 16 37, 16 07 30  
 June 29 10 35 34

Supplement: Times of P for additional shocks at Isabella

June 29 15 52 12, 17 18 38  
 June 30 04 29 55 (pP 04 30 42), 14 38 48

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 17 JUL 1961  
 RICHMOND,

Violet M. Taylor  
 Seismological Assistant

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SEISMOLOGICAL LABORATORY  
220 North San Rafael Ave.  
Pasadena 2, California  
July 24, 1961



PROVISIONAL READINGS AT PASADENA  
(and auxiliary stations as noted)

Additional:		July 8	mu	sec
July 4	Tinemaha:	PZ	0.1	1
	iP 04 57 01	PH	0.2	2
	i 58 03	PPZ	0.2	2
	King Ranch:	SH	3	10
	iP 04 57 28	MH	5	20
4	Tinemaha:	MZ	7	20
	iP 11 10 07	8 iP	22 01 36	
	iS 11 10	9 iP	06 39 23	
	King Ranch:	eScP	44 49	
	iP 11 10 34	eG	50.5	
		eR	53.4	
		Distance 49°		
		9 iP	16 54 52	
		i	55 11	
		10 iP2	04 01 07	
		ipP	34	
		isP	44	
		eS\	10 17	
		esS	11 05	
		ePS	11.8	
		eSS	14.8	
		Distance 70°		
		Depth 100 km		
		mu	sec	
		PZ	0.4	1 1/2
		PH	0.2	1 1/2
		SH	0.6	5

Continuation:  
July 8  
iP 2 15 47 26  
Compression  
ePP 15 51 01  
12 ePPP 53 06  
eSKS 58 07  
eS 58.5  
ePS 59.3  
eSS 16 03.8  
eG 11.0  
2- iR 14.5  
Distance 90°  
Magnitude 6 - 6 1/4

9 iP 16 54 52  
i 55 11  
10 iP2 04 01 07  
ipP 34  
isP 44  
eS\ 10 17  
esS 11 05  
ePS 11.8  
eSS 14.8  
Distance 70°  
Depth 100 km  
mu sec  
PZ 0.4 1 1/2  
PH 0.2 1 1/2  
SH 0.6 5

Supplement: Times of P for additional shocks at China Lake

July 1	00 09 50, 02 00 54, 08 12 18
July 2	02 18 30, 10 22 50, 17 00 10
July 3	08 35 23, 12 30 39, 14 59 14, 16 01 16
July 4	00 19 41, 02 32 41, 04 57 19, 11 10 25
July 5	03 59 29, 23 44 03
July 6	05 49 35 (pP 05 49 50)

Supplement: Times of P for additional shocks at Woody:

July 7	03 33 39, 07 55 16, 08 15 29, 12 46 31, 15 38 03, 16 10 14, 22 59 34
July 8	03 31 21, 03 38 13, 08 18 14, 11 28 29, 15 21 21, 15 53 04, 16 46 50, 19 22 30, 21 26 48, 22 24 59
July 9	05 04 19
July 10	12 27 46, 14 24 29, 14 33 43
July 11	16 38 39 (pP 16 39 02), 18 53 36
July 12	01 46 42, 13 40 38, 14 49 44, 17 32 34, 22 46 05
July 13	02 23 35, 07 09 04, 07 30 28, 13 57 04 (pP 13 57 24) 22 21 43
July 14	00 36 47, 01 20 19, 03 48 51, 04 33 21
July 15	00 35 12, 05 53 19, 14 13 23, 20 44 36
July 16	00 53 24, 05 35 09 (pP 05 36 03), 20 12 59, 23 14 24
July 17	03 36 30, 14 03 12

KEW OBSERVATORY  
27 JUL 1961  
RICHMOND

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Seismological Assistant



SEISMOLOGICAL LABORATORY  
 220 North San Rafael Ave.  
 Pasadena 2, California  
 July 25, 1961



PROVISIONAL READINGS AT PASADENA  
 (and auxiliary stations as noted)

Continuation:

July 10		12 58 36	July 18		mu	sec
	iP			PZ	0.2	1
	eG	13 02.4		PH	0.4	2
	eR	03.7		PPZ	0.5	2
	Distance	21 <sup>0</sup>		PPH	0.2	1½
11	eP <sup>1</sup> ?	09 50 53		SH	3¼	5
	ePP	53.1		MH	40	20
	eSS	10 10.5		MZ	38	20
	eSSS	15.3	18	iP	14 46 54	
	eR	33.9		i	47 04	
	Distance	130 <sup>0</sup> ?		ePP	50 22	
13	iP	10 45 14		19	iP	12 11 37
16	iP	14 14 25		20	iP	15 21 27
	eS or eSKS	25 05			e	23 23
	eR	42.0		20	eP	20 10 43
	Distance	90 <sup>0</sup>			e	57
16	iP	21 19 12		21	iP	13 19 59
	ipP	26			eSKS	30.4
17	iP	01 06 33			eS	30.7
	Compression				eSS	36.6
	eS	01 11 03			eG	43.0
	eL	13.1			eR	46.8
	Distance	27 <sup>0</sup>			Distance	88 <sup>0</sup>
17	eP	01 15 14		23	iP	00 09 43
17	iP	09 12 46		23	eP	14 16 26
	ePcP?	16 42			i	31
	eG	17.3			ePP	19.9
	eR	18.0			eS	27.1
	Distance	24 <sup>0</sup>			ePS	28.4
17	iP	16 32 16			ePPS	29.0
	eS	42 09			eSS	33.5
	eG	51.5			eG	39.8
	eR	56.0			eR	43.5
	Distance	76 <sup>0</sup>			Distance	89 <sup>0</sup>
18	iP <sup>2</sup>	14 16 29		23	iP <sup>2</sup>	14 43 46
	Dilatation from northwest				iPcP	46 59
15	iPP <sup>2</sup>	14 19 59			iS\	48 34
	iSKS	26 59			iG	49.5
	eS\	27 21		6	eR	50.2
	iPS	28 18			Distance	28 <sup>0</sup>
	iSS	33.4			Magnitude	5¾ - 6
	eSSS	36.5			mu	sec
	iG	40.0			PZ	0.3 1
	eP <sup>1</sup> P <sup>1</sup>	42 20			PH	0.1 1
	iR	44.5			SH	2¼ 5
2	e	45 49		23	eP	15 42 59
	Distance	88 <sup>0</sup>			i	44 19
	Magnitude	6½ - 6¾				

**KEW OBSERVATORY**  
 28 JUL 1961  
 RICHMOND, SURREY.

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SEISMOLOGICAL LABORATORY  
220 North San Rafael Ave.  
Pasadena 2, California  
July 28, 1961



PROVISIONAL READINGS AT PASADENA  
(and auxiliary stations as noted)

Continuation:

July 23	iP2	22 03 52	
	Compression from southwest		
	i	22 05 18	
	iPP	07 21	
	eSKS	14 15	
	iS	29	
	eSSS	24.0	
	iR	30.8	
	Distance 88°		
	Magnitude 7 - 7 1/4		
		mu	sec
	PZ	0.7	1
	PH	0.3	1
	MH	200	20
	MZ	100	20
23	iP	22 14 42	
	i	16 07	
23	iP	23 59 05	
24	iP	01 42 07	
24	iP	09 06 38	
24	iP	10 43 39	
25	iP	02 57 37	
	i	58 08	
25	eP?	06 09 28	
25	iP	18 53 04	
26	iP	09 32 03	
28	iP2	01 14 34	
	Dilatation from northwest		
	ipP	01 15 06	
	iPP1	16 58	
	ipPP	17 11	
	iScP	19 26	
	iS!!	21 55	
	isS	22 51	
	iScS	24 07	
	eSS	25.6	
	iR	31.9	
	Distance 54°		
	Depth 150 km?		
	Magnitude 6 1/4		

July 28		mu	sec
	PZ	0.5	1
	PH	0.2	1
	PPZ	0.5	1
	SH	13	8
28	iP	06 24 27	
	eSKS	34 57	
	eS	35 19	
	ePS	36.3	
	e	36.8	
	eSS	41.0	
	eSSS	44.8	
	eG	48.0	
	eR	51.6	
28	iP2	10 17 37	
	Dilatation from southeast		
	iG	10 20.6	
	iR	21.5	
	Distance 18°		
		mu	sec
	PZ	0.2	1
	PH	0.5	1
	MH	12	20
28	iP	10 42 06	
	Dilatation		
	iG	10 45.3	
	iR	46.2	
	Distance 18°		
		mu	sec
	PZ	0.4	1
	PH	0.2	1

Supplement: Times of P for additional shocks at China Lake

July 15	20 28 02
July 17	11 20 28
July 18	14 34 14, 15 29 03 (e 15 32 29), 16 32 26 (i 16 34 52), 17 01 26
July 19	18 12 17 (e 18 12 33), 18 38 15, 22 44 28
July 20	09 15 29 (e 09 17 33, e 09 18 54), 13 29 38

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OBSERVATORY  
31 JUL 1961  
R. D.

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Seismological Assistant

SEISMOLOGICAL LABORATORY  
 220 North San Rafael Ave.  
 Pasadena 2, California  
 PROVISIONAL READINGS AT PASADENA  
 (and auxiliary stations as noted)



August 8, 1961

Additional:		Aug. 1		mu	sec
July 16	iP	06 58 52	PZ	0.2	1
20	iP	08 48 59	PH	0.1	1
Continuation:			PPZ	0.5	2
July 28	iP	15 30 58	PPH	1½	4
28	iP	17 29 42	SH	6	8
29	iP	10 44 00	MH	40	20
29	iP	16 39 27	MZ	35	20
	i	40 03	1 eP	07	40 03
	eS	49 37	i		41 47
	eSS	54.5	1 iP	09	53 29
	eG	17 00.4	i		54 56
	eR	03.8	1 iP	14	35 05
	Distance 80°		3 iP	03	16 38
g. 30	iP	15 48 04	Dilatation		
①	iP2	05 52 43	e	03	18 37
	Compression		eS		23 33
2	iPP2	05 56 23	3 iP	23	46 37
	iS	06 03 33	eS		57 29
	iPS	04.5	eSSS	24	07.0
	iSS	09.1	eG		10.1
	iSSS	12.9	eR		13.6
	iG	16.0	Distance 90°		
2	iR	19.4			
	Distance 90°				
	Magnitude 6½ - 6¾				

pplement: Times of P for additional shocks at China Lake

July 21	01 00 41, 01 23 19 (e 01 23 47), 04 43 13, 19 03 43, 19 17 28, 22 52 44
July 22	02 54 49, 16 31 25
July 23	12 21 27, 22 29 59, 22 53 51 (e 22 54 05), 23 35 01
July 24	01 59 20, 02 02 40, 02 11 43, 02 16 30, 03 57 38
July 25	09 03 35, 18 10 51, 18 58 01, 19 09 02
July 26	01 45 46
July 27	02 19 20, 06 20 36 (e 06 20 50), 08 38 55, 10 53 31, 11 46 24

pplement: Times of P for additional shocks at Isabella

July 19	04 09 33, 06 46 06, 09 33 47, 13 56 44
---------	--

pplement: Times of P for additional shocks at Woody

July 15	06 16 40
July 17	14 15 40, 21 57 08
July 18	07 29 22, 19 42 05 (i 19 42 43)
July 19	05 42 41, 09 31 08, 10 48 26, 19 58 16
July 20	03 17 27 (i 03 17 48), 17 34 19
July 22	10 39 42, 22 42 14 (i 22 42 24)
July 23	13 47 44, 14 29 20, 15 31 14
July 24	00 47 39, 16 21 53
July 25	17 00 13 (i 17 00 26), 20 39 46
July 26	13 10 55, 16 37 47
July 27	17 42 58 (i 17 43 11), 17 46 41
July 28	00 11 38, 00 47 13 (i 00 47 52)

KEW OBSERVATORY  
 11 AUG 1961

Violet M. Taylor  
 Seismological Assistant

KEW  
OBSERVATORY  
21 AUG 1961  
RICHMOND,  
SURREY.

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SEISMOLOGICAL LABORATORY  
220 North San Rafael Ave.  
Pasadena 2, California  
August 15, 1961

PROVISIONAL READINGS AT PASADENA  
(and auxiliary stations as noted)



Additional:		Aug. 5		iP	02 32 55
July 31	iP	00 07 46.4		i	33 09
	iS	08 17		eS	38 13
	King Ranch:			eG	40.8
	iP	00 07 21		eR	42.5
	Woody:			Distance	35°
	iP	00 07 28.8	5	iP	09 38 56
	Isabella:			Dilatation	
	iP	00 07 33.4		i	09 39 25
	Santa Barbara:			eS	48 07
	iP	00 07 33.4		e	52.7
	iS	53.2		eG	54.1
	Fort Tejon:			eR	56.4
	iP	00 07 33.9		Distance	65°
	Tinemaha:		7	eP	12 34 48
	iP	00 07 44.6		eSKS	45 15
	Magnitude	4½		eSSS	56.4
	Felt at San Luis Obispo			eG	59.7
				eR	13 04.7
				Distance	93°
Continuation:					
Aug. 4	eP	23 03 45			
	i	57			
	eS	12 41			
	eG	20.5			
	eR	25.2			
	Distance	70°			

Supplement:		Times of P for additional shocks at China Lake			
July 28		05 07 49, 15 08 22, 16 51 16, 17 04 56, 17 11 08			
July 29		03 06 43, 21 23 57			
July 30		00 05 19, 07 35 16, 14 19 06			
July 31		00 37 42			
Aug. 1		01 07 37 (i 01 07 55), 01 30 32, 03 27 01, 09 43 13,			
		10 42 50, 16 30 34, 19 39 22 (i 19 39 50), 22 24 13			
Aug. 2		01 30 13, 02 16 52, 02 50 19, 05 07 27, 12 23 00,			
		13 36 21, 14 42 31, 20 27 27			
Aug. 3		03 21 44, 07 09 43, 14 34 03, 15 31 14			
Aug. 6		03 33 01, 19 58 12			
Aug. 7		04 13 44, 06 06 01, 07 36 59, 17 10 23 (pP 17 10 40),			
		23 42 32			
Aug. 8		00 31 23, 05 44 32, 07 31 41, 08 00 03, 12 57 07,			
		13 45 32, 15 51 01, 18 06 41, 23 52 53, 23 56 55			
Aug. 9		03 35 50, 06 07 08, 07 59 53			
Aug. 10		05 47 24, 12 15 28 (pP 12 16 43)			

Supplement:		Times of P for additional shocks at Woody			
Aug. 4		07 29 03, 14 36 20, 18 02 09, 18 32 03, 18 45 52,			
		23 44 07 (pP 23 45 48)			
Aug. 5		01 05 47, 01 20 30, 01 36 55, 06 20 11, 08 28 18			

Violet M. Taylor  
Seismological Laboratory

KEW  
OBSERVATORY

21 AUG 1961

RICHMOND,  
SURREY.

SEISMOLOGICAL LABORATORY  
220 North San Rafael Ave.  
Pasadena 2, California  
August 16, 1961

PROVISIONAL READINGS AT PASADENA  
(and auxiliary stations as noted)



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Continuation:

Aug.	Time	Station	mu	sec
8	12 26 07	iP 2		
		Dilatation from northwest		
	12 26 25	i		
	27 51	iPP\		
	32 25	iS\		
	35.5	iG		
	38.1	iR		
		Distance 45°		
		Magnitude 6 - 6 1/4		
		mu	sec	
		PZ	0.4	1
		PH	0.1	1
		PPZ	0.1	1
		SH	3	10
		MH	12	20
		MZ	9	20
	16 15 20	iP		
		Compression		
10	06 48 33	iP		
10	12 16 46	iP		
11	00 53 16	iP		
11	10 37 46	iP		
	48 26	eS		
	11 01.7	eG		
	04.2	eR		
		Distance 88°		
11	16 02 55	iP 2		
		Compression from west		
	16 03 06	ipP		
	12 08	iS\		
	35	i		
	17.0	eSS		
	20.2	eG		
	23.9	eR		
	30 38	eP\ P\		
		Distance 75°		
		Depth 40 km		
		Magnitude 7		
		mu	sec	
		PZ	3	4
		PH	2	6
		SH	15	5
		MH	100	24

Aug.	Time	Station	mu	sec
11	23 45 11	iP		
		i		17
14	19 02 58	iP\		
	13 05	iS		
	18.1	eSS		
	26.5	eR		
		Distance 82°		
		mu	sec	
		PZ	0.3	1
		MH	1 1/2	22
14	23 41 28	iP\		
	44 55	ePP		
	52 19	iS		
	53 28	i		
	24 04.7	eG		
	08.8	eR		
		Distance 90°		
		Magnitude 6 - 6 1/4		
		mu	sec	
		PZ	1/4	1
		MH	4	20
		MZ	4	20
15	19 15 59	iP\		
	26 00	iS		
	45	i		
	39.9	iR		
		Distance 80°		
		mu	sec	
		PZ	0.3	1 1/2
		MH	3	20
16	03 46 33	iP		
		i		44

Supplement: Times of P for additional shocks at China Lake  
Aug. 10 07 43 55

Violet M. Taylor  
Seismological Assistant

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28 AUG 1961

RICHMOND, SURREY.

SEISMOLOGICAL LABORATORY  
220 North San Rafael Ave.  
Pasadena 2, California

August 24, 1961

PROVISIONAL READINGS AT PASADENA  
(and auxiliary stations as noted)



Continuation:  
Aug. (17)

iP 2 21 27 11  
Compression  
ipP 48  
isP 28 07  
iS 35 56  
i 36 56  
iP i P 55 28

Distance 67°<sup>0</sup>, Depth 150 km  
Magnitude 6<sup>3</sup>/<sub>4</sub>

mu sec  
PZ 1 1 1 1/2  
PH 1/2 1 1/2  
SH 20 12  
iP 11 14 48  
iP! 2 05 19 22  
Dilatation from Southeast  
iPcP 53  
ipP! 21 18  
iS! 27 03  
iScS 28 13  
iP i P 0 48 03

Distance 63  
Depth 600 km  
Magnitude 7

mu sec  
PZ 20 5  
PH 12 5  
iP 2 05 45 49  
Compression  
iS 56 05  
iG 06 07.3  
eR 11.0  
eP i P 1 12 28

Distance 83°<sup>0</sup>  
Magnitude 7<sup>1</sup>/<sub>4</sub>

mu sec  
PZ 3 1 1/2  
PH 1 1 1/2  
MH 30 20

Aug. 19

MZ mu sec  
30 20  
Surface waves diminished by traveling along Pacific margin

iP 15 00 50  
i 01 01  
i 27  
iP 16 11 03  
ipP 31  
eP? 01 43.0  
eS? 53.7  
eG 02 06.3  
eR 09.9

Distance 87°<sup>0</sup>?  
iP 04 29 24  
iS 58  
Magnitude 4<sup>3</sup>/<sub>4</sub>  
iP 05 15 16  
Compression  
ipP 17 14  
isP 18 13  
eS 24 22

Distance 78°<sup>0</sup>  
Depth 600 km

e(P) 13 46 18  
iP 02 18 06  
iP 08 02 54  
iP 16 18 28  
Compression  
ipP 18 49  
iS 29 02  
iR 40.3

Distance 86°<sup>0</sup>  
Depth 80 km

iP 17 12 28  
e(P) 09 12 02  
e(S) 22.4  
eR 39.3  
Distance 90°<sup>0</sup>?

Supplement: Times of P for additional shocks at China Lake

Aug. 9	16 41 21
16	04 16 57, 09 09 43, 19 31 49, 20 39 41
17	01 17 26, 03 01 47, 05 19 05, 06 47 47, 13 07 38

Supplement: Times of P for additional shocks at Woody

Aug. 10	17 35 21
11	06 20 54, 07 03 58, 19 32 20, 23 23 11 (iP 29)
12	13 17 06
13	02 59 23, 03 39 57, 04 00 40, 06 14 31, 10 26 35, 13 45 58,
	16 01 35, 18 33 58, 22 10 24
14	13 52 50, 22 17 40, 22 34 58, 23 48 56

Violet M. Taylor  
Seismological Laboratory

- 5 SEP 1961

RICHMOND, SURREY.

SEISMOLOGICAL LABORATORY  
220 North San Rafael Ave.  
Pasadena 2, California  
August 31, 1961

PROVISIONAL READINGS AT PASADENA  
(and auxiliary stations as noted)



Additional:

Aug. 20	Barrett:			
	iP	04 28	55.2	
	iS	29	05.4	
	El Centro:			
	eP	04 29	02.9	
	iS		16.9	
	Palomar:			
	iP	04 29	06.4	
	iS		24.9	
	Hayfield:			
	iP	04 29	11.9	
	Riverside:			
	iP	04 29	18	
	Epicenter about			
	32.9 N	116.7 W		

Aug. 23	Palomar:			
	iP		01 00	59
	Riverside:			
	iP		01 01	10
	iS			27
24	iP		05 03	54
25	e(P)		07 06	30
	e(S)			12.2
	eG			14.5
26	iP		19 02	18
	i			28
27	eP		01 02	09
	iL			05.1
27	iP		15 38	19
	eS			46.2
	iR			55.4

Continuation:

Aug. 22	iP	23 20	05	
	iS		33	
	Distance	210±	km	
	Magnitude	4½		
	Foreshock			
22	Palomar:			
	iP	23 19	44.5	
	El Centro:			
	eP	23 19	47.4	
	eS		55	
	Riverside:			
	iP	23 19	55.7	
	iS		20 13	
23	iP	01 01	20	
	Dilatation from			
	southeast			
	iS	01 01	46	
	Distance	210±	km	
	Magnitude	4¾		
	Felt in San Diego and			
	Imperial Counties.			

27	iP		16 32	48
	i			59
	iS		41	27
	iG		48	54
	eR			51.7
	Distance	65°		
	Depth	40 km ±		
	Magnitude	6½		
		mu	sec	
	PZ	0.15	1.5	
	SH	1.5	7	
	MH	5	20	
27	iP		17 00	16
	i			31
	iS		10	37
	iG		23.1	
	eR			25.6
	Distance	85°		
	Depth	50 km ±		
	Magnitude	6¼ - 6½		
		mu	sec	
	PZ	0.2	1½	
	SH	3	7	
	MH	1½	20	

Supplement: Times of P for additional shocks at China Lake

Aug. 17	19 34 53			
Aug. 22	22 29 35,	22 36 01		
Aug. 23	23 02 51			
Aug. 24	10 02 37			

Supplement: Times of P for additional shocks at Woody

Aug. 19	01 25 17,	02 54 11 (pP 02 54 24)	06 23 26 (S 06 25 21),	
	08 19 27,	12 56 11 (pP 12 56 24),	14 30 01,	16 13 07,
	20 45 27,	20 48 25		
Aug. 20	00 17 05,	02 38 16,	05 37 00,	06 34 52,
	09 19 56,	10 32 55,	18 08 47	
Aug. 21	00 41 05,	01 40 22,	03 35 17,	11 28 15
Aug. 22	00 16 05,	06 23 24		

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SEISMOLOGICAL LABORATORY  
 220 North San Rafael Ave.  
 Pasadena 2, California  
 Sept. 6, 1961



PROVISIONAL READINGS AT PASADENA  
 (and auxiliary stations as noted)

Additional:

Aug.	Barrett:			
22	iP	23	19	42.8
	iS			49.8
23	iP	01	00	57.6
	iS		01	04.4
24	iP	22	52	16
	ipP			28
25	iP	06	31	24

Sept.				
1	iP	00	24	38
	iP'		28	12
	iPP2		29	37
	i		30	29
	iSKS		34	56
10	iPKKP		38	20
	iPPS?		39.7	
	iSS		46.8	
	iR	01	07.8	

Continuation:

Aug.				
28	iP	06	38	57
	ipP		39	42
	iS		47	35
28	iP	07	52	47
28	eP?	09	20	15
28	iP!	09	55	16
	Dilatation			
28	iP	20	35	47
	iS		43	46
	iG		49.9	
	iR		52.9	
	Distance 59°			
		mu	sec	
	PZ	1/2	1 1/2	
	MH	3	20	
28	iP	21	37	41
	ipP		38	06
29	iP	14	59	01
31	iP!	01	58	11
	Dilatation from southeast			
	i	01	58	40
	iS'	02	05	58
	e		06	50
	Distance 56°			
	Magnitude 7 - 7 1/4			
		mu	sec	
	PZ	5	1 1/2	
	SH	10	2	
31	iP!	02	06	41
	i		07	15
	iS'		14	26
	i		15	30
	Distance 56°			
	Magnitude 7 1/2			
		mu	sec	
	PZ	13	1	
	SH	50	2	

	Distance	118°		
	Magnitude	7 1/2		
		mu	sec	
	PZ	1	20	
	PPZ	5	5	
	PPH	5	5	
1	iP	04	48	55
	ipP		49	34
1	iP	16	47	50
1	iP	16	52	08.6
	iS			23
	Magnitude 4 1/2			
	Felt sharply at Tehachapi, Kern County			
1	iP	18	56	53
	Dilatation from southeast			
	iPcP	18	59	48
	iS	19	02	07
	iScP		03	47
	eL		04.3	
2	Distance 29°			
	Magnitude 6 1/2			
		mu	sec	
	PZ	2	1 1/2	
	PH	2	1 1/2	
	SH	4	28	
	MH	10	20	
	MH	25	12	
2	eP	00	33	50
	i		34	08
	i			26
	e(S)		40	11
	eL		43.4	
	Distance 40°?			

Supplement: Times of P for additional shocks at Woody

Aug.	20	15	21	25
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KEW  
 OBSERVATORY  
 11 SEP 1961  
 RICHMOND.

Violet M. Taylor  
 Seismological Assistant



B

SEISMOLOGICAL LABORATORY  
220 North San Rafael Ave.  
Pasadena 2, California  
Sept. 12, 1961

PROVISIONAL READINGS AT PASADENA  
(and auxiliary stations as noted)



Continuation:

Sept. 2	eP	11 10 08	
3	iP	09 28 53	
4	iP2	09 57 35	
	Compression		
	ipP	09 57 49	
1	iScP	10 03 10	
	iS	04 18	
	eScS	07.4	
	eSS	07.8	
	eG	08.8	
	eR	10.5	
2	Distance 47°		
		mu	sec
	PZ	0.2	1
	PH	0.1	1
	SH	0.6	2
	MH	1	20
	MZ	1	20
5	eP?	02 47 49	
	e	48 06	
5	iP2	11 41 14	
	Dilatation from northwest		
1	ipP	11 41 33	
	ePP <sup>1</sup>	42 38	
	iS	46 36	
	iG	48.9	
	iR	50.5	
2	Distance 33°		
	Magnitude 6 - 6 $\frac{1}{4}$		
		mu	sec
	PZ	0.6	1
	PH	0.2	1
	PPZ	0.5	2

Sept. 5	SH	9	9
	MH	25	20
	MZ	17	20
8	iP	04 56 41	
	Compression		
	iG	05 00.7	
	eR	02.1	
	Distance 22°		
8	eP <sup>1</sup>	<del>11 41 26</del>	
	iP <sup>1</sup>	45 05	
	iPP2	46 22	
	iPPP	48 33	
	iSKS	51 52	
	i	53.8	
12	iPKKP	55 25	
	iPS	55.9	
	iPPS	57.5	
	iSS	12 02.4	
	iG	16.9	
	eR	23.9	
	Distance 120°		
	Magnitude 7 $\frac{1}{2}$ - 7 $\frac{3}{4}$		
		mu	sec
	PZ	1	20
	PPZ	4	6
	PPH	3	5
9	iP	19 18 34	
	eS	24.9	
	eL	29.0	
	Distance 42°		
10	iP	04 56 29	
	i	58 24	
	eL	05 05.5	

Supplement: Times of P for additional shocks at China Lake

Aug. 23	02 49 14, 03 39 05
Aug. 24	13 50 29, 21 10 54
Aug. 25	05 48 44
Aug. 26	18 15 13
Aug. 27	04 28 17, 18 10 25
Aug. 28	07 07 22, 08 11 54, 12 24 23, 15 24 44, 18 12 30
Aug. 29	04 28 34, 06 06 52 (pP 06 07 05), 10 16 44, 12 00 01, 21 46 30
Aug. 30	02 33 02 (pP 02 33 20), 02 38 56, 03 47 24, 03 54 52, 11 00 51
Aug. 31	00 35 18, 04 13 39

Supplement: Times of P for additional shocks at Isabella

Aug. 31	15 08 53
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Supplement: Times of P for additional shocks at Woody

Sept. 1	04 41 51 (i 04 42 02)
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Seismological Assistant

**KEW  
OBSERVATORY**

15 SEP 1961

**KEW  
OBSERVATORY**

**18 SEP 1961**

**RICHMOND,  
SURREY.**

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SEISMOLOGICAL LABORATORY  
220 North San Rafael Ave.  
Pasadena 2, California  
Sept. 15, 1961



PROVISIONAL READINGS AT PASADENA  
(and auxiliary stations as noted)

Additional:

Sept. 1	China Lake:			
	iP	16	52	06.4
	Fort Tejon:			
	iP	16	51	57.4
	Mt. Wilson:			
	iP	16	52	08.6
	Riverside:			
	iP	16	52	15.0
	Woody:			
	iP	16	51	59.3
	iS		52	06.6
	Isabella:			
	iP	16	51	57.6
	King Ranch:			
	iP	16	52	08.4
9	iP	09	28	05

Sept. 12	iP	19	19	33
	Compression from southeast			
	i!	19	19	36
	i(S)	20	15	
	Distance 360± km			
	Magnitude 5.3			
	Reported felt in El Centro, and by a few persons at San Diego.			
13	iP	21	31	54
	eSKS		42	21
	iS		43.5	
6	eSS		48.2	
	eG		54.7	
2	eR		59.5	
	Distance 90°			

Continuation:

Sept. 11	iP	02	55	24
	eS	03	02.3	
	eG		05.4	
	eR		06.3	
	Distance 44°			
11	iP	04	42	35
	eG		44.8	
	eR		45.3	
	Distance 14°			
12	eP	00	47	31
	eS		48.6	
12	eP	01	00	41
	eS		01	48
12	eP	01	10	05
	eS		11	11
12	iP	11	28	06
12	iP	12	38	14

15	eP	02	00	15
	ePP		04	40
	ePPP		07	07
	eSKS		11	11
	ePS		14.1	
11	ePKKP		15	53
	eSS		20.0	
	eG		30.0	
	e(R)		47.0	
	Distance 107°			
			mu	sec
	MH		4	20
	MZ		3	20

SUPPLEMENT: Times of P for additional shocks at China Lake

Sept. 5 21 20 42

Supplement: Times of P for additional shocks at Woody

Aug. 26	02 58 17, 14 42 55
Sept. 1	04 41 51 (i 04 42 02), 16 36 10, 20 21 42
Sept. 2	01 59 29, 06 31 32, 07 44 49, 09 15 38, 10 10 18, 18 14 51
Sept. 3	04 55 27, 04 57 26, 05 01 24, 17 39 18
Sept. 4	01 01 13, 03 28 59, 05 03 40, 13 47 25, 18 52 10, 19 19 47
Sept. 5	00 57 56, 02 33 04, 06 31 19, 09 22 17 (i 09 22 32), 10 43 03 (i 10 43 17), 13 37 29 (i 13 37 43), 14 05 53
Sept. 6	15 40 23, 20 14 03
Sept. 7	02 58 15, 20 27 50
Sept. 8	00 11 43 (pP 00 12 08)
Sept. 9	00 00 00, 09 17 52, 09 27 57, 11 55 07, 15 36 30

Violet M. Taylor  
Seismological Assistant

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SEISMOLOGICAL LABORATORY  
220 North San Rafael Ave.  
Pasadena 2, California  
Sept. 22, 1961

PROVISIONAL READINGS AT PASADENA  
(and auxiliary stations as noted)  
Sept. 18

Additional:

Sept. 12	Barrett:			
✓	iP	19	19	04.3
	iS			18.4
✓	Hayfield:			
	iP	19	19	06.5
✓	Riverside:			
	iP	19	19	20.3

	PZ			
	eP	18		
	iP	18		
	iP?	18		
	iP	18		
	iS			
	iP <sup>2</sup>	19		



Continuation:

Sept. 16	eP	03	27	54
16	iP	12	21	40
16	eP	13	42	32
16	iP	17	02	55.0

	Compression from southeast		
	ipP	02	38 38
	i		39 41
	iS		45 37
	iScS		46 01
	iSS		51.0
	esSS		54.0
	iG		57.5
	iP'P'	03	03 57

	Barrett:			
	iP	17	02	22.3
	iS			35.1
	Hayfield:			
	iP	17	02	31.6
	Magnitude	4		

Sept. 16	iP	19	50	14.9
	iS			39.9

Distance 78°  
Depth 550 km  
Magnitude 6½

	Magnitude	4¼		
17	eP	08	54	53
	eSKS?	09		06.2
	eS?			07.1
	eSS			13.2
	eR			25.1

	PZ			
	PH	1		1½
	SH	2		3
	iP	06	22	35
	iP <sup>2</sup>	09	54	19

	Distance	103°?		
17	iP	15	58	55
	eG	16		01.8
	eR			02.6

	Compression from southeast		
	iP <sub>c</sub> P	09	56 01
	iS	10	00 51
	iScS		04.3
	eG		05.3
	iR		07.5

	Distance	16°		
17	iP	23	35	35
	eSS			48.5
	eG	24		01.9
	eR			06.5

Distance 45°  
Magnitude 6¼ - 6½

	Distance	68°		
18	iP	02	29	17
	eG			32.1
	eR			33.5
	Distance	17°		

	PZ			
	PH	0.5		2
	SH	3		9
	MH	18		20
	MZ	7		20

Supplement: Times of P for additional shocks at Woody

Sept. 8	03 13 50, 06 06 43
Sept. 10	01 24 21, 01 53 12, 02 06 37, 03 03 48, 04 23 57, 18 21 23, 18 27 07
Sept. 11	06 08 29 (pP 06 09 02, sP 06 09 13), 09 11 02, 09 55 29 (i 09 55 43), 14 59 47, 22 24 34 (i 22 25 29), 23 58 34 (i 23 58 46)
Sept. 12	00 28 15, 01 26 56 (e 01 27 52), 05 44 37, 08 12 56, 09 34 36, 12 10 11
Sept. 14	01 18 20, 06 26 38, 18 56 16 (pP 18 58 17) 22 02 25
Sept. 15	10 19 22

Violet M. Taylor  
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NEW  
OBSERVATORY  
28 SEP 1961  
RICHMOND,  
SUNSET

SEISMOLOGICAL LABORATORY  
220 North San Rafael Ave.  
Pasadena 2, California  
Sept. 28, 1961



PROVISIONAL READINGS AT PASADENA  
(and auxiliary stations as noted)

Additional:

Sept. 12	Barrett:			
	iP	00	46	44
	iS		47	31
12	Barrett:			
	iP	00	59	56
	iS	01	00	45
12	Barrett:			
	iP	01	09	18
	iS		10	07
16	Barrett:			
	iP	19	49	49.6
	iS			56.3
	Hayfield:			
	iP	19	49	51.3
	Riverside:			
	iP	19	50	04.5
	iS			22.2

Sept. 22	eP	04	45	21
23	iP	03	08	36
23	iP	03	59	54
23	iP	08	28	50
	ipP		29	06
(24)	iP2	19	09	43
	Dilatation from southeast			
	ipP	19	09	56
	isP		10	03
	iPcP		13	27
	ipPcP			44
	eS		14.0	
	eR		16.6	
	Distance 23 <sup>0</sup>			

Continuation:

Sept. 19	iP	18	36	41
19	iP	21	53	35
20	iP!	05	04	45
	iS		05	09
	Distance 2 <sup>0</sup>			
	Magnitude 4			
	Felt at Descanso			
(20)	iP2	19	16	47
	i			52
11	ePP1	20	36	
	eS	27	51	
	ePS	29.2		
	eSS	33.8		
	iG	41.7		
	iR	45.8		
2	Distance 94			
	Magnitude 6 $\frac{1}{4}$ - 6 $\frac{1}{2}$			
		mu	sec	
	PZ	0.5	1	
	PH	0.1	1	
	PPZ	0.6	3	
	MH	7	20	
	MZ	7	20	
21	eP	10	31	14
21	iP	18	31	00

		mu	sec	
	PZ	$\frac{3}{4}$	2	
	PH	$\frac{1}{4}$	2	
24	iP	21	53	00
	i			09
	i			14
	eS	22	03.1	
	eSS		08.5	
	eG		13.5	
	eR		17.5	
	Distance 80 <sup>0</sup>			
25	iP	02	33	52
	i		34	28
25	iP	05	35	55
	eS		41.6	
	eG		43.6	
	eR		45.3	
	Distance 36 <sup>0</sup>			
	Magnitude 5 $\frac{3}{4}$ - 6			
		mu	sec	
	PZ	0.3	1 $\frac{1}{2}$	
	PH	0.1	1	
27	iP	01	59	52
	eG	02	03.7	
	Distance 20 <sup>0</sup>			

Supplement: Times of P for additional shocks at China Lake

Sept. 16	00 19 40, 05 06 30, 09 13 03 (i 09 13 15),
	15 20 35, 17 27 45 (pP 17 27 58), 20 12 29
Sept. 17	06 21 07
Sept. 18	15 50 16
Sept. 19	00 24 50, 09 31 32 (e 09 32 32), 22 03 35
Sept. 21	03 17 01, 04 49 54

Violet M. Taylor  
Seismological Assistant

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SEISMOLOGICAL LABORATORY  
220 North San Rafael Ave.  
Pasadena 2, California  
Oct. 3, 1961



PROVISIONAL READINGS AT PASADENA  
(and auxiliary stations as noted)

Continuation:

Date	Time	Station	Reading	Time	Station	Reading
Sept. 27	06 45 03	iP!	2	Sept. 28	03 36 52	iP
		Compression from southwest			40 06	ePP
	06 46 59	ipP			46 54	eS
	47 18	ipPcP			56.3	eSSS
	58	isP			04 01.3	eR
	54 08	eS		2	Distance 81°	
	55.5	eSP			Magnitude 6	
	57.7	esS			mu	sec
	07 05.7	eG			PZ	0.1 1
	14 45	eSKPP'			PH	0.05 1
	Distance 78°				PPZ	0.2 2½
	Depth 550 km				SH	1½ 8
	Magnitude 5¾ - 6				MH	6 20
					MZ	5 20
				29	iP	08 32 45
				29	eP	<del>19 21 12</del>
					ePKP	24 40
					i	25 02
27	11 28 26	eP			ePP	35
	34.6	eG			iSKS	31 59
	Distance 29°				iPS	34 58
27	12 26 23	iP			eSS	41.6
	27 50	e			eR	57.7
	44.9	e			Distance 109°	
	13 06.2	eR		29	e	22 46 54
27	19 28 30	iP			i	53 52
	29 58	iPP			eR	23 02.5
	34.3	eS		Oct. 2	iP	06 06 33
	37.6	eG			i	39
	Distance 40°			2	iP	06 20 34
27	19 34 39	iP			i	41
	50	e			i	53
	40 15	eS		2	iP	06 40 41
	44.5	iG			ipP	41 00
	Distance 40°			2	iP	06 43 59
27	21 20 19	iP			ipP	45 11
28	01 43 08	iP'		2	iP	07 15 32
	25	ipP'			i	37
	46 27	eSKP			e	19 11
	38	iPKS				
	54	ipSKP				
	47 00	isSKP				
	02 25.5	eR				
	Distance 132°					
	Depth 60 km					

KEW  
OBSERVATORY  
- 6 OCT 1961  
RICHMOND,

Supplement: Times of P for additional shocks at China Lake  
Sept. 28 12 22 34 (pP 12 23 01)

Supplement: Times of P for additional shocks at Woody  
Sept. 23 10 04 41, 11 21 47, 21 27 38  
Sept. 24 04 52 58, 17 11 33  
Sept. 25 01 58 40, 05 32 10, 06 36 22, 08 10 04, 09 36 42

Violet M. Taylor  
Seismological Assistant

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SEISMOLOGICAL LABORATORY  
220 North San Rafael Ave.  
Pasadena 2, California  
October 13, 1961



PROVISIONAL READINGS AT PASADENA  
(and auxiliary stations as noted)

Correction:

Oct. 2	iP	06 44 59	Oct. 7	iP	15 57 07
	ipP	45 11		i	21
	should read:			iL	59.7
	iP	06 43 59	7	iP	17 37 54
	ipP	44 11	8	iP	12 53 28

Additional:

Sept. 20	Barrett:		10	iP	08 38 43
	iP	05 04 19.0	10	eS?	17 51 06
	iS	28.6	10	iP	18 55 29
	Hayfield:		11	iP	07 10 37
	iP	05 04 25.8		eS?	16 18
	Riverside:			eL	20.0
	iP	05 04 24.2	11	eP	09 40 59

Continuation:

Oct. 4	eP	02 35 54		eR	06.6
	ePP	39 30		Distance 88°	
	eS	46.0	12	eP	06 02 22
	ePS	47.7			
	eSSS	55.7			
	eG	58.5			
	eR	03 01.9			
	Distance 85°				
5	iP	18 21 26			
5	iP	19 07 20			
6	eP	08 07 49			
7	iP	08 26 26			
7	iP	10 04 48			
	e(S)	11.8			

Supplement: Times of P for additional shocks at China Lake

Oct. 3	06 16 31, 19 12 22, 22 34 37, 23 33 47
Oct. 4	04 40 51, 06 27 15

Supplement: Times of P for additional shocks at Woody

Sept. 22	16 15 39
Sept. 23	12 46 14
Sept. 25	01 33 12, 20 29 05
Sept. 26	04 11 02, 07 09 58, 19 08 54
Sept. 27	18 32 24, 21 27 42, 21 43 01
Sept. 28	04 31 11, 11 25 02, 17 50 14, 21 45 12, 23 13 19
Sept. 29	05 47 28, 08 31 04, 09 04 12, 11 35 30, 12 07 35, 17 01 46
Sept. 30	00 32 13, 11 05 56, 13 24 41, 18 56 37 (i 18 59 24
Oct. 1	03 39 00, 07 56 46

KEW  
OBSERVATORY  
17 OCT 1961  
RICHMOND,  
SURREY.

Violet M. Taylor  
Seismological Assistant

23 OCT 1961

RICHMOND,  
SURREY.

SEISMOLOGICAL LABORATORY  
220 North San Rafael Ave.  
Pasadena 2, California  
October 20, 1961

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PROVISIONAL READINGS AT PASADENA  
(and auxiliary stations as noted)



Additional:

Oct. 11 iP 12 38 45  
i 39 08  
12 eP 08 37 25

Continuation:

Oct. 13 iP' 05 17 44  
e 18 29  
ePP 19 23  
ePS 29 28  
eSS 36.0  
eG 49.9  
eR 56.4

Distance 120°  
13 iP' 11 05 25  
ePS 16 20  
eSS 23.2  
eG 36.0  
eR 43.4

Distance 120°  
13 iP 17 40 10  
Dilatation  
i 17 40 18  
i 59

14 iP 22 08 55  
i 09 20  
eL 24.5

15 iP 06 12 30

15 eP 21 06 48  
i 54  
eG 09.1  
eR 09.7

Distance 14

16 iP 01 17 19

18 iP 03 02 32

i 48

eL 28.5

18 iP 10 51 31

Oct. 18 iP 17 04 18

Compression

i 17 04 51

ePP 07 26

iS 14 32

iSS 20.1

iSSS 23.5

iG 26.0

eP"P" 30 52

iR 31.4

Distance 82°

Magnitude 6½

mu sec

PZ 0.5 1½

PH 0.4 2

PPZ 1 3½

SH 7 24

MH 63 20

MZ 28 20

18 iP 18 22 49

e 23 40

19 iP! 05 10 14.2

Dilatation from

north and slightly

east

iS 05 10 39.7

Magnitude 5.3

Epicenter probably

near Walker Pass,

about 35° 46' N,

118° 03' W. Felt

at China Lake and

Haiwee (IV-V), Inde-

pendence, Bakersfield,

and apparently by a

few persons in Los

Angeles.

Supplement: Times of P for additional shocks at China Lake

Oct. 4 07 19 42

Supplement: Times of P for additional shocks at Woody

Oct. 1 23 25 37, 23 44 32

Oct. 2 03 33 56, 03 39 47, 06 12 19, 06 14 28, 06 49 04,

07 20 37, 08 08 18, 08 16 04, 08 17 32, 13 02 50,

21 39 28, 22 47 11

Oct. 3 12 53 11 (pP 12 53 43), 17 43 28

Oct. 5 17 29 59, 19 40 05, 22 48 30, 23 10 53

Oct. 6 01 36 02 (pP 01 36 37), 04 40 46? (i 04 40 51),

06 05 53, 06 59 28, 09 16 43, 11 15 39, 17 02 58,

19 51 35

Oct. 7 16 07 18

Oct. 8 03 05 24, 22 03 55 (i 22 04 08)

Oct. 9 00 11 03 (pP 00 11 15), 00 21 24 (pP 00 21 51, 11 17 19

Oct. 10 01 57 10, 03 56 05 (e 03 58 05) Violet M. Taylor  
Seismological Assist

KEW  
OBSERVATORY  
30 OCT 1961  
RICHMOND,  
SURREY.

SEISMOLOGICAL LABORATORY  
220 North San Rafael Ave.  
Pasadena 2, California  
October 24, 1961



PROVISIONAL READINGS AT PASADENA  
(and auxiliary stations as noted)

Additional:

Oct. 4 iP 02 21 39.6  
iS 46.3  
Mt. Wilson:  
iP 02 21 39.5  
Riverside:  
iP 02 21 37.8  
iS 42.9  
Palomar:  
iP 02 21 48.7  
iS 22 01.3  
Felt at Santa Ana, Fullerton, and adjacent towns in Orange County  
11 iP 10 56 02  
11 iP 16 15 46  
11 iP 22 13 58

Continuation:

Oct. 19 IP 08 09 55  
19 eP 08 43 46  
19 iP2 11 31 34  
Dilatation  
ipP 11 32 09  
ePP\ 34 36  
iS\ 41 40  
8 esS 42 52  
esSS 47.5  
eR 54.0  
Distance 72<sup>0</sup>  
Depth 150 km  
Magnitude 6 $\frac{1}{4}$

Oct. 20 County, the largest causing slight local damage:  
iP 19 19 21.3, M=3.9  
iP 19 50 00.3 4.6  
iP 20 07 23.8 4.2  
iP 21 42 50.2 4.4  
iP 22 35 45.3 4.2  
First motions all dilatations from southeast. Many smaller shocks, accompanying these and continuing on Oct. 21.  
21 iP 17 46 50  
22 iP 10 03 02  
eSKS 13 36  
ePS 14.6  
eSSS 22.7  
iG 26.0  
iR 29.6  
Distance 90<sup>0</sup>  
22 iP 13 15 28  
iS 21 28  
eG 25.1  
iR 26.6  
Distance 41<sup>0</sup>  
22 iP 14 52 03  
22 iP 15 20 48

19 iP 20 07 46  
20 The following group of shocks felt generally in southeastern Los Angeles County and adjacent Orange

Supplement: Times of P for additional shocks at Woody

Oct. 7	14 30 45
Oct. 11	00 42 00, 04 54 31, 19 59 11 (i 19 59 23), 20 02 50
Oct. 12	05 58 39, 07 48 56, 14 02 26, 18 29 25
Oct. 13	(PKKP) 05 28 02
Oct. 14	12 42 40, 13 11 08, 16 26 35
Oct. 15	17 30 20
Oct. 16	02 15 42, 09 14 52, 18 30 57
Oct. 17	01 01 27, 10 04 10, 11 15 31

Violet M. Taylor  
Seismological Assistant



30 OCT 1961

RICHMOND,  
SURREY.

SEISMOLOGICAL LABORATORY  
220 North San Rafael Ave.  
Pasadena 2, California  
October 26, 1961

PROVISIONAL READINGS AT PASADENA  
(and auxiliary stations as noted)



Additional:

Oct. 19 China Lake:  
iP! 05 09 48.8  
Haiwee:  
iP! 05 09 50.2  
iS! 54.3  
Isabella:  
iP! 05 09 55.1  
iS! 10 03.0

Oct. 23 mu sec  
MH 10 20  
MZ 7 20  
23 iP 17 23 24  
24 iP 07 36 26  
i 56  
24 iP 07 48 18  
i 26

Continuation:

Oct. 23 eP! 00 27 19  
ePP! 28 26  
eSKS 34 12  
ePS 38.4  
ePPS 39.7  
iSS 44.8  
iSSS 47.9  
iG 58.0  
eR 01 04.2  
2 Distance 120°?  
Magnitude 6½  
Interpretation doubtful

25 iP 09 04 18  
Compression  
i 09 04 34  
eS 12 17  
eSS 16.0  
eG 19.0  
eR 22.8  
Distance 60°  
25 iP 14 32 10  
i 26  
eS 41 56  
ePS 42 36  
eG 51.6  
eR 55.7  
Distance 80°

mu sec  
PPZ 0.1 1½  
MH 14 20  
MZ 7 20

Oct. 23 ~~eP 14 54 06~~  
eP! 58 09  
ePP 28  
eSKS 15 04 44  
ePS 08.0  
ePPS 09.0  
eSS 13.0  
eSSS 17.7  
iG 24.0  
eR 27.8  
2 Distance 110°  
Magnitude 6½

Supplement: Times of P for additional shocks at China Lake  
Correction: Sept. 19 09 31 32, 09 32 32  
should read 09 51 32, 09 52 32

Continuation of Supplement:  
Oct. 18 04 07 47, 07 42 46  
Oct. 19 11 08 12, 11 20 37

Supplement: Times of P for additional shocks at Woody  
Oct. 14 05 02 24

Violet M. Taylor  
Seismological Assistant

B ✓

SEISMOLOGICAL LABORATORY  
220 North San Rafael Ave.  
Pasadena 2, California

October 31, 1961

PROVISIONAL READINGS AT PASADENA  
(and auxiliary stations as noted)



Additional:

Oct. 18	iP	07 14 15
18	eP	13 26 08
19	eP	03 57 14
19	Woody:	
	iP!	05 10 00
	Tinemaha:	
	iP!	05 10 07
	iS	22
	Revised epicenter:	
		35° 53'N, 117° 48'W
20	eP	08 25 07
20	Times of iP	
	PV: Palos Verdes	
	MW: Mt. Wilson	
	R: Riverside	
	Pr: Palomar	
	MW	19 19 22
	R	23
	Pr	30
20	PV	19 49 56.0
	MW	50 00.9
	R	02.1
	Pr	08.7
20	PV	20 07 21
	MW	25
	R	26
	Pr	32
20	PV	21 42 46
	MW	52
	R	52
	Pr	59
20	PV	22 35 40
	MW	44
	R	46
	Pr	53
	Epicenters near	
		33° 58'N, 118° 02'W
✓ 21	i(P')	11 54 38

Continuation:

Oct. 26	iP <sup>2</sup>	00 51 44
	ePP <sup>1</sup>	55 37
12	eSKS	01 02 16
	eS	03 05
	ePS	04.4
	iSS	09.4
	eSSS	13.2
	iG	17.6
	iR	21.7
2	Distance	95 <sup>0</sup>
	Magnitude	6 $\frac{1}{4}$
		mu sec
	PZ	0.1 1
	PH	0.1 1
	PPZ	0.3 3
	MH	6 20
	MZ	7 20
26	iP'	15 46 20
	ePP	48 39
	eSKP	49 41
	eSKKS	55 54
	eSKKP	59.0
10	eSS	16 07.3
	eG	25.9
	eR	30.2
2	Distance	133 <sup>0</sup>
	Magnitude	6
		mu sec
	MH	4 20
	MZ	3 20
26	iP	17 27 18
	e	31 39
28	iP	22 57 10
	ePS	23 09 00
	ePPS	09.4
	eG	20.0
	eR	23.6
	Distance	90 <sup>0</sup>

-6 NOV 1961  
 RICHMOND P.  
 SURKIN

Supplement: Times of P for additional shocks at China Lake

Oct. 18	01 51 07
Oct. 19	03 39 46, 19 55 25

Supplement: Times of P for additional shocks at Woody

Oct. 19	18 21 09, 19 45 23 (pP? 19 47 07)
Oct. 20	05 48 43, 08 00 52
Oct. 21	22 29 54, 22 43 33, 23 09 56, 23 26 12
Oct. 22	18 53 10
Oct. 23	01 35 53 (pP 01 36 17), 08 02 02 (pP 08 02 19), 10 42 25, 19 32 05, 20 44 17
Oct. 24	00 29 37

Violet M. Taylor  
Seismological Assistant

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SEISMOLOGICAL LABORATORY  
220 North San Rafael Ave.  
Pasadena 2, California  
November 7, 1961

PROVISIONAL READINGS AT PASADENA  
(and auxiliary stations as noted)



Additional:

Oct. 25	eP	05 55 15
	e	32
26	eP	08 28 36
27	iP	02 50 04

Oct. 31	iP	01 52 45
	i	54
	eS	59 48
	eG	02 05.6
	eR	07.2

Continuation:

Oct. 29	iP <sup>2</sup>	09 16 12
	Dilatation from north	
1	iG	09 19 16
	iR	19.5
2	iLg	20.8
	Distance	17 <sup>0</sup>
	Magnitude	5 <sup>3</sup> / <sub>4</sub>
		mu sec
	PZ	1 <sup>1</sup> / <sub>2</sub> 1 <sup>1</sup> / <sub>2</sub>
	PH	2 2
	MH	35 20
	MZ	21 20
29	iP	14 51 11
	eG	54.5
	eR	56.2
	Distance	19 <sup>0</sup>
30	eP	01 47 30
	eG	49.7
	eR	50.4
	Distance	14 <sup>0</sup>
30	iP	02 19 08
	eG	21.5
	Distance	14 <sup>0</sup>
30	iP	21 27 56
	ipP	28 10
	eS	38 03
	ePS	39.1
	eSS	43.3
	eG	48.9
	eR	50.9
	Distance	80 <sup>0</sup>
30	iP	17 47 16
	ipP	48 08

Nov. 1	iP	10 53 17
4	eP	18 23 22
	iPcP	24 29
	eS	30 03
	eG	33.6
	eR	35.2
	Distance	46 <sup>0</sup>
5	iP	10 38 07
5	iP	10 47 33
	Compression	
	ipP	10 48 09
6	eP	05 40 59
	ePS	52.7
	eSS	57.8
	eSSS	06 00.8
	eG	03.7
	eR	07.9
	Distance	90 <sup>0</sup>
7.	eP	12 27 25
	eS	37 43
	eG	48.7
	eR	52.0
	Distance	82 <sup>0</sup>

**KEW OBSERVATORY**  
 12 NOV 1961  
 RICHMOND, SURREY.

Supplement: Times of P for additional shocks at China Lake

Oct. 24	18 23 23, 20 24 24
Oct. 25	13 02 12, 14 10 56, 22 50 05
Oct. 26	11 24 08, 15 54 46, 19 47 48 (i 19 51 09), 22 04 56
Oct. 28	01 46 06, 06 13 15, 06 59 14, 15 01 47, 20 03 11, 21 39 53
Oct. 31	20 34 13
Nov. 1	00 10 06, 00 43 05, 13 24 42, 20 21 45

Supplement: Times of P for additional shocks at Woody

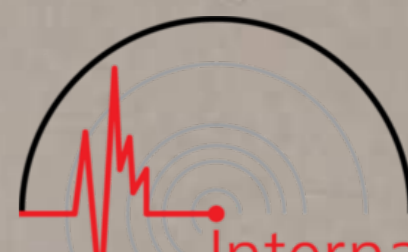
Oct. 29	19 32 12, 20 00 58, 23 31 36
Oct. 30	07 29 06, 16 04 46, 22 48 20
Oct. 31	03 41 50, 03 58 22, 08 51 11?, 08 52 18

Violet M. Taylor  
Seismological Assistant

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SEISMOLOGICAL LABORATORY  
220 North San Rafael Ave.  
Pasadena 2, California  
November 16, 1961

PROVISIONAL READINGS AT PASADENA  
(and auxiliary stations as noted)



International  
Seismological  
Centre

Additional:

Nov.	2	iP	05	33	35
	2	iP	23	43	05
	4	iP	14	42	44

Continuation:

Nov.	9	eP	01	22	36
	9	iP2	04	31	11

Dilatation

iPcP	04	31	26
ipP			43
isP			57
eS	40	35	
ePS	41.3		
eSS	45.3		
eG	50.1		
eR	51.7		

Distance 77°

Depth 125 km

Magnitude 6 1/4

	mu	sec
PZ	0.3	1
PH	0.15	1
SH	3/4	5

9	iP	23	17	58
---	----	----	----	----

10	iP	02	18	12
----	----	----	----	----

	ipP			37
--	-----	--	--	----

10	iP	18	11	50
----	----	----	----	----

Compression

iPcP	18	12	07
------	----	----	----

ipP		13	48
-----	--	----	----

isP		14	52
-----	--	----	----

Depth 530 km

10	i(P)	19	27	17
----	------	----	----	----

10	iP?	22	04	25
----	-----	----	----	----

11	eP?	12	33	29
----	-----	----	----	----

	i(P)			37
--	------	--	--	----

	eL			51.5
--	----	--	--	------

12	iP	14	23	18
----	----	----	----	----

	ipP			30
--	-----	--	--	----

Nov.	14	iP2	04	50	25
		i			33
	10	i			41
		iS		56	58
		iSS	05	00.4	
		iG		01.9	
		iR		02.9	

2- Distance 47°

Depth 60 km

Magnitude 6 1/4

	mu	sec
PZ	0.2	1
PH	0.1	1
SH	7	9
MH	20	30
MZ	12	30

14	iP	10	14	23
----	----	----	----	----

14	eP	12	51	59
----	----	----	----	----

14	iP	17	33	18
----	----	----	----	----

14	eP	17	36	45
----	----	----	----	----

	i			37 12
--	---	--	--	-------

15	iP!	05	39	14.4
----	-----	----	----	------

	iS			29.4
--	----	--	--	------

Distance 130 km

Dilatation from northwest

Magnitude 4.9

Felt (III) by persons in Pasadena and vicinity; intensity III-IV in Los Angeles. Also felt at Oxnard, Ventura, Santa Barbara. Reported not felt at Santa Ana. Intensity higher at Bakersfield, and apparently highest reported (V-VI?) at Frazier Park, west of Fort Tejon.

Supplement: Times of P for additional shocks at Woody

Nov.	1	06	07	14,	07	29	58		
Nov.	2	10	49	34,	23	13	11		
Nov.	3	21	17	39,	22	14	47,	22	28 34
Nov.	4	02	21	28,	21	32	22,	23	48 59
Nov.	5	00	18	38,	00	32	32 (pP 00 32 47),	00	35 29 (pP 00 35 45),
		00	57	50 (i 00 58 05),	03	03	38,	03	52 41 (pP 03 52 57),
		13	17	14,	19	38	04 (i 19 38 24)		
Nov.	6	05	23	40 (pP 05 23 56),	07	23	58,	13	47 06
Nov.	7	00	51	18,	01	29	57,	06	02 51, 10 52 51, 10 55 10,
		21	32	33,	23	49	21		
Nov.	8	05	00	39					

Violet M. Taylor  
Seismological Assistant

SEISMOLOGICAL LABORATORY  
220 North San Rafael Ave.  
Pasadena 2, California  
November 21, 1961

PROVISIONAL READINGS AT PASADENA  
(and auxiliary stations as noted)



Continuation:

Nov. 15	iP <sub>2</sub>	07 28 34	Nov. 19	eP	08 12 55
	Compression			iS	19 06
	i	07 28 45		eG	22.4
	iPcP	54		eR	24.3
14	ipPcP	29 10	19	Distance 45°	
	iS	37 54		iP'	23 40 15
	isS	38 13		eS	48 24
	iSS	42.6		ePS	50.2
	eSSS	46.2		eSS	56.1
	iG	47.6		eSSS	24 00.4
2-	iR	50.1		eG	07.1
	eP'P'	56 15		eR	11.8
	Distance 72°			Distance 110°	
	Depth 60 km			Interpretation	
	Magnitude 6 $\frac{1}{4}$ - 6 $\frac{1}{2}$			doubtful	
	mu	sec	20	iP	06 50 05
	PZ	0.4 1	20	iP'	08 53 44.0
	PH	0.1 1		Magnitude 4	
	SH	6 9		Felt in Los Angeles	
	MH	50 30		and Orange Counties.	
	MZ	45 30		Some broken glass-	
17	iP	08 24 49	20	ware near Long Beach.	
	Compression			eP	11 57 10
17	iP	12 37 19		eSKS	12 07 42
	Dilatation			eS	08 00
18	iP	03 18 59		iPS	09.1
	iS	19 15		eSS	13.3
	North and somewhat			eSSS	17.2
	east from Pasadena.			eG	20.6
	Magnitude 4			iR	25.2
	Felt at China Lake;			Distance 90°	
	IV-V at Randsburg,			mu	sec
	California.			MH	2 20
18	iP	10 44 41	20	MZ	5 20
18	iP	11 29 14		iP	18 08 54
	ipP	29		iS	17 36
	iS	40 36		eSS	21.2
	eR	54.4		eG	24.6
				iR	28.5
				Distance 66°	

Supplement: Times of P for additional shocks at China Lake  
Nov. 8 18 46 43, 20 50 47, 22 49 13

Supplement: Times of P for additional shocks at Woody

Nov. 9 12 53 18, 16 09 44 (i 16 09 57), 18 58 52

Nov. 10 22 49 06

Nov. 11 00 41 51, 01 04 22, 17 50 02, 20 02 54

Nov. 12 02 34 34, 06 27 28, 18 23 51, 21 50 51 (i 21 51 19)

Nov. 13 04 31 02, 10 15 37, 19 48 45, 19 58 09

Nov. 14 10 01 29, 10 39 06, 13 14 59, 13 22 28,  
22 37 51 (i 22 38 05)

Nov. 15 04 45 20, 05 36 27, 13 53 02

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27 NOV 1961  
RICHMOND,  
VIRGINIA

SEISMOLOGICAL LABORATORY  
 220 North San Rafael Ave.  
 Pasadena 2, California  
 December 1, 1961

PROVISIONAL READINGS AT PASADENA  
 (and auxiliary stations as noted)



Additional:

Nov. 15	Fort Tejon:			
	iP	05 38	58.2	
	Woody:			
	iP	05 39	09.0	
	Santa Barbara:			
	iP	05 39	10.0	
	China Lake:			
	iP	05 39	20.8	
	Haiwee:			
	iP	05 39	21.7	
	Tinemaha:			
	iP	05 39	32.5	
	Epicenter about			
	34° 57'N	119° 02'W		
19	eP	00 43	33	
19	iP	10 25	54	

Nov. 27	iP?	06	58
	Heavy	20	34
	micro-	33.0	
	seisms	36.9	
	eP <sup>1</sup>	<del>17</del> 25	14
	eP <sup>1</sup>	29	14
	ePP <sup>1</sup>		47
	eSKS	35	54
	iS	37	28
	ePS	39.0	
	e	42.1	
	eSS	44.9	
	iSSS	49.2	
	i	51.4	
	iG	56.6	
	iR	18	00.5
	Distance	105°	
	Magnitude	6 $\frac{1}{4}$ - 6 $\frac{1}{2}$	

Continuation:

Nov. 22	iP	12 36	10
22	eP?	13 09	51
	i		58
	e	11	42
23	iP	16 54	00
25	iP	14 24	20
	i(pP)		36
	eR		52.9
27	iP?	00 59	05
	i	01 01	35

Dec.	eP	07 44	17
	iPcP		54
	eS		52 34
	eG		59.2
	eR	08	02.4
	Distance	62°	

Supplement: Times of P for additional shocks at China Lake

Nov. 17	19 15 24 (i 19 16 25)
Nov. 18	10 36 05, 18 27 07, 22 23 28
Nov. 19	03 53 55, 21 00 57
Nov. 20	03 16 51, 04 16 52, 04 44 21, 12 34 47, 13 17 02, 19 04 34, 23 19 22
Nov. 22	02 58 26, 11 19 35

Supplement: Times of P for additional shocks at Isabella

Nov. 13	04 50 23
Nov. 15	19 38 57
Nov. 16	08 28 12, 08 33 23, 16 16 31, 17 19 30
Nov. 17	14 56 38

Supplement: Times of P for additional shocks at Woody

Nov. 15	18 05 12
Nov. 18	11 59 59, 14 40 43, 15 46 43
Nov. 19	13 16 29, 22 43 52 (pP 22 44 18)
Nov. 20	14 55 03
Nov. 22	10 49 03, 11 17 14, 12 42 32, 20 32 42 (i 20 31 15), 20 51 37
Nov. 23	06 07 40 (i 06 08 07), 10 43 20, 10 45 24, 14 52 24, 15 38 29, 17 10 57, 18 46 42
Nov. 24	11 12 10, 11 16 07, 11 24 50, 20 54 02, 22 47 15
Nov. 25	02 25 13 (i 02 25 53), 12 30 15, 20 31 39
Nov. 26	14 13 06

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Pasadena 2, California  
December 7, 1961

PROVISIONAL READINGS AT PASADENA  
(and auxiliary stations as noted)



Additional:

Nov. 18	China Lake:			
	iP	03 18	43.7	
	Isabella:			
	iP	03 18	47.4	
	Haiwee:			
	iP	03 18	50.5	
	Woody:			
	iP	03 18	52.8	
	Riverside:			
	iP	03 19	01.2	
	Tinemaha:			
	iP	03 19	04.7	
	Epicenter roughly			
	35° 20' N 117° 40' W			
20	Riverside:			
	iP	08 53	45.4	
	iS		53.7	
	Palomar:			
	iP	08 53	53.1	
	San Nicolas:			
	iP	08 53	58.7	
	Epicenter near			
	33° 37' N 117° 59' W			
29	eP	04 55	26	
29	eP	22 08	38	
	i		53	
30	iP	18 40	14	
Continuation:				
Dec. 1	iP	21 26	06	
	i		27 02	
	i		27	
	i		31 10	
	e		36.9	
	e(G)		52.3	
3	iP	01 05	44	
	i		06 12	
	eS		10 10	
	eL		12.4	
	Distance 26°			
3	iP	12 27	30	
3	iP	16 26	58	
	i		27 13	
	eSKS		37 22	
	ePS		38.6	

Dec. 3	eSS	16	43.4	
	eSSS		47.4	
	eG		49.9	
	eR		53.2	
	Distance 89°			
3	iP	20 06	23	
	Compression			
4	iP	05 46	30	
4	eP'	13 04	30	
	ePP		06 10	
	eSKS		11.9	
	ePS		12.4	
	eSSS		24.9	
	eG		29.4	
	eR		33.1	
	Distance 104°			
	Interpretation			
	doubtful			
5	iP'	13 14	56	
	i		15 47	
	ePP		18 22	
	e		21 43	
	eSKKS		25 17	
	i		26 41	
	iSS		37.8	
	eG		51.9	
	iR		58.1	
	Distance 142°			
	Magnitude 6 1/4 - 6 1/2			
	mu		sec	
	PPZ	0.3	2	
	MH	7	20	
	MZ	3	20	
5	iP	14 27	40	
6	iP	06 07	36	
6	iP <sub>2</sub>	13 47	52	
	i		48 40	
11	iS		57 54	
	iPS		59.2	
	eSS	14	02.9	
	eSSS		06.4	
	eG		08.3	
	iR		11.9	
2	Distance 80°			
	mu		sec	
	PZ	0.2	1	
	PH	0.05	1	
	MH	5	20	
	MZ	7	20	

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Supplement: Times of P for additional shocks at China Lake

Nov. 27	22 11 47
Nov. 28	00 48 24, 08 04 13
Nov. 29	00 07 54, 05 49 42
Nov. 30	12 31 24, 14 27 02

Supplement: Times of P for additional shocks at Woody

Nov. 22	10 26 19
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220 North San Rafael Ave.  
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December 14, 1961

PROVISIONAL READINGS AT PASADENA  
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International  
Seismological  
Centre

Correction:

Nov. 27 iP? 06 10 58  
should read:  
iP 06 09 58

Additional:

Nov. 27 eP 17 39 58  
e 44 13

Continuation:

Dec. (6) iP2 16 49 59

Compression

ipP 16 50 09

isP 15

i 51 46

e 53 40

iS\ 58 28

eScS 17 00 13

iSS 02.6

iG 05.8

iR 07.9

2 eP'P' 19 03

Distance 62°

Magnitude 6 - 6 1/4

mu sec

PZ 0.1 1

PH 0.1 1

SH 3 7

MH 14 20

MZ 10 20

7 eP 00 30 31

i 37

8 eP 08 02 51

e 03 25

(9) iP 02 21 56

i 22 06

5 iS 27.2

eL 29.2

Distance 37°

mu sec

MH 5 20

Dec 9 iP 04 09 25

i 35

iS 18 00

eL 30.1

(9) iP2 11 30 51

i! 56

Compression

i 11 31 04

iS\ 41.6

9 iPS 42 41

iSS 46 51

i 47 25

iL! 53.9

Distance 87°

Magnitude 6 3/4

mu sec

PZ 4 4

PH 3 1/2 5

SH 8 20

9 iP 20 00 58

i 01 40

i 03 29

iS? 10 26

10 eP 00 02 52

i 03 06

12 iP 17 35 33

e 36 48

12 iP 22 18 47

eG 22.2

eR 23.4

Distance 19°

12 iP 23 17 33

Compression

i 23 17 50

Supplement: Times of P for additional shocks at Woody

Nov. 30 17 46 33, 18 02 26 (i 18 02 40)  
Dec. 1 11 45 17, 15 16 05  
Dec. 2 07 24 26, 12 53 29, 18 57 50, 19 28 17 (pP 19 28 43,  
sP 19 28 59)  
Dec. 3 04 09 52, 07 01 52, 08 53 41 (pP 08 54 17), 09 17 32,  
11 23 05, 14 39 13  
Dec. 4 01 04 46, 03 49 19, 08 29 49, 08 33 58, 10 28 03,  
12 56 33, 14 38 01 (pP 14 38 24), 21 04 00

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Seismological Assistant

M E R R Y C H R I S T M A S

and

H A P P Y N E W Y E A R T O A L L !!!

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27 DEC 1961

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 PROVISIONAL READINGS AT PASADENA  
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Additional:

Dec. 10	GNOME nuclear test	Dec. 17	iP	04 32 59
	Barrett:	17	iP	21 42 25
	iP		i	43 49
	19 02 38.6	(20)	iP! 2	13 34 07
	China Lake:		Dilatation from	
	eP		southeast	
	19 02 57.0		ipP	13 34 39
	Isabella	17	isP	52
	iP		iPcP	35 20
	19 02 04.5		iPPi	36 09
	Riverside:		i	37 02
	iP		iScP	39 06
	19 02 47.6		i	40 25
	Woody:		iS\	41 08
	eP		iScS	43 54
	19 03 09.2		i	45 00

Continuation:

Dec. 14	iP	01 43 59	i	40 25
	eG	47.1	iS\	41 08
	eR	47.9	iScS	43 54
	Distance 18°		i	45 00
(14)	iP <sup>1</sup>	07 24 20	iSS	45.6
	ePP <sup>2</sup>	28 14	iR	49.5
10	eSKS	34 53	2 eP <sup>1</sup> P <sup>1</sup>	14 05 56
	ePS	37.4	Distance 52°	
	eSS	42.9	Depth 150 km?	
	eG	51.8	Magnitude 6 <sup>3</sup> / <sub>4</sub>	
	eR	55.5		
2	Distance 100°			
	mu	sec	PZ	mu sec
	PZ	0.1 1	PH	1 1
	PPZ	0.05 1 <sup>1</sup> / <sub>2</sub>	PPZ	2 2
	PPH	0.3 3	SH	3 3
	MH	3 20	MH	14 20
	MZ	2 20	MZ	10 20
			20 eP	14 11 34
			i	12 30

Supplement: Times of P for additional shocks at China Lake

Dec. 6	02 27 42, 04 28 09, 04 56 39, 15 30 22
Dec. 7	00 37 41, 06 02 27, 09 42 13, 16 41 27

Supplement: Times of P for additional shocks at Isabella

Dec. 14	04 52 05, 05 53 54, 06 42 32, 08 46 27, 08 53 38,
	19 00 18, 23 37 50
Dec. 15	12 49 42

Supplement: Times of P for additional shocks at Woody

Dec. 8	03 58 33, 08 31 33, 14 54 56, 16 24 44, 18 49 28
Dec. 9	04 38 54, 08 11 25, 11 48 25, 14 22 03, 20 40 16,
	21 15 20, 21 28 09, 21 53 54, 22 52 15, 23 30 42
Dec. 10	05 04 52, 09 30 37, 09 57 50, 17 02 22, 17 14 45
Dec. 11	05 21 03, 18 17 41, 20 56 32
Dec. 12	00 02 51, 00 12 57, 11 19 04, 11 28 09
Dec. 13	03 15 08, 05 19 09

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