Chile 1964

1964 Jan-Dec

Mixed Stations Microseismic bulletin...

Santiago (Santa Lucia) Antofagasta, Concepcion, Copiapo, Base O'Higgins, Gabriel Gonzalez Videla, Pelletque, Sombrero.

Ref: 1203

y Sismología

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AL READINGS AT SANTIAGO
ANTA LUCIA)

.9
8

.5
.5

eP 21:41:37
eS 42:18
Distance 390 km.

4 eP 10:08:49.5
eS 10:14
Distance 830 km

5 iP 07:12:32.4
iS 13:46.4
Distance 720 km

eP 07:57:23.6
eS 52
Distance 270 km

eL 10:54:46

eP 15:01:49
eS 02:(00)
Small

eS 16:47:45
e 52:59
eL 58:--

iP 23:57:20
iS 00:06:20
eG 10:20
eR 14:--
Dilatation?
Distance 75°
Depth about 300 km
SH = 13.3 u, 12 sec.
MH = 17.4 u, 32 sec.
Magnitude about 6½

7 e(S) 05:41:08
eL 52:44

e 12:41:48
e(L) 45:54

Jan. 7 1964

eP 12:45:31
iS 47:08
Distance 960 km
Superimposed to precedent shock

8 eP 01:31:05
e(S) 20
Small

eP 08:45:02.2
eS 44
Distance 100 km
Small

9 eL 10:19:28

iP 11:49:09.9
iS 26
Distance 240 km.

eP 18:51:29
eSKS 19:01:40
eSS 13:59
eG 32:36
eR 39:08
Compression
Distance about 128°
PZ = 4.6 u, 8 sec
MH = 8.1 u, 26 sec.

10 e(P) 05:10:54
e 34:26
e(R) 06:01:10
two shocks?

e(P) 14:14:11.5
eS 15:18

eP 21:22:34.5
eS 42.5
Distance 60 km. Small

11 eP 12:33:47
e(S) 24:06
Small

eP 21:25:37.5
eS 27:28
e(R) 58
Distance 10°

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## PROVISIONAL READINGS AT SANTIAGO
## SANTA LUCIA

Jan. 12 L 06:55:--
1964

eP 10:11:21.5
e(S) 49

13 eP 03:30:51.5
eS 31:(00)

eP 04:02:14.5
eS 03:48
Distance 920 km

14 iP 03:06:48
iS 07:03.2
Distance 130 km.
Felt

e(P) 16:00:21
eL 15:32

15 e(P) 15:03:31
eS 48.5
Small

Jan. 15 eP 16:10:48.5
1964 e(S) 11:33

eP 21:09:50.4
iS 10;03.5
Distance 110 km
Small

e(PKP) 21:55:48
Compression
Distant shock.
Further phases unreadable.

P. Welkner
Seismologist

## PROVISCNIONAL READINGS AT CONCEPCION

Jan. 4 iP 10:08:00
1964 iS 16.5
Distance 130 km.

eP 21:16:30

5 eP 05:21:21.5
eS 26
Distance 35 km

iP 07:11:43
iS 54
Distance 70 km
Felt

Jan. 6 iP 22:50:12
1964 iS 22.5
Distance 80 km

7 eP 12:44:40.5
iS 45:10
Distance 250 km.

A. Trautmann
Seimmologist

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PROVISIONAL READINGS AT ANTOFAGASTA

Jan. 1 1964

e(PKP) 17:49:42
eSS 18:07:24
eG 22:36
eR 31:--
Interpretation doubtful

e(P) 15:58:00.8
Compression

eP 18:58:35.1
eS 59:02.9
Distance 240 km.

eP 21:56:14.7
eS 48
Distance 310 km

2

eP 03:54:44.4
i 44.7
eS 55:20.4
i 21.7
Compression
Distance 320 km.

iP 05:14:22.8
iS 58.4
Compression from S.E
Distance 310 km

eP 06:33:44.1
iS 34:13
Compression from N.E
Distance 270 km.

eP 19:05:36.8
Small local

3

eP 01:44:21.0
eS 45:00.7
Compression
Distance 370 km.

eP 01:50:39.4
e(S) 16.6
Compression from N.E

e(P) 05:21:39
iP 43.5
i(S) 22:41.8

e(P) 07:34:13
Compression

Jan. 3 1964

eP 07:35:28.6
eS 48.4
Distance 160 km.

eP 13:28:50.2
i 51.8
iS 29:28
Distance 360 km

eP 18:08:58.6
eS 09:34.5
Distance 320 km

eP 20:31:50.1
eS 32:12
Compression
Distance 200 km.

4

eP 04:28:31
iS 59.7
Distance 270 km.

eP 09:36:34.5
eS 37:10.6
Distance 320 km

eP 17:45:25.7
eS 46:02.6
Distance 330 km

eP 18:12:46.6
i(S) 13:28

5

iP 01:23:27.4
iS 45.9
Dilatation
Distance 150 km.

e(P) 07:18:08
i 21.7

eP 11:47:06.4
eS 43.2
Distance 330 km.

eP 16:47:54.4
eS 48:35.1
Dilatation
Distance 360 km.

iS 16:49:27
eSS 55:18
eG 17:02:--
i 50
eR 05:54

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PROVISIONAL READINGS AT ANTOFAGASTA

Jan. 5 1964

| | |
|---|---|
| iP | 18:37:34.3 |
| e | 40:31 |
| Compression | |

| | |
|---|---|
| eP | 17:50:28 |
| eS | 51:06 |
| Distance 360 km. | |

| | |
|---|---|
| eP | 20:09:54.7 |
| eS | 10:39.4 |
| Distance 400 km. | |

| | |
|---|---|
| eP | 20:26:26.1 |
| i | 27.9 |
| iS | 45 |
| Distance 170 km. | |

| | |
|---|---|
| iP | 23:57:58.1 |
| i | 58:05 |
| ePP | 00:00:47 |
| eS | 07:41 |
| eSS | 12:19 |
| eSSS | 15:48 |
| eG | 18:08 |
| eR | 21:20 |
| Compression | |
| Distance 77° | |

6

| | |
|---|---|
| eP | 02:18:57.8 |
| eS | 19:29 |
| Distance 290 km. | |

| | |
|---|---|
| iP | 16:13:29.6 |
| iS | 14:08 |
| Compression from S.E | |
| Distance 365 km | |

7

| | |
|---|---|
| ePKP | 00:04:40 |
| ePP | 07:12 |
| ePKS | 08:13 |
| eSPP | 19:10 |
| eSS | 25:34 |
| e(SSS) | 30:15 |
| eG | 40:-- |
| eR | 48:06 |
| Distance 136° | |

| | |
|---|---|
| eP | 07:00:33.4 |
| eS | 01:12 |
| Distance 370 km | |

| | |
|---|---|
| iP | 07:43:03.6 |
| eS | 44 |
| Distance 385 km | |

Jan. 7 1964

| | |
|---|---|
| iP | 08:49:15.8 |
| iS | 31.6 |
| Compression from S.E | |
| Distance 130 km | |

| | |
|---|---|
| eP | 12:35:53.0 |
| eS | 36:32.9 |
| Distance 360 km. | |

8

| | |
|---|---|
| eP | 05:02:44.9 |
| eS | 03:24 |
| Distance 370 km. | |

| | |
|---|---|
| e(P) | 07:47:22.5 |
| i(S) | 59 |

| | |
|---|---|
| eP | 12:21:17 |
| iS | 37 |
| Distance 180 km | |

9

| | |
|---|---|
| iP | 03:09:54°8 |
| iS | 10:33.2 |
| Distance 340 km. | |

| | |
|---|---|
| eP | 07:26:34 |
| iS | 49.5 |
| Distance 135 km | |

| | |
|---|---|
| eP | 11:36:11.4 |
| eS | 47.8 |
| Distance 320 km. | |

| | |
|---|---|
| e(P) | 11:49:55 |
| Small local | |

| | |
|---|---|
| e(PKP) | 18:51:31 |
| ePP | 54:27 |
| eSKP | 50 |
| eSKKS | 19:01:04 |
| eSPP | 06:36 |
| eSS | 12:33 |
| e(SSS) | 17:12 |
| eG | 28:-- |
| eR | 36:-- |
| Compression ? | |
| Distance about 140° | |

10

| | |
|---|---|
| iP | 03:15:48.8 |
| iS | 16:36.8 |
| Compression from S.E | |
| Distance 430 km. | |

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PROVISIONAL READINGS AT ANTOFAGASTA

Jan. 1964

10
ePKP 05:10:34
e(SS) 32:18
eR 59:05
Compression?

eP 05:38:33.1
i(S) 39:41

eP 11:05:16.4
i 17.1
Small local

e(PKP) 22:12:10

11
iP 02:37:41.8
iS 48.1
Compression from N.E
Distance 50 km.

iP 04:48:48.0
iS 54.9
Dilatation
Distance 60 km.

eP 11:05:26.4
eS 40.6
Compression
Distance 110 km.

eP 14:56:22.2
e(S) 42.5

iP 21:09:18.5
iS 25.5
Compression
Distance 60 km

eP 21:27:49
e(S) 30:42
eR 32:--

12
eR 06:52:40
No records from Jan. 12 at 18:00 GMT to Jan. 13 at 13:00

13
eP 13:40:20.5
eS 41:09
Distance 465 km.

Jan. 1964

13
eS 17:40:14
eR 42:14

eP 19:43:06.5
i 07.1
iS 23
Distance 145 km

14
eR 05:00:12

eP 05:24:21.7
eS 25:01.5
Compression
Distance 350 km

eP 08:58:22.4
Small local
Dilatation

iP 13:33:38.2
iS 34:18
Compression
Distance 380 km

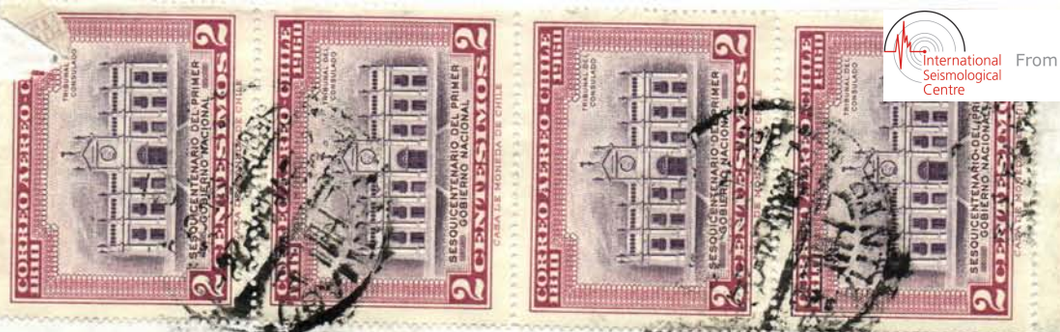
iP 14:35:45.2
iS 55.9
Dilatation
Distance 90 km

ePKP 16:00:17
eSS 16:36
eG 31:--
eR 38:--
Compression from S.W

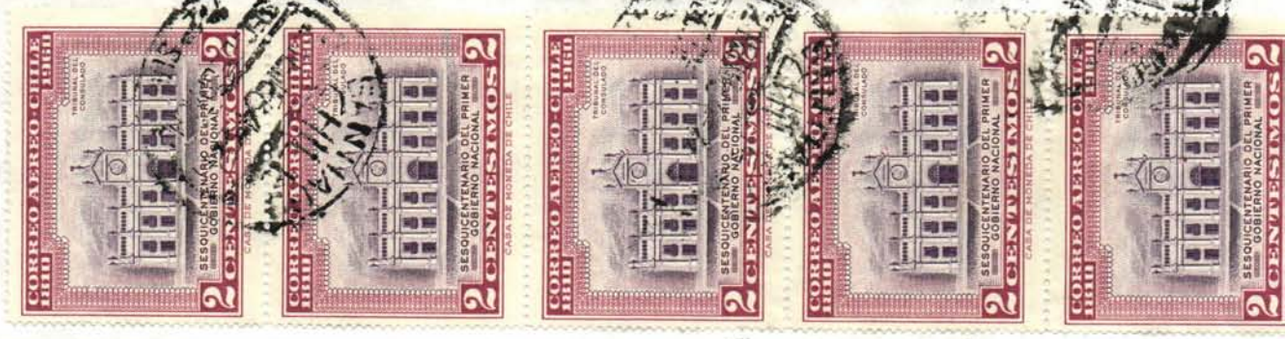
15
eP 12:20:13.6
i(S) 51.0

iPKP 21:55:50
Compression

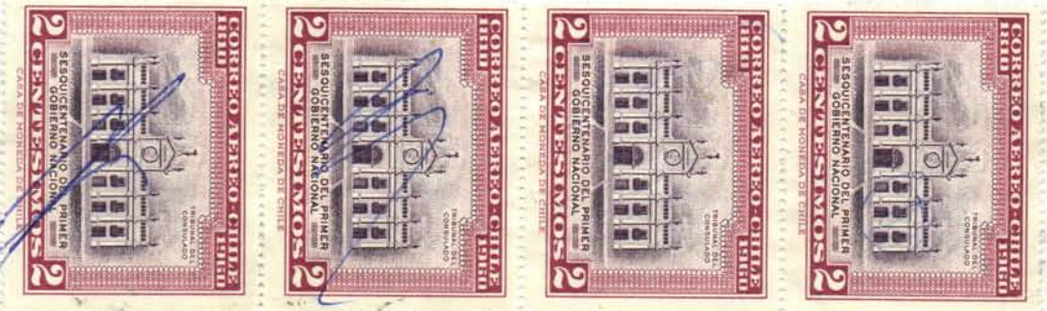
J. Frez
Seismologist






025





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# PROVISIONAL READINGS AT SANTIAGO
## (SANTA LUCIA)

Jan. 16 1964

| | | |
|---|---|---|
| | eP | 00:48:40 |
| | eS | 49:20 |
| | Deep focus? | |
| | Small | |
| | eP | 03:21:45.8 |
| | e(S) | 22:02 |
| | iP | 04:39:34 |
| | iS | 46 |
| | Distance 100 km. | |
| | iP | 14:38:26 |
| | ipP | 33 |
| | iS | 39:06 |
| | Distance about 350 km | |
| | Depth over 100 km. | |
| | Magnitude about 5-5½ | |
| 17 | e(S) | 03:20:02 |
| | e(SS) | 26:57 |
| | e(R) | 40:56 |
| | eP | 05:18:43 |
| | eS | 19:20 |
| | Distance 350 km. | |
| | eP | 07:29:47.3 |
| | e(S) | 30:18 |
| | Small | |
| | iP | 13:31:11.8 |
| | e(S) | 50 |
| | Small | |
| | eP | 20:30:23.5 |
| | eS | 50 |
| | Distance 245 km. | |
| | eP | 23:13:11.5 |
| | Small | |
| 18 | eP | 02:35:45.8 |
| | eS | 36:08 |
| | Distance 200 km | |
| | eP | 06:43:32.5 |
| | eS | 44:12 |
| | Distance 375 km | |
| | eP | 07:10:31.5 |
| | e(S) | 11:16 |
| | Small | |

Jan. 18 1964

| | | |
|---|---|---|
| | eL | 07:20:52 |
| | iP | 11:47:33.5 |
| | iS | 56 |
| | Distance 200 km. | |
| | e(PKP) | 12:24:42 |
| | e! | 34:26 |
| | e(L) | 50:16 |
| | e | 56:06 |
| | Two shocks? | |
| | Interpretation doubtful | |
| | eP | 12:31:22 |
| | e(S) | 40 |
| | Superimposed to precedent shock | |
| | e(P) | 20:08:56 |
| | eS | 10:24 |
| 19 | eP | 02:28:30.5 |
| | e(S) | 29:46 |
| | eR | 30:24 |
| | e(S) | 07:03:16 |
| | eL | 06:24 |
| | e(P) | 11:43:24 |
| | e(S) | 44:46 |
| | iP | 20:00:34.4 |
| | e(S) | 55 |
| | Small | |
| | eP | 22:21:07.5 |
| | e(S) | 30 |
| | Small | |
| 20 | Heavy microseisms on LP records | |
| | eP | 14:28:57.5 |
| | iP | 14:34:27 |
| | eS | 35:13.7 |
| | Distance 450 km. | |
| | e(P) | 17:22:12 |
| | e | 26:20 |
| | eG | 33:-- |
| | eR | 35:26 |
| | MH=11.2 u, 22 sec | |

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## PROVISIONAL READINGS AT SANTIAGO (SANTA LUCIA)

Jan. 28 1964
eP 14:54:05.5
eS 21.5
Small
Distance 140 km.

eP 21:08:32.8
eS 42.2
Distance 65 km.

eP 23:28:02.5
eS 32
Distance 270 km.

29
eP 06:34:47.6
eS 59
Distance 100 km.
Small

eP 11:07:22
eS 42
Distance 180 km.
Small

eP 13:17:19.5
eS 32.5
Distance 110 km.
Small

30
No records from LP seismographes

e(S) 23:10:10.8
Small local

Jan. 31 1964
eP 11:04:08.5
eS 45.0
Distance 310 km.

eP 20:01:20.5
eS 40
Distance 180 km

eP 23:00:53
eS 01:21
Distance 260 km

Feb. 1 1964
e(P) 05:16:39.5
eS 47.3

eP 09:27:22.3
eS 55
Distance 210 km.

eP 11:58:37.6
eS 58
Distance 180 km.

2
eP 05:46:02.5
eS 12.5
Distance 80 km
Small local

eP 13:09:12
eS 23
Distance 90 km.
Small local

P. Welkner
Seismologist

## PROVISIONAL READINGS AT CONCEPCION

Jan. 27 1964
iP 02:57:53.5
iS 58:05
Distance 90 km.
Felt

## PROVISIONAL READINGS AT ANTARCTICA

Jan. 5. 1964
eL 16:50:30
eP 23:54:26
e(PP) 56:20
e(S) 24:00:42
eL 04:--

7
eP 12:37:26
eL 42:--

9
eL 20:14:11

17
eL 13:17:40

Jan. 19 1964
e 06:54:14
eL 58:--

26
iP 09:18:08.4
e(PP) 29
e 19:05
e(S) 25:08

P. Vera
Seismologist

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PROVISIONAL READINGS AT ANTOFAGASTA

Jan. 29 1964
iP 18:30:13.2
eS 31:01
Dilatation
Distance 460 km

30
iP 02:45:10.5
iS 48.2
Compression
Distance 340 km.

eP 05:00:10.6
iS 25.7
Distance 120 km

iP 05:58:50
iS 59:10
Distance 180 km.

iP 06:39:36.7
iS 40:14.2
Compression from N.E
Distance 330 km.

Jan. 30 1964
iP 09:52:56.2
eS 53:36
Compression from N.E
Distance 380 km.

30
iP 09:57:17.9
iS 58.0
Compression
Distance 360 km.

J. Frez
Seismologist

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# PROVISIONAL READINGS AT ANTOFAGASTA

Jan. 15 1964

eP 16:11:21.7
Small local

ePKP 21:55:49
ePP 59:34
ePPP 22:03:02
e(SKKS) 06:17
eSKSP 09:53
eSS 19:--
eG 38:--
eR 45:31
Compression
Distance 151°

iP 23:12:16.2
i(S) 41
Dilatation

16

iP 04:59:18.1
iS 55
Compression
Distance 350 km.

eP 08:11:00.4
eS 39
Compression from N.E
Distance 365 km

eP 14:39:14
i(S) 40:53

eP 15:03:56
i(S) 04:24.5
i 28.5

eP 16:14:27.6
eS 15:28
Compression
Distance 590 km

eP 17:24:00.9
eS 43
Dilatation from S.E
Distance 400 km

eP 21:33:19.1
eS 34:04.3
Dilatation from N.E
Distance 410 km.

17

ePS 03:22:20
eSPP 23:17
eSS 28:30
eG 38:40
eR 43:37

Jan.17 1964

eP 04:21:20.5
eS 41.6
Distance 170 km.

iP 06:52:45.9
i(S) 53:12.0

iP 13:04:18.0
iS 23.9
Compression
Distance 50 km

eP 13:52:34
e(S) 53:37

iP 16:00:07.9
iS 47.8
Compression from S.E
Distance 360 km.

eP 17:45:22.8
Small local

iP 21:44:54.2
iS 45:34.6
Compression from S.E
Distance 360 km

18

eP 00:11:39.9
i 40.9
Small local

eP 01:06:56.9
Small local

eP 03:00:03.4
eS 42.9
Compression
Distance 350 km.

eP 03:59:07.4
i 07.9
e(S) 27.2
Dilatation

iP 05:02:21.1
iS 57.7
Compression from S.E
Distance 320 km.

eP 06:54:26.1
eS 55:30
Distance 620 km.

e 11:51:30

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# PROVISIONAL READINGS AT ANTOFAGASTA

Jan. 18 1964

| | |
|---|---|
| iPKP | 12:24:48 |
| iPP | 29:51 |
| eSS | 51:07 |
| eG | 13:15:22 |
| iR | 22:50 |

| | |
|---|---|
| eP | 12:49:28 |
| eS | 50:00.8 |

Distance 310 km.

| | |
|---|---|
| iPKP | 22:44:00.8 |

19

| | |
|---|---|
| eS | 07:05:12 |
| eSS | 08:36 |
| eR | 13:-- |

Interpretation doubtful

| | |
|---|---|
| eP | 14:51:39.7 |
| eS | 52:18.7 |

Distance 350 km

| | |
|---|---|
| eP | 21:40:30 |
| eS | 54.5 |

Distance 225 km.

20

| | |
|---|---|
| eP | 00:23:42 |
| eS | 24:06 |

Distance 220 km.

| | |
|---|---|
| eP | 01:20:59.8 |
| eS | 21:37 |

Distance 350 km.

| | |
|---|---|
| eP | 04:15:24.3 |
| eS | 16:00.5 |

Distance 320 km.

| | |
|---|---|
| eP | 06:20:40.4 |
| iS | 03:22.9 |

Distance 380 km.

| | |
|---|---|
| eP | 11:44:29.4 |
| eS | 45:12 |

Distance 400 km

| | |
|---|---|
| eP | 17:22:34 |
| ePP | 27:02 |
| e(SKS) | 33:58 |
| ePS or SP | 35(53) |
| eSPP | 37:06 |
| eSS | 41:53 |
| eG | 52:-- |
| eR | 57:40 |

Dilatation? Distance 107°
Lectures difficulted by microseisms

Jan 21 1964

| | |
|---|---|
| iP | 05:24:49.7 |
| iS | 25:11 |

Compression from S.W
Distance 190 km.

| | |
|---|---|
| eP | 10:28:39 |
| e(S) | 29:15 |

| | |
|---|---|
| eP | 19:41:35 |
| iS | 56.9 |

Dilatation from N.E ?
Distance 200 km

22

| | |
|---|---|
| eP | 02:20:25 |
| e(R) | 24:34 |

| | |
|---|---|
| $iPKP_1$ | 16:19:41.2 |
| $ePKP_2$ | 20:31 |
| e | 34:23 |
| eSS | 43:36 |
| eR | 17:17:55 |

Interpretation doubtful

| | |
|---|---|
| iP | 17:55:54.3 |
| iS | 56:09.6 |

Dilatation from N.E
Distance 120 km.

| | |
|---|---|
| i(PKP) | 18:57:52.6 |

Compression

23

| | |
|---|---|
| e(PP) | 00:19:10 |
| eSP | 28:42 |
| eSS | 35:-- |
| eG | 46:-- |
| eR | 52:19 |

| | |
|---|---|
| e | 06:14:08 |
| eR | 24:24 |

| | |
|---|---|
| eP | 07:18:38.5 |
| iS | 19:17.5 |

Dilatation
Distance 350 km.

| | |
|---|---|
| eP | 15:24:47.3 |
| eS | 25:24.8 |

Distance 330 km.

24

| | |
|---|---|
| eP | 06:45:44.9 |

Small local

| | |
|---|---|
| eP | 07:17:09.4 |
| eS | 42.3 |

Distance 290 km.

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PROVISIONAL READINGS AT ANTOFAGASTA

Jan 24 1964

eP 20:32:54
iS 33:09.4
Distance 130 km.

iP 22:26:13.2
iS 49.3
Compression
Distance 320 km.

25

eR 04:00:39

iP 07:16:21.6
eS 17:07
Dilatation
Distance 430 km.

iP 16:51:48.1
iS 54.5
Compression
Distance 50 km.

iP 20;13:59.7
iS 14:14.4
Compression
Distance 120 km.

eP 22:44:06.0
eS 45
Compression
Distance 370 km.

eP 23:27:12.0
eS 48.7
Distance 320 km

e(P) 00:38:05
eS 39:30

26

eP 09:11:17
iS 12:32
Dilatation from N.W
Distance about 750 km.

iP 15:38:35.6
eS 39:02
Dilatation
Distance 240 km.

eP 18:27:52.2
eS 28:40.5
Distance 440 km.

Jan 27 1964

eP 01:21:02
iS 29:53
eSS 33:32
eG 35:36
eR 38:30
Distance 57°

eP 16:16:28
eS 17:06.6
Distance 365 km.

eP 18:42:10
Small local

28

eP 04:10:20
eS 11:37
Distance about 750 km.

eR 06:45:42

eP 18:10:40
iS 11:11.0
i 13.6
Distance 290 km.

29

iP 02:30:43.1
iS 31:13
Dilatation
Distance 280 km.

29

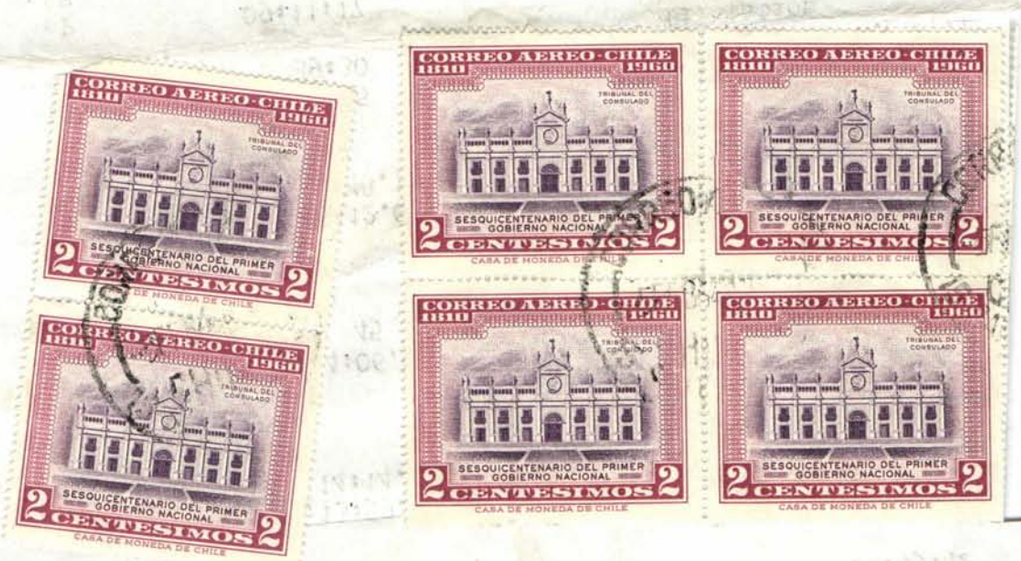
eP 07:24:38.2
eS 25:27.8
Dilatation?
Distance450 km.

iP 08:36:11.0
iS 17.7
Dilatation
Distance 50 km.

eP 08:56:30
Small local

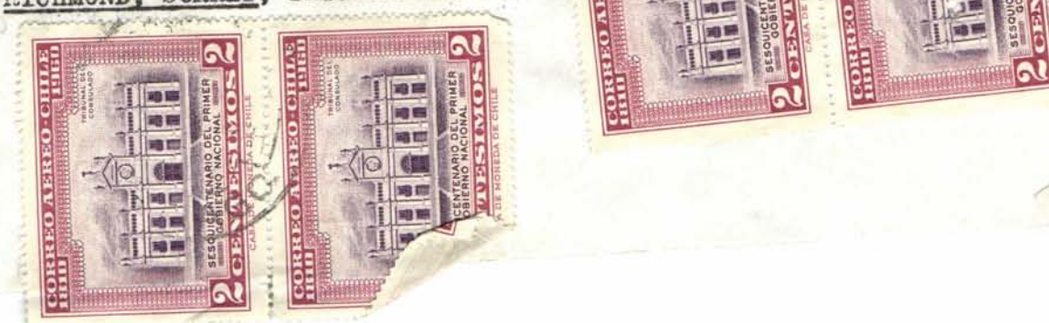
eP 10:28:35.3
iS 54
Compression
Distance 170 km

eP 11:06:54.3
eS 07:38.3
Distance 400 km





INTERNATIONAL SEISMOLOGICAL SUMMARY
KEW OBSERVATORY
RICHMOND, SURREY, INGLATERRA.



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# PROVISIONAL READINGS AT SANTIAGO
(Santa Lucía)

Feb. 1964

3 eP 10:49:07
eS 31.2
Distance 220 km

eP 11:26:02.2
eS 38
Distance 340 km

4 eP 17:42:31.5
eS 42
Distance 90 km
Small local

5 eP 01:23:56.5
eS 24:12.8
Distance 140 km

eP 02:42:33
eS 48
Distance 130 km

eG 11:40:52
eR 44:58

e(P) 13:11:34
eS 12:19

6 iPP 13:27:02
eSKS 32:44
e 34:02
ePS 36:40
eSS 43:56
iR 14:01:31
Distance 122°

7 iP 02:42:37.8
Distance 180 km approxim.

iP 10:19:20.4
iS 31.5
Distance 90 km

iP 23:50:48.7
iS 51:28.4
Distance 350 km

8 NOTHING

9 iP 01:09:08.9

e(P) 06:43:(00)
On minute mark.
Distance about 500 km?

eP 09:22:05.5
iS 16.5
Distance 90 km

Feb. 1964

9 iP 16:22:26.5
i! 32.6
e 50
i(S) 23:13.5
Distance 430 km
Same as at 06:43 ?

i(P) 20:57:26.6
i 37.5

10 iP 19:20:45.0
iS 21:15.5
Distance 270 km

i(P) 21:34:08.5

11 iP 00:25:58.1
iS 26:11.5
Distance 110 km

eP 03:12:55
e(S) 13:34
Distance 340 km

iP 06:15:00.5
iS 11
Distance 90 km
Felt at Santiago

12 iP 02:20:29.2
iS 40.1
Distance 90 km

e(P) 05:49:01
i 06.5
eS 37
e 50
Distance 330 km

iP 06:00:34.6
iS 48.5
Distance 120 km

iP 16:10:10.0
iS 17.7
Distance 70 km

iP 19:34:54.2
Distance 50 km approx.

eR 21:32:10

13 e(R) 10:48:20
iP 11:26:15
eiS 32:36
Distance 45°

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# PROVISIONAL READINGS AT SANTIAGO
(Santa Lucía)

Feb. 14 iP 13:27:41
1964 Small

i(P) 17:07:36
e 28:30
eR 33:52
eG 36:20
Doubtful!

eP 21:48:35

15 iPn 07:37:13
eS* 29
eSn 31
Distance 115 km
(Doubtful)
Small

iPg 08:34:15.5
iSn 36
iSg 42.5
Distance 230 km
Small

eP 18:39:58
Small

16 iP 02:53:18
Small

iP 06:24:58
eS 25:06
Distance 60 km
Small

eP 16:20:40
Small

17 iP 09:28:45.5
eS 29:40
Distance 530 km

eP 18:00:42
i(S) 48
Small

18 eP 05:30:13.4
e(S) 31:03.7

eP 12:30:49.3
iS 31:33.2
Distance 420 km

eP 15:02:40.0
eS 03:40.0

19 iP 10:05:(00)
(On the time mark)

Feb. 19 eP 12:16:13
1964

iP 18:55:45
eS 56:11
Distance 240 km
Small

20 eP 09:37:56
eS 38:36
Distance 360 km
Small

23 iP 15:54:16.5

iP 20:01:31.5
Small

24 iP 05:06:58.5
iS 07:50
Distance 500 km

eP 23:18:55
eS 19:18
Distance 210 km

25 iP 03:23:30.5
iS 40.5
Distance 80 km

iP 04:47:30

iP 12:32:35
e 38
e 44
e 47
eS 57.5

26 iP 03:50:44
eS 53
Distance 80 km

iP 04:06:46

iP 06:25:48.5
iS 59.0
Distance 80 km

iP 07:42:23.5
eS 33.5
Distance 80 km

27 iP 07:06:05
i(S) 14
e 17.5

eP 15:04:06
Small

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## PROVISIONAL READINGS AT SANTIAGO
(Santa Lucía)

Feb. 27 1964
eP 23:56:25
e(S) 57:46

28
e(P) 00:46:22
e 37
i(S) 52
Small

eP 02:49:27.5
iS 42.4
Distance 130 km
Small

eP 09:23:47.2
iS 57.3
Distance 80 km
Small

i(P) 14:17:59.7
Small

eP 15:51:23
Local?

iP 17:58:30.3
Small local

iP 18:10:17.5
eS 27.5
Distance 80 km
Small

29
iP 07:53:18.5

iP 09:02:34
iS 49
Distance 130 km

Feb. 29 1964
eP 14:56:29
e 38
i(S) 45.5

Mar. 1 1964
eP 09:30:41.2
eS 52.8
Distance 95 km
Small

iP 10:56:16.9
eS 36.6
Distance 180 km

2
iP 04:52:27
eS 47.5
Distance 185 km
Small

eL 12:16:20

eP 13:42:23
iS 47.7
Distance 225 km

iP 13:59:47
iS 14:00:04
Distance 150 km
FELT

eP 14:05:23
e(S) 06:03.5

eL 19:55:54

e(L) 20:14:12
Same shock?

P. Welkner
Seismologist

## PROVISIONAL READINGS AT CONCEPCION

Feb. 1964
3
iP 11:46:56
iS 47:00
Distance 30 km

5
eP 13:11:11.5
iS 35
Distance 200 km

18
eP 13:11:26.5
iS 46.5
Distance 160 km

19
eP 12:16:05
eS 24
Distance 150 km

Feb. 20 1964
eP 08:51:57

e(P) 10:03:53

eP 10:08:51

22
eP 00:39:33.5

24
iP 05:06:36.5
iS 45.5
Distance 70 km, FELT

26
eP 21:34:(38)

29
iP 07:42:30.5
iS 54
Distance 200 km

A. Sickinger
Seismologist

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# PROVISIONAL READINGS AT ANTOFAGASTA

Jan. 30 iP 17:55:50.9
1964 eS 56:27
Distance 320 km

iP 18:38:53.8
iS 39:02.4
Distance 50 km

iP 01:42:43.8
iS 43:05.9
Distance 180 km

31 iP 19:11:14.6
iS 12:03.2
Distance 450 km

eP 19:18:58.4
iS 19:26.1
Distance 255 km

Feb. 1 iP 04:17:08.0
1964 eS 46.3
Distance 350 km

iP 07:20:57.3
(S) 21:02.8
Compression from NE
Distance about 25 km

eP 11:52:17.0
eS 56:14
eR 58:45
Distance 22,5°

2 eP 04:34:39.0
iS 35:04.5
Distance 230 km

iP 06:33:31.7
iS 34:02.5
Distance 270 km

eP 06:38:17
e(S) 43:24
(Q) 44:32
R 47.0
Distance about 30°

iP 10:57:47.1
(S) 58:38

eP 12:07:14.5
iS 36.9
Distance 190 km

5 iP 00:29:30.2
eS 30:11.9
Dilatation from SE
Distance 380 km

Feb. 5 iP 02:38:20.6
1964 S 43
Distance 200 km

ePKP 11:49:58(LP)
iPKP 50:04.0(SP)
iPKS 53:19.3(SP)
ePP 53:46
eSKS 58:23
eSKSP 12:03:36
eSSP 06:01
eSS 12:57
e(PSS) 13:59
eSSS 18:24
Q 32.5
R 37.5
Distance 152½°

eP 13:12:16.4
eS 42.5
Distance 220 km

iP 16:13:22.8
eS 14:02.4
Dilatation from SE
Distance 360 km

iP 20:34:41.0
iS 48.0
Compression from NW, distance 45km

iP 21:13:41.8
iS 57
Felt

iP 22:24:08.7
eS 43.7
Dilatation
Distance 310 km

iP 23:15:36.6
eS 16:03.8
Distance 235 km

6 eP 07:24:19.3
eS 35
Distance 115 km

iP 09:33:30.2
eS 44.9
Distance 110 km

iP 13:21:46
ePP 26:10
eSKS 32:20
eS 33:38
ePS 34:31
e 35:04
e 35:28
eSS 41:31
Distance 105°

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# PROVISIONAL READINGS AT ANTOFAGASTA

Feb. 1964

6 i(PKP)14:20:26
Superimposed to precedent shock.

i(PKP)15:39:11

iP 18:34:44.3
iS 35:24.4
Compression
Distance 370 km

7 iP 11:54:33.6
iS 55:34.0
Dilatation
Distance 580 km

iP 13:18:36.0
i(S) 44.5

iP 15:22:40.5
iS 23:01.8
Distance 180 km

8 iP 21:22:12.7
iS 18.8
Compression from NW
Distance 30 km

iP 21:38:01.7
iS 29.8
Dilatation from SE
Distance 245 km

9 iP 01:40:42.0
iS 54.8
Compression from NE
Distance 90 km

iP 02:56:56.9
iS 57:23.4
Distance 230 km

iP 05:39:37.4
iS 40:12.7
Compression
Distance 315 km

iP 13:08:36.6
iS 08:54.0
Compression from NE
Distance 140 km

iP 18:14:16.4
iS 38.3
Distance 185 km

iP 21:35:40.6
iS 36:28.3
Compression from SE
Distance 450 km

Feb. 1964

10 iP 13:58:36.5
iS 59:00.1
Distance 195 km

iP 15:28:44.4
iS 50.2
Compression from NE
Distance 35 km

eP 20:40:48.6
eS 41:05.6
Distance 130 km

11 iP 05:12:48.0
iS 13:16.5
Compression from SE
Distance 245 km

iP 06:47:23.3
(S) 47.2

12 eP 10:41:26.9
iS 51.4
Distance 200 km

iP 11:48:32.2
iS 58.2
Dilatation
Distance 220 km

eP 17:11:58.5
iS 12:43.6
Distance 420 km

iP 21:39:39.9
iS 40:15.0
Compression
Distance 315 km

13 eP 09:03:43
i 51.5
iS 04:43.0
Distance 580 km

iP 10:04:05.2
iS 33.2
Compression from SE
Distance 240 km

e(P) 10:42.9
S 49:19
R 51.4
iP 11:15:05
iS 30.6
Compression
Distance 210 km

eP 11:25:02.7
iP 06.6
e 27:36
(S) 28.2

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# PROVISIONAL READINGS AT ANTOFAGASTA

Feb. 13 1964

iP 14:49:05.9
iS 22
Distance 120 km

iP 16:42:33.0
iS 43:19.0
Dilatation
Distance 430 km

14 iP 00:20:14.6
iS 57.9
Dilatation from SW
Distance 400 km

iP 09:27:22.1
iS 28:01.7
Distance 360 km

iP 09:32:09.2
iS 33.8
Distance 200 km

eP 10:31:17.8
i 45.1
iS 32:00.3
Distance 390 km

eP 14:35:27.5
iP 28.9
(S) 49

ePKP 16:48:51.6

iP 16:37:39.9
iS 38:17.9
Compression from NE
Distance 340 km

ePKP 16:48:51.6
ePP 51.0
ePKS 52.3
eSKS 55.7
eSKKS 57.9
ePS 17:01.5
eSPP 03.1
eSS 08.9
eSSS 12.8
eQ 23.2
eR 30.8
Distance 131°

iP 17:42:53.3
eS 43:32.8
Dilatation
Distance 360 km

iP 21:25:47.0
iS 26:02.3
Compression from NE
Distance 120 km

Feb. 15 1964

iP 02:34:12.6
eS 53.0
Compression from NE
Distance 365 km

iP 19:44:43.2
eS 45:27.2
Dilatation
Distance 410 km

eP 20:11:40.8
eS 12:11.6
Distance 275 km

16 iP 01:48:13.4
S 40
Compression from SE
Distance 220 km

iP 10:12:29.8
eS 13:10.7
Distance 365 km

iP 11:25:52.4
iS 26:08.0
Distance 120 km

eP 11:44:19.6
eS 43.5
Distance 190 km

iP 13:47:13.7
eS 36.0
Dilatation from NE
Distance 190 km

iP 20:27:55.8
eS 35.5
Distance 360 km

eP 21:58:25.8
(S) 59:06

17 eP 09:29:27.8
(S) 31:10

iP 14:03:51.3
iS 04:28.5
Compression from SE
Distance 330 km

eP 09:29:27.8
e(L) 30:50
e 31:21

iP 14:03:51.3
iS 04:28.5
Compression from SE
Distance 330 km

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PROVISIONAL READINGS AT ANTOFAGASTA

Feb. 17 iP 18:19:41.1
1964 iS 56.1
Distance 115 km

18 eP 02:48:24.4
i(P) 24.8
iS 35.5
Distance 80 km

eP 14:18:45.7
eS 19:20.2
Distance 305 km

eP 15:50:40.5
eS 51:15.4
Distance 310 km

eP 16:34:12.5
eS 20.4
Distance 50 km

iP 16:56:21.6
iS 57:04.5
Distance 395 km

19 e(P) 01:47:35
iS 48:04.6

eP 06:30:46.9
eS 31:57
Distance 670 km

eP 06:56:17.2
Local

iP 10:55:19.1
iS 30.9
Distance 85 km

eP 12:31:28
L 32:50
e 33:23
Aftershock from Feb.17
at 09:29?

eP 13:06:43
eP 51.8
eS 07:43.7
Distance 490 km

eP 13:26:26.0
i(S) 27:18.7

iP 15:26:29.0
e(S) 44
e 55
Compression from NW
Felt

Feb. 19 iP 15:53:14.1
1964 eS 54:20.9
Distance 640 km

iP 23:39:15.5
iS 40:02.6
Distance 440 km

21 eP 15:12:01.5
eS 30.6
Distance 250 km

eP 15:42:00.0
e 39
e(S) 57.8

iP 19:02:08.5
S 30.3
Compression from NE
Distance 190 km

eP 19:30:18.9
iS 39.0
Distance 110 km

eP 23:41:53.0
e 43:20.6
e(S) 29

iP 01:31:15.7
iS 26.7
Distance 80 km

eP 02:15:45.7
e(S) 16:13.5

eP 08:05:09.3
iS 28.6
Distance 165 km

eP 12:02:55.0
(S) 03:30.3

eP 12:41:28.1
iS 46.5
Distance 150 km

iP 16:55:43.9
iS 48.7
Distance 25 km

eP 16:59:49.6
iS 17:00:10.2
Distance 170 km

iP 19:09:38.2
iS 10:13.9
Distance 320 km

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PROVISIONAL READINGS AT ANTOFAGASTA

Feb. 21 iP 20:48:28.3
1964 iS 49:02.5
Distance 305 km

iP 23:38:27.5
iS 39:07.2
Distance 355 km

22 iP 00:37:33.4
iS 38:07.3
Distance 295 km

iP 02:12:28.1
S 53
Distance 305 km

eP 07:30:26.7
iS 31:03.7
Distance 330 km

iP 11:15:51.9
iS 16:11.9
Distance 160 km

eP 19:07:44.4
iS 08:03.5
Distance 155 km

23 eP 04:27:03.7
iS 38:17.8
Distance 720 km

iP 05:09:32.9
S 40
Distance 40 km

iP 17:15:29.7
eS 44.4
Distance 115 km

iP 18:14:52.1
iS 15:38.2
Distance 430 km

iP 21:10:19.3
iS 57.4
Distance 360 km

iP 21:43:51.3
iS 57.6
Distance 35 km

eP 22:44:21.2
iS 58.1
Distance 320 km

iP 01:14:09.5
iS 50.7
Distance 310 km

eP 04:31:42.9
iS 32:19.1
Distance 320 km

Feb. 24 eP 07:09:43.2
1964 eS 10:23.3
Distance 360 km

iP 14:15:06.6
S 21
Distance 120 km

iP 17:43:24.4
iS 41.9
Distance 140 km

eP 19:12:36.5
(S) 13:48

iP 21:18:08.2
(S) 21.4
iS 25.5

iP 21:52:50.9
eS 53:40
Distance 460 km

eP 23:57:24.1
iS 50.6
Distance 230 km

25 iP 00:53:57.9
eS 54:45.2
Distance 450 km

iP 01:14:41.3
iS 15:06.0
Compression from NE
Distance 210 km

eP 06:44:21.7
eS 45:00.3
Distance 345 km

eP 08:17:32.5
eS 55
Distance 190 km

iP 09:46:25.6
i(P) 31
iS 47:47

eP 14:15:05.0
iS 23.1
Distance 140 km

iP 16:38:50.9
iS 39:28.4
Compression
Distance 335 km

iP 22:40:53.0
iS 59.7
Compression from NE
Distance 30 km

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# PROVISIONAL READINGS AT ANTOFAGASTA

Feb. 26 1964

iP 06:32:39.3
iS 33:18.3
Compression
Distance 350 km

iP 07:21:23.9
iS 22:06.4
Distance 380 km

iP 08:46:54.2
iS 47:19.0
Compression from SE
Distance 210 km

iP 16:50:56.4
(S) 51:09.5

27 iP 13:14:54.2
iS 15:28.0

28 eP 07:06:47.2
iS 07:23.9
Dilatation?

eP 13:11:02.6
iS 08.5

e(P) 17:09:57.3
iS 10:11.4

e(P) 18:07:49.1
iS 08:59.1

eP 19:51:43.3
(S) 52:27.0
Compression?

e(P) 20:52:53.1
iS 53:30.8

29 eP 01:49:33.5
iS 53.4
Dilatation?

eP 07:24:05.1
iS 40.6
Dilatation

eP 20:33:05
iS 34.9

Mar. 1 1964

ePKP 00:09:17
i 19.7
eSS 32.4
eG 51
eR 59
Interpretation doubtful!

Mar. 1 1964

eP 01:10:22.1
iS 36.3
Dilatation
Distance 110 km

iP 02:06:40.5
iS 07:07.9
Compression from NE
Distance 230 km

eP 09:01:16.2
iS 59.0
Distance 380 km

eP 12:24:46.3
eS 57.9
Distance 90 km

iP 13:22:51.1
eS 23:28
Compression

eP 20:25:(32)
i(S) 26:28.4

2 eP 08:27:26.8
eS 28:03.0
Distance 320 km

eP 11:04:(20)
Small Local

e 12:11:23
eR 16:32

iP 14:22:37.1
iS 43.6
Dilatation
Distance 50 km

iP 20:59:43.8
iS 49.1
Compression
Distance 40 km

3 iP 07:04:30.4
iS 53.3
Compression from SE
Distance 190 km

eP 10:01:02.8
eS 39.6
Distance 320 km

Germán Saa, S.J.
Seismologist

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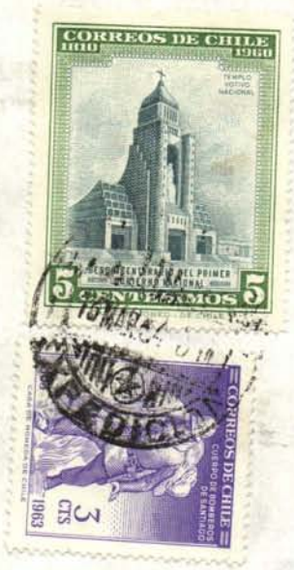


INTERNATIONAL SEISMOLOGICAL SUMMARY
KEW OBSERVATORY
RICHMOND, SURREY, INGLATERRA.

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# PROVISIONAL READINGS AT SANTIAGO
(Santa Lucía)

Mar 1964

3 Note: No records from N-S L.P. component during March on account of galvanometer failure

4 iP 05:16:31.7
eS 46
Distance 120 Km
small

eP 08:58:33.3
iS 43.2
Distance 80 Km
Small

5 iP 01:21:53
e(S) 22:19

eP 01:27:32
eS 57.5
Distance 240 Km

eP 03:43:51.5
eS 44:42
Distance 490 Km

eL 06:44:--

eP 10:28:17.5
eS 48
Distance 280 Km

eP 13:43:12.5
eS 36.5
Distance 220 Km

eP 19:42:47.5
eS 58
Distance 80 Km
Small

6 eL 19:54:--

eP 21:09:09.7
eS 11:57
eR 12:48
Distance about 15½°

7 eP 09:55:44.5
eS 56:07.5
Distance 210 Km

eL 10:48:--

8 eP 01:42:29.8
eS 49.5
Distance 180 Km
Small

Mar. 1964

8 eP 20:14:44.5
eS 51
Distance 45 Km
Small

eP 21:24:24
eS 51.5
Distance 260 Km

eP 22:44:01.8
eS 13.2
Distance 100 Km
Small

eP 22:56:07
eS 30
Distance 210 Km

9 e 13:20:58

iP 18:08:07
eS 28.6
Distance 200 Km

iP 23:16:58
eS 17:11
Distance 110 Km

10 eP 07:11:48.5
eS 12:16.5
Distance 260 Km

e(P) 10:17:02
eS 11.5

11 iP 05:52:09
eS 53:32
Distance 830 Km

e 07:17:55.5

12 eP 00:13:48.5
eS 57.6
Distance 70 Km
Local

e(P) 05:25:(00)
eS 18
On minute mark

eP 10:21:25.6
eS 35
Distance 70 Km
Small local

13 eL 04:46:--

eP 08:04:29.6
Small

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# PROVISIONAL READINGS AT SANTIAGO

(Santa Lucía)

Mar. 1964

13 eP 12:58:39.5
e(S) 59:38

14 eP 04:16:44.2
eS 18:--

eP 11:36:51

e(P) 16:47:23

eL 17:06:--

eL 19:15:--

iP 21:38:31.4

15 eP 02:08:11.2
eS 09:20.5
Distance 670 Km

iP 16:44:23.4
iS 50
Distance 450 Km

eP 22:43:29
e(PPP) 48:56
iS 54:26
e 58:48
eSSS 23:06:40
eL 11:--
Compression
Distance about 93°
Magnitude about $6\frac{1}{2}$-7

16 eP 07:16:53.5
eS 17:04.5
Distance 90 Km

eP 09:04:06
iS 05:12.9
Distance 650 Km

eP 19:14:31
e(S) 56.2

eP 18:34:52.5
eS 35:26.5
Distance 320 Km

17 eL 05:21:32

18 e(S) 04:56:09
Small local

e(S) 04:59:09.6
Small local

Mar. 1964

18 iP 18:58:22
iS 59:08.8
D stance 550 Km

19 iP 17:56:20.5
eS 42.5
Distance 210 Km

eP 21:57:10
e(SKS) 22:08:11
e(S) 09:36
eL 25:44

eP 22:15:56.5
eS 16:44
Distance 460 Km

eP 22:48:16
iS 57
Distance 390 Km

20 eP 05:43:50.6
eS 44:19.6
Distance 270 Km

eP 07:42:32
eS 51.5
Distance 180 Km

eP 15:20:23

21 eP 03:42:56.5
eS 43:12
Distance 140 Km
Dilatation

e(PKP) 04:03:42
i! 57.5
e 15:20

eP 06:44:13:
eS 32
Distance 170 Km

iP 07:02:42.3
iS 56
Compression ?
Distance 120 Km
Felt

e(P) 13:04:11
eS 30.6

22 e? 08:35:41
iP 50
eS 36:25
Compresssion
Distance 330 Km

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## PROVISIONAL READINGS AT SANTIAGO

(Santa Lucía)

April 1964

5 eP 11:36:50.5
iS 37:26
Distance 340 Km
Small

eP 12:02:21
eS 55.5
Distance 330 Km
Small

eP 14:15:19.3
iS 44.4
Distance 230 Km
Small

Abril 1964

5 eP 20:46:25
e(S) 45
Small

eP 21:31:59.5
eS 32:22
Distance 205 Km
Small

P. Welkner
Seismologist

## PROVISIONAL READINGS AT CONCEPCION

Mar. 1964

7 eP 21:58:44.5

11 eP 05:51:15.6
eS 52:08
Distance 480 Km

eP 09:43:39.5

13 eP 12:58:(00)
eS 16.8

15 eP 02:07:15
eS 28.5
Distance 110 Km
Felt

20 eP 09:14:59
iS 15:02
Distance 25 Km

Mar. 1964

21 eP 07:03:14
eS 51
Distance 325 Km
Felt

22 eP 08:35:24.5
eS 42
Distance 140 Km
Felt

eP 09:07:14.5

23 eP 15:06:11.5
eS 16
Distance 35 Km

28 e 03:56:24

A. Sickinger
Seismologist

## PROVISIONAL READINGS AT ANTARCTICA

O'HIGGINS

Mar. 1964

28 e 03:56:12

GONZALEZ VIDELA

Mar. 1964

28 e(PKP)03:55:38
e 56:10

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PROVISIONAL READINGS AT ANTOFAGASTA

Mar. 1964

3 eP 15:03:09.4
eS 45.3
Compresssion?
Distance 320 Km

eP 20:02:01.4
eS 36.7
Dilatation
Distance 310 Km

4 No records from 11:00 to 23:40 GMT.

iP 23:41:22.0
eS 33.8
Compression
Distance 100 Km

5 eG 06:46:--
eR 53:--

iP 11:46:07.6
iS 46.7
Compression from NE
Distance 350 Km

eP 16:58:07.7
eS 43.8
Distance 320 Km

eP 21:45:36

6 eP 01:04:24.3
eS 05:02.8
Distance 330 Km

eP 16:40:24.1
iS 54
Distance 230 Km

iP 20:56:34.4
eS 57:13
Compression
Distance 370 Km

iP 21:06:48.0
i 07:46
Dilatation
Small local

7 eP 04:51:49
iS 52:35
Distance 440 Km

e S) 10:16:11
e 19:42
eR 21:05

Mar.

7 eP 17:48:00
iS 18.2
Distance 160 Km

8 eSKS 01:59:44
eS 02:00:23
eSP 01:32
eSS 06:--
eG 14:--
eR 19:--

iP 06:26:42.8
iS 27:19.6
Compression from SE
Distance 330 Km

9 iP 02:50:57.6
eS 51:24
Compression
Distance 250 Km

iP 06:33:19.3
iS 44
Compression from SE
Distance 230 Km

iP 20:23:46.8
eS 24:04.9
i 08.5
Dilatations
Distance 160 Km

10 iP 11:27:25.7
iS 46
Compression
Distance 180 Km

eP 12:03:17
Smalllocal

iP 14:09:54.6
iS 10:33
Compression from NE
Distance 340 Km

e(P) 14:19:41
i 51.2
Dilatation

eP 22:49:33
i 50:19
i 40
Small local

11 e(P) 01:45:48
i 53

e 05:56:50

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PROVISIONAL READINGS AT ANTOFAGASTA

Mar. 1964

11 iP 08:15:03.4
eS 39.8
i 41.1
Compression
Distance 350 Km

eP 17:29:42.1
iS 30:04.6
Distance 180 Km

12 eP 05:22:54.6
iS 23:03.1
Distance 60 Km

eP 12:23:31.5
eS 24:07.2
i 07.9
Distance 310 Km

13 iP 00:24:48.8
iS 25:25.6
Compression
Distance 330 Km

eP 02:11:42
iS 12:11
Distance 270 Km

e 04:39:40
i 42:33
iR 43:55

eP 05:50:09
eS 46.9
i 51.0
Distance 340 Km

eP 07:45:28.0
i 29.1
iS 52.2
Distance 220 Km

iP 08:14:20.8
iS 26.0
Compression from SE
Distance 40 Km

iP 09:42:11.4
eS 49
i 50.5
Compression
Distance 360 Km

iP 10:46:25.8
iS 35.7
Dilatation
Distance 80 Km

Mar. 1964

13 eP 18:01:07.4
Dilatation
Small local

iP 22:22:47.3
iS 23:04.1
Dilatation
Distance 140 Km

14 iP 01:21:07.0
eS 52.7
Distance 410 Km
Compression

iP 02:44:13.7
eS 49.4
i 50.4
Compression
Distance 340 Km

eP 04:15:24
Small local

eP 06:36:01.3
e(S) 21.6
i 23.2

eP 15:36:04

eP 16:21:53.5
i 22:54.2
eS 28.5
Distance 310 Km

iP 16:22:12.0
eS 37.2
Dilatation
Distance 210 Km

eP 16:46:56
eS 55:06
eR 17:05:--
Dilatation?
Distance 60°

eP 17:08:39.0
eS 56
Distance 150 Km

eP 19:04:34.9
i 35.6
eS 05:18
Distance 410 Km

iP 21:14:09.2
iS 34.0
Compression from NE
Distance 200 Km

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PROVISIONAL READINGS AT ANTOFAGASTA

Mar. 1964

15 eP 03:23:07.0
eS 40.5
Distance 315 Km

i(PKP) 08:19:36.3
Compression

eP 10:05:23.9
eS 58.9
i 06:00.1
Compression
Distance 310 Km

iP 13:50:26.1
iS 51:01
Compression from SE
Distance 330 Km

iP 14:09:57.6
iS 10:12.0
Compression
Distance 120 Km

iP 22:42:56.3
iS 53:22
eSS 58:51
eSSS 23:02:05
eG 04:40
eR 09:55
Compresssion from NE
Distance 85°
Magnitude 7¼

16 iP 01:06:29.6
eS 47
Dilatation
Distance 150 Km

eP 06:05:01.5
eS 29.2
Distance 240 Km

iP 07:35:39.7
iS 36:03.1
Dilatation from NE
Distance 190 Km

eP 09:03:49.5
i 50.1
Small local

eP 10:04:37
eS 05:16
Distance 370 Km

eP 18:33:13.9
eS 48.6
Dilatation
Distance 300 Km

Mar.

17 eP 03:27:07.8
eS 38.0
Distance 260 Km

eP 04:11:27.2
eS 49.0
Compression
Distance 180 Km

eS 05:15:18
eSS or eG 18:34
eR 20:20

iP 07:42:06.8
iS 44
Compression
Distance 350 Km

eP 17:01:28.6
eS 45.0
Compression
Distance 130 Km

18 No records from Mar. 18 at 01:00 to Mar. 19 at 13:15 GMT.

19 iP 15:51:51.4
iS 56
Compression from NW
Distance 40 Km
Felt

iP 16:01:41.9
iS 46.5
Compression from NW
Distance 40 Km
Felt

iP 17:40:16.2
iS 20.5
Compression from NW
Distance 40 Km
Felt

e(P) 21:57:39
ePP 22:01:33
eSKS 08:12
eSP 09:57
eSS 15:10
eG 22:--
eR 27:--

iP 22:31:04
e(S) 32:28
Compression

20 iP 00:38:29.5
eS 50.8
Dilatation
Distance 170 Km

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# PROVISIONAL READINGS AT ANTOFAGASTA

Mar. 1964

20 eP 03:29:52.6
i 53.2
e(S) 30:03.7

eP 03:53:35.6
eS 45.1
Compression?
Distance 80 Km

eP 07:00:33
e 04:53

iP 10:45:55.7
iS 46:39.7
Dilatation from NE
Distance 400 Km

eP 12:08:15.6
eS 42.4
Distance 230 Km

21 iP 02:02:07.2
i(S) 49.4
Compression

iP 04:07:17.3
iPP 02:41
iPKP 04:22
e(SKS) 10:51
ePKKP 14:10
eSS 22:55
eR 45:--
Compression from SW
Interpretation doubtful!

eP 10:43:31.6
iS 39.8
Compression from SE
Distance 70 Km

iP 20:30:17.1
eS 56
Compression
Distance 370 Km

eS 15:24:52
e 27:16
eG 30:17
eR 33:--

iP 22:02:47.4
iS 53.7
Compression from NE
Distance 50 Km

22 iP 03:34:49.9
iS 55.5
Compression
Distance 50 Km

Mar. 1964

22 eP 04:19:24.5
eS 20:02.5
Distance 340 Km

iP 05:00:51.5
eS 01:25.9
Compression
Distance 300 Km

iP 07:09:52.8
Compression

iP 08:37:57
e(S) 40:07
eR 37
Compression
Distance about 12°

eP 19:55:29
eS 52.2
Distance 210 Km

23 eP 03:41:56.6
eS 42:37
Distance 380 Km

iP 11:20:11.4
eS 52
Compression
Distance 390 Km

iP 11:21:59.0
Dilatation
Superimposed to precedent shocks

iP 15:15:28.1
iS 43.8
Dilatation
Distance 130 Km

iP 22:20:54.7
iS 21:18
Compression
Distance 210 Km

24 eP 04:23:36
eS 24:03
Distance 250 Km

eP 11:58:24
Small local

eP 16:12:58.6
eS 13:11.6
Distance 110 Km

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PROVISIONAL READINGS AT ANTOFAGASTA

Mar. 1964

24 eP 17:39:10.7
e(S) 40:11
Dilatation

25 iP 17:58:51.5
iS 08.0
Distance 130 Km

26 ePKP 02:24:07

iP 03:17:45.7
iS 18:22.9
Dilatation
Distance 330 Km

iP 13:37:15.0
iS 43:14
iG 46:02
iR 47:27
Distance 40g°

eP 22:[illegible]:05.1
iS 22:34.7
Distance 280 Km

27 eP 03:39:17
eL 41:14

eP 18:28:24.6
iP 26.7
i(S) 29:07.5

28 No records from L.P. components

iP 02:34:19.2
iS 59.3
Compression
Distance 365 Km

eP 03:50:18
Very trong motion!

iP 08:39:39.2
iS 40:28.0
Dilatation
Distance 480 Km

e(PKP) 11:49:46.8
i 54.6
i 50:09

eP 14:49:15
Local

Mar. 28 eP 21:24:09.3
eS 48.7
Compression
Distance 350 Km

29 Lectures difficulted on L.P. components by heavy microseisms

eP 15:14:59.0
Dilatation
Local

iP 23:56:24.8
iS 52
Compression
Distance 250 Km

30 iP 22:04:21.8
eS 05:00.4
Compression
Distance 340 Km

31 eP 03:34:08
iS 30.6
Distance 210 Km

iP 07:54:35.1
iS 55:13.4
Compression
Distance 340

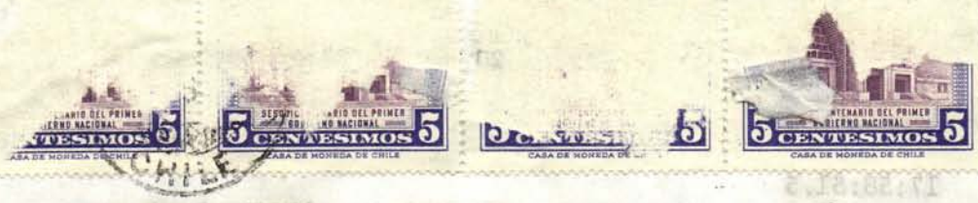
e(SKS) 09:25:08
eSP 26:50
eSS 31:42
eG 38:47
e(R) 43:40

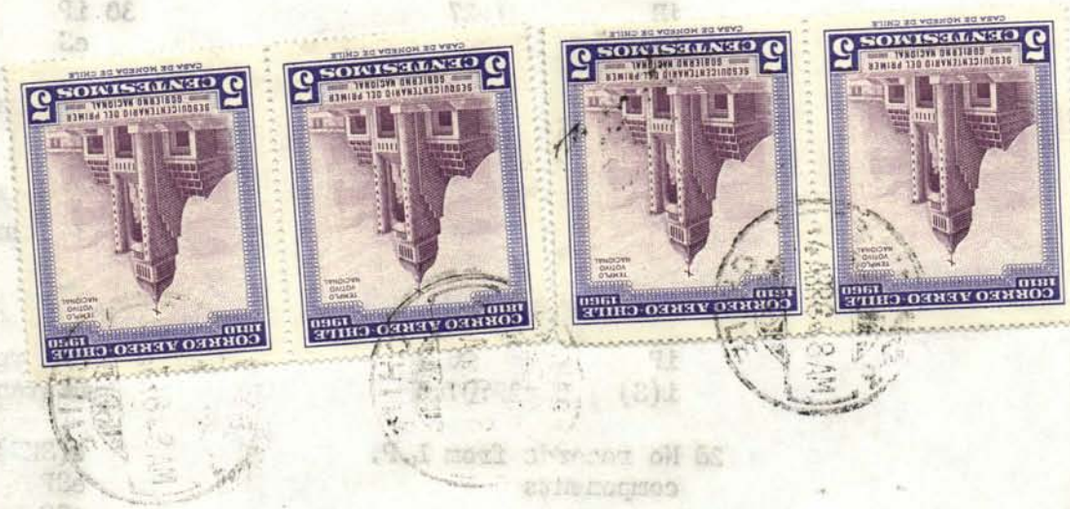
eP 11:43:41
eS 44:17.0
Distance 340 Km

iP 15:21:24.6
iS 22:06
Compression
Distance 390 Km

Frez
Seismologist

INTERNATIONAL SEISMOLOGICAL SUMMARY
KEW OBSERVATORY
RICHMOND, SURREY, INGLATERRA.



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# PROVISIONAL READINGS AT SANTIAGO
(Santa Lucía)

Apr. 21 Nothing
1964

22 eP 06:20:33,5
eS 52,7
Distance 120 km

eP 11:03:29.5
e(S) 04:42

eP 20:45:30.5

23 eP 03:52:10
e! 54:34
ePKP 55:32
e(S) 04:04:12
e(SP) 06:16
eSS 12:43
eSSS 16:50
eR 29:56
Distance approx.115°
Depth approx. 100 km
Doubtful!

eP 05:05:31.3
eS 49
Distance 160 km

e(P) 13:31:12.5
eS 29

iP 18:59:21.5
eS 50.5
Distance 170 km

eP 23:07:57

24 ePKP 06:15:09.4
ePP 17:12
ePKS 19:11
ePPS 29:08
eSS 34:28
e(SSS) 39:10
eR 56:24
Distance approx.130°

eP 07:21:45
eS 22:16.8
Distance 300 km

eP 08:21:05.2
e(S) 22:10

eP 10:21:52
e(S) 22:00
Small

eP 10:50:36.3

Apr. 25 eP 04:03:53
1964 eS 04:12
Distance 170 km

eP 10:05:28.2
eS 52.5
Distance 120 km
Small

eP 11:12:33.5
eS 59.2
Distance 140 km

26 eP 04:17:42.5
eS 18:03
Distance 80 km
Small local

27 eP 06:56:48
e 57:20
iS 07:06:50
iG 18:16
(R) 23:--
Distance 82°
MH 5.2 u, 15 sec.
Magnitude about 5 3/4

eP 06:58:57.8
Small local

iP 09:24:58.4
eS 25:17
Distance 170 km

28 iP 01:33:36.9
iS 56

e(P) 03:43:00
eS 10.4

eP 04:04:39.5

29 No records from S.P. vertical seismograph.

iP 00:45:05
iS 18
Dilatation from N-W?
Distance 110 km
FELT IV at Santiago
Magnitude about 5.

30 e(P) 08:17:40
eS 55.6
Small

eP 20:32:(00)
eS 09
Small local

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## PROVISIONAL READINGS AT SANTIAGO
(Santa Lucía)

May 1964 1 Nothing. No records from S.P.vertical seismograph.

2 eP 16:30:37
ePKP 34:08
e(SKS) 40:57
eS 43:49
e(SS) 53:03
eSSS 56:44
e(G) 05:34
eR 10:40
Compression
Distance about 122°
PZ 6.8 u, 10 sec
MH 23 u, 20 sec
Magnitude about 6½-7

May 1964 2 eP 21:02:22.5
e(S) 34
Small

3 e(P) 02:58:03
e(S) 52
Small

e(P) 09:44:47
e(S) 45:10
Small

P. Welkner
Seismologist

## PROVISIONAL READINGS AT CONCEPCION

Apr. 1964 8 eP 00:20:53.5
iS 56.5
Distance 25 km
FELT

8 P 19:52:--

eP 22:06:54

iP 23:27:28.6
iS 36.1
Distance 60 km

11 eP 21:33:26.4

12 eP 06:26:16

eP 06:26:50

16 iP 18:11:50
iS 12:11
Distance 170 km

iP 18:57:24.5
iS 30
Distance 35 km

Apr. 1964 17 eP 16:14:32

19 eP 05:17:23
eS 54
Distance 270 km

22 iP 11:03:41
iS 55.5
Distance 115 km

23 eP 18:59:29
iS 50
Distance 170 km

29 iP 00:45:53
iS 46:45
Distance 480 km

May 1964 3 eP 02:57:15
iS 21.5
Distance 50 km

A. Trautmann
Seismologist

## PROVISIONAL READINGS AT ANTARCTIC STATIONS

Gabriel González Videla

Apr. 1964 19 iP 14:13:34.5
iPP 41
iPPP 51
iS 14:41.5
e 15:04.5
iR 07
Distance about 650 km
Magnitude about 6½-7

O'Higgins

Apr. 1964 19 iP 14:13:03
i(S) 14:16
An 60 u, 10 sec.

P. Vera
Seismologist

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PROVISIONAL READINGS AT ANTOFAGASTA

Apr. 19 1964

eP 05:17:46
eS 21:42
eL 22:--
Compression from S.W.
Distance 22°

eP 19:44:05
eS 45:58
Distance 10°

iP 20:52:51
iS 53:09
Dilatation
Distance approx. 730 km

No readings from Apr.19 at 21:00 to Apr.20 at 14:00GMT on account of timing failure.

20 iP 16:15:48.3
eS 26.4
Dilatation
Distance 340 km

eP 23:02:01
eS 26.3
Distance approx. 210 km

21 eP 10:17:31.9
iS 18:08.6
Dilatation
Distance 320 km

iP 15:27:24.6
eS 28:32.0
Dilatation
Distance 640 km

eP 18:57:05
eS 37
Distance approx. 280 km

22 eP 00:24:07
e(S) 37

eP 05:55:56
e(S) 56:14.5

eP 14:35:03
iS 39.5
Distance a pprox. 320 km

eP 18:20:07.3
iS 30.1
Dilatation
Distance 190 km

23 iP 01:51:42.1
eS 56.9
Compression
Distance 120 km

Apr. 23 1964

eP 02:04:11
iS 31.5

e(PKP) 03:52:15
i 19
eSS 04:14:30
eG 32:55
eR 40:--

eP 19:01:45
i(S) 04:07

24 ePKP 06:15:08
i 23
i(pPKP) 17:56
i 19:32
i 20:37
iSP 27:55
iSPP 30:31
eSS 35:54
e 37:48
eSSS 41:39
eG 51:30
iR 07:00:26

eP 14:48:03.5
epP 34.3
e(PcP) 49:58
eS 54:05
esS 55:04
eG 57:13
eR 59:39
Compression from N-S?
Distance 41°
Depth 150 km

25 iP 01:35:13.4
eS 52.2
Compression from N.E.
Distance 340 km

eP 04:11:09.2
eS 56
Distance approx.430 km

iP 11:48:07.6
iS 49:34
Dilatation from N.W.
Distance approx. 820 km

eP 12:03:28.5
e(S) 50

iP 18:45:59.1
eS 46:25
Compression from N.E.
Distance approx. 220 km

eP 18:28:06.9
eS 41.0
Distance 300 km

1964 e(S) 55
Compression

iP 10:01:44.6
eS 02:22
i 23.2
Distance 330 km

eP 10:29:44
Small local

eP 14:19:06.4
i 11.4
Compression?

iP 17:19:13.2
iS 33.4
Compression
Distance 160 km

eP 20:54:36.9
Small local.

J. Frez
Seismologist

Apr. 27 e(P) 06:57:45
1964 eSKS
eS
eSP
eSS 14:--
i 14:29
eSSS 18:--
eG 21:--
eR 25:30

eP 18:32:19.3
local

iP 20:32:53.6
iS 33:29.6
Compression
Distance 320 km

eP 23:48:49
iS 49:26.6
Distance approx. 340 km

28 iP 04:03:36.5
iS 56.0
Dilatation
Distance 160 km

No readings from Apr.28 at 16:30 to Apr.29 at 12:45 on account of timing failure.

29 eP 17:22:36
eS 23:05
Distance approx.250 km

eP 17:46:21
i 48

eP 18:01:18.8
eS 02:33
Compression?
Distance 720 km

30 eP 04:23:14.4
i 14.6
iS 58.3
Distance 400 km

iP 10:49:34.2
iS 53
Distance approx. 150 km

INTERNATIONAL SEISMOLOGICAL SUMMARY
KEW OBSERVATORY
RICHMOND, SURREY, INGLATERRA.

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# PROVISIONAL READINGS AT SANTIAGO
(Santa Lucía)

May 1964

4 iP 04:22:03
Small Local

eP 17:14:14
e(S) 21:20
eL 24:22

eP 17:23:13.6
iS 28
Dilatation
Distance 120 km

5 eP 14:06:53.9
e(S) 07:08.7

iP 16:04:02.5
eS 12,6
Distance 90 km
FELT

6 eP 04:34:38.7
eS 40:48
eG 44:04
Distance 41°

eP 07:11:31.6
eS 12:00
Distance 260 km

7 e(P) 05:59:37
ePP 06:03:36
eS 11:07
e(PS) 12:48
eSS 17:46
eSSS 21:40
e! 23:44
eG 27:28
eR 30:30
Distance about 99°
SH 6.3 u, 16 sec
MH 24 u, 18 sec.
First arrival doubtful!

i(PKP) 08:18:06
i! 22:44
e(SS) 40:40
eG 57:54
e(R) 09:09:40
Compression
MH 63u, 20 sec.
Doubtful!
Superimposed to precedent shock.

iP 13:58:43
eS 59:06
Distance 310 km

May 1964

7 eP 14:47:51

e(P) 20:32:42
e! 37:18
e! 57:12
Same focus than 08:18?

8 e(SS) 16:57:49
eR 17:15:31

eP 19:40:--

eP 20:39:10
eS 40:52
Distance 1000 km

9 eP 05:41:43
eS 53
Distance 80 km
Small local

eP 08:51:38.3
eS 51
Distance 110 km
Small

10 eP 14:49:26.3
eS 41.4
Distance 130 km
Small

eP 20:01:57.7
eS 02:02.5
Distance 30 km
Small Local

11 NOTHING

Readings on SP difficulted by noise.

12 eP 04:58:14.5
e(S) 52

eP 06:51:40.5

eP 11:13:56.2
e! 15:28

eP 18:27:18,5

e(PKP) 18:43:09
e(PPP) 45:47
eS 51:57
e(SSS) 19:02:56
eG 10:18
MZ 2.5 u, 20 sec.

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# PROVISIONAL READINGS AT SANTIAGO
(Santa Lucía)

May 13 1964
eP 05:38:04
eS 48:25
e(SS) 53:40
eR 06:04:08
Compression?
Distance 84½°
SH 16 u, 20 sec.
MH 18 u, 20 sec.
Magnitude about 6 1/4-6½.

eP 07:09:37.5
e(S) 10:09

eP 07:32:42.5
Small

e(S) 17:05:56
eL 22:40

e(S) 21:00:56
eL 18:--

14 iP 01:53:00
iS 09.6
Distance 80 km
FELT IV at Santiago.

iP 13:03:57.5
iS 04:09.5
Distance 100 km
Small

iP 14:14:57.3
iS 15:05
Dilatation from NE?
Distance 65 km
SH 39 u, 5 sec.

eP 20:07:12.5
Small Local

15 eP 09:02:32.4
eS 03:52.4
e(R) 04:12
Distance 790 km

eL 11:50:44

SAN 16 eP 06:38:39
eS 39:58.2
Distance 780 km

eP 10:37:48.5
eS 57.3
Distance 70 km
Small

May 16 1964
eP 16:20:22
eS 30:48
eG 45:07
eR 48:52
Distance 85°
MH 6.8 u, 18 sec.
Magnitude 5.8

eP 22:40:07.2
eS 14.7
Distance 60 km
Small

17 eL 01:43:--

eP 03:04:33
eS 05:49.5
Distance 760 km

eP 03:55:06
eS 56:28.3
eR 46
Distance 820 km

eP 10:29:09.4
i(S) 36.8
Dilatation

eP 10:57:40.5
eS 58:05
Distance 230 km
Small

iP 12:50:35.3
iS 51
Distance 140 km
Small

e(P) 18:08:05.5
Small Local

e(P) 19:24:54.5
Small

eP 19:38:(05)
eS 47:48
e 52:14
eL 55:40
Distance about 80°
Deep focus?

P. Welkner
Seismologist.

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## PROVISIONAL READINGS AT COPIAPO.

May 1964

3 eP 20:29:24
eS 33
Distance 75 km

4 e 09:19:49

6 e 07:10:52
e 11:30

eP 09:40:58
eS 41:08
Distance 80 km

7 e 08:18:11
e 19:33
e(S) 20:07

e 13:14:41

May 1964

7 eP 20:48:14
eS 27
Distance 105 km

8 eP 20:37:45
eS 38:25
Distance 355 km

10 eP 00:26:05
eS 12
Distance 55 km

eP 17:38:44
eS 51
Distance 55 km

12 eP 00:22:44
eS 23:08
Distance 200 km

L.Cabello
Seismologist

## PROVISIONAL READINGS AT CONCEPCION

Mayo 1964

7 eP 13:58:54
eS 59:27
Distance 270 km

11 iP 19:10:11
iS 20.5
Distance 75 km

14 eP 01:54:05
eS 30
Distance 210 km

15 eP 08:22:08
eS 22
Distance 110 km

iP 09:01:38
iS 53
Distance 120 km

eP 09:20:29
eS 41
Distance 95 km

eP 09:45:19

May 1964

15 eP 09:46:02

eP 10:17:51
iS 18:07
Distance 130 km

15 eP 10:31:34
iS 55.5
Distance 175 km

16 eP 06:37:48
eS 38:07
Distance 150 km

17 eP 03:03:36.2
eS 51.0
Distance 120 km

eP 03:54:15.6
eS 32
Distance 128 km

18 i(P) 10:47:14.2

A. Trautmann
Seismologist.

## GABRIEL GONZALEZ VIDELA - ANTARCTICA

May 1964

2 e(R) 17:22:34

4 e(P) 17:15:05
e(SKS) 21:17
eL 26:--

P. Vera
Seismologist

May 1964

6 i(P) 04:31:11
e(SKS) 41:40
eS 43:45
e(SS) 52:16

7 e 06:30:05

7 i(PKP) 08:18:03.5

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# PROVISIONAL READINGS AT ANTOFAGASTA

Apr.30 1964
iP 14:34:56.3
iS 35:47.3
Dilatation
Distance 470 km

eG 16:57:--
eR 17:03:36

May 1 1964
eP 04:20:06.5
Small local

iP 04:20:42.8
i(S) 21:12

iP 04:27:59.8
iS 28:37.3
Dilatation
Distance 330 km

eP 09:52:48
Local

eP 16:40:29
eS 41:09
Distance about 360 km

iP 19:41:07
eS 53
Dilatation
Distance about 420 km

eP 23:21:47
eS 22:24
Distance about 330 km

2 eP 08:45:31
e(S) 46:20

iP 15:20:21.1
eS 21:04.1
Dilatation
Distance 390 km

ePKP 16:30:22
ePP 33:38
eSS 51:50
eSSS 56:35
eG 17:08:--
eR 15:43
Distance 143°

eP 16:27:20.3
Small local

3 eP 02:53:37.4
eS 54:00.0
Distance 180 km

May 3 1964
eP 00:14:20.2
eS 57.3
Distance 330 km

eP 06:26:18.2
i 18.5
eS 27:06
Distance approx. 440 km

iP 09:06:32.5
eS 07:08.8
Dilatation
Distance 320 km

iP 13:10:59.5
eS 11:41.8
Compression from NE
Distance 380 km

iP 13:32:10.6
i(S) 51.4
Compression from NE

iP 16:02:50.9
iS 03:28.0
Dilatation
Distance 330 km

4 eP 07:51:39.3
eS 52:17.6
Distance 340 km

eP 13:48:39.6
eS 49:00.6

iP 14:20:19.7
iS 04.8
Compression
Distance 410 km

eP 17:15:05
eS 23:02
eSS 26:28
eG 29:18
eR 32:35
Dilatation
Distance 58°

eP 22:17:10
eS 48
Distance approx. 340 km

5 iP 03:28:14.4
iS 29:13
Distance approx. 550 km

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# PROVISIONAL READINGS AT ANTOFAGASTA

May 1964

5 eP 20:54:00
eS 35
Distance approx. 310 km

6 No records from 04:00 to 14:45 GMT.

eP 14:57:32
Small local

eP 18:02:36.7
eS 49.7
Distance 110 km

iP 18:39:36.3
iS 40:20.1
Compression
Distance 390 km

eP 21:54:27
eS 53.6
Distance approx. 230 km

eP 20:26:46.0
eS 27:11.8
Distance 220 km

7 e(P) 03:20:32
Small local

ePP 06:04:--
eSKS 10:05
eS 11:35
eSS 13:39
eG 57:55
i 58:25

eP 08:18:01
i 04.8

i(P) 08:19:53
Another shock?
Local

eS 08:43:33.4

eP 11:15:03
e(S) 16:14
Distance 670 km

iP 13:13:28.6
iS 56.5
Compression
Distance 240 km

eP 17:05:42
eS 06:00
Distance approx. 150 km

May 1964

7 eP 20:30:56.3
eS 31:28
Distance approx. 280 km

ePKP 20:32:37
i 40.0
ePP 36:05
eSKSP 46:35
eSS 55:14
eSSS 21:00:42
eG 13:--
eR 21:30
Distance about 147°

iP 20:48:49.5
i(S) 49:44
Compression
Distance 500 km

8 eP 09:42:58.0
eS 45
Distance approx. 430 km

eP 12:59:42
eS 55.9
Distance approx. 110 km

eS 16:48:--
eSP 49:41
eSS 55:36
eG 17:05:55
eR 12:30
Interpretation doubtful

iP 18:10:57.7
iS 11:32.3
Compression
Distance 300 km

eP 19:57:26.0
eS 58:12.3
Distance 420 km

iP 20:37:15.0
iS 29
Dilatation from SE
Distance approx. 110 km

iP 22:17:09.0
iS 24.8
Dilatation from NW
Distance 130 km

iP 22:31:18.4
eS 25
Distance approx. 60 km

9 ePKP 00:28:03

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PROVISIONAL READINGS AT ANTOFAGASTA.

May 9 1964
eP 02:41:13
eS 52
Distance approx. 350 km

ePKP 15:30:02.7
i 09.1

iP 23:28:17.7
iS 36.5
Compression
Distance 150 km

10 eP 01:34:34.4
iS 48.0
Distance 110 km

eP 01:50:36
iS 55.4
Distance approx. 150 km

eP 03:32:30.7
iS 46.5
Dilatation?
Distance 130 km

ePKP 05:59:29.4

ePKP 11:05:42.9

iP 13:34:21.3
iS 26.4
Dilatation from SE
Distance 40 km

iP 19:21:55.3
eS 22:44
Dilatation
Distance 450 km

11 iP 09:58:41.9
iS 59.4
Dilatation
Distance 140 km

11 iP 16:46:30.6
iS 46.7
Dilatation
Distance 130 km

eP 18:33:56
eS 34:17
Distance approx. 170 km

May 12 1964
iP 00:22:56.4
iS 23:29
Dilatation
Distance approx.290 km

eP 04:38:19
eS 39:57
Distance approx. 340 km

No records from LP seismographs.

iP 00:42:11.1
iS 33
Compression
Distance approx.180 km

e(PKP) 07:45:54.5
Dilatation

iP 09:36:00.1
Small Local
Compression

eP 10:56:00
eS 57:20
Distance approx.760 km

e(PKP) 23:54:16

13 eP 01:55:18

e(PKP) 02:49:41

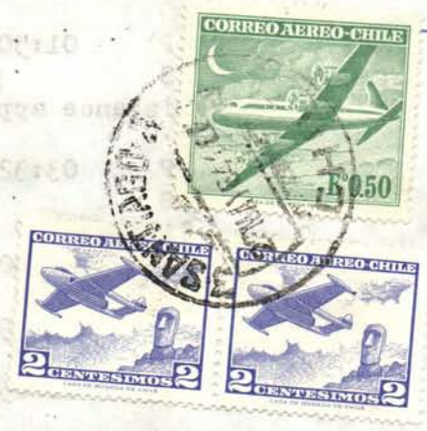
eP 04:39:50
local

eP 10:11:02.0
iS 02.5
eS 41.1
Distance 350 km

iP 11:32:09.4
e(S) 35
Dilatation
Distance 220 km

J. Frez
Seismologist.

INTERNATIONAL SEISMOLOGICAL SUM
KEW OBSERVATORY
RICHMOND, SURREY, INGLATERRA.

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# PROVISIONAL READINGS AT SANTIAGO
(Santa Lucía)

May 17 1964
eP 23:51:46
e(S) 52:09.5
Small

18
eP 04:06:44
eS 55
Distance 90 km
Small

eP 09:05:38
Small Local

iP 10:48:06
eS 49:20
eR 46
Dilatation
Distance 720 km
MH 14.3 u, 10 sec.

eP 11:19:28.5
e(S) 20:38

e(P) 12:31:12
e(S) 32:16
Small

e(S) 14:35:35
e 41:48
eL 53:--

eP 20:48:20
e(S) 43
Small

19
eP 13:22:30
e(S) 37.5
Small local

eP 14:37:09
eS 33
Distance 220 km

eP 23:10:18
ePP 11:34
iS 15:40
iG 17:46
eR 19:30
Dilatation from N-W?
Distance 35°
SH 18.6 u, 10 sec.
MH 38.6 u, 20 sec.
Magnitude 6.0

20
e(PPP) 06:24:18
eSKS 29:04
eG 45:06
Distance about 98,5°

May 20 1964
eP 17:48:38

21
Readings difficulted by microseisms from May 21 to May 24.

eP 05:48:41.7
eS 56.2
Distance 120 km
Small

e(P) 10:52:46.8

eP 15:32:30

22
eP 02:37:16

eP 10:03:58.2
eS 04:32.5
Distance 320 km

23
eP 07:26:22.6
eS 32.4
Distance 80 km
Small

eP 15:55:37
e(S) 56:07

e(P) 18:28:11
eS 45.8

24
eP 03:07:40.5
eS 08:51.5
Distance about 700 km

25
e(P) 08:02:07
eS 39

26
e(P) 03:42:01.7
eS 13.3

e? 11:06:10
iP 11:06:16
epP 40
ePP 07:36
iS 11:52
e(sS) 12:24
eG 14:16
e(R) 16:16
Dilatation from S-E
Distance 36°
Depth about 100 km
Magnitude about 7½

eP 16:45:29.5
eS 46:03
Distance 315 km

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# PROVISIONAL READINGS AT SANTIAGO
(Santa Lucía)

May 1964

27 eP 01:03:42
e 04:09
eS 09:18
eR 11:54
Distance 36½°
MH 20 u, 22 sec.
Magnitude about 5 3/4

eP 02:37:28
eS 44
Distance 140 km
Small

e(S) 06:44:12
eR 46:25

eP 09:29:13.5
eS 39.4
Distance 240 km
Small

eP 18:08:21.5
eS 09:02
Distance 385 km

eP 21:09:40.5
e(S) 51.5
Small

28 e(S) 12:50:08
eL 58:18

e(P) 12:54:29
e(S) 58
Same shock?

eL 18:10:--

e(P) 19:01:56
Small Local

eL 21:28:--

29 iP 05:35:58
eS 36:34
Distance 340 km

eP 11:16:43.5
eS 17:04
Distance 185 km
Small

eP 17:45:59.5
eS 46:27
Distance 255 km
Small

P. Welkner
Seismologist

May 1964

29 eP 18:59:20.5
eS 42
Distance 195 km
Small

eP 19:13:48.3
eS 14:12.7
Distance 225 km
Small

eP 22:40:08.5
eS 41:04.9
Distance 550 km

30 Readings difficulted by microseisms on May 30 and 31.

eP 06:51:42.5
eS 58.5
Distance 140 km
Small

e 15:04:08
eL 14:--

eG 15:41:30
eR 44:25

iP 19:25:57
eS 26:54
Distance 550 km
FELT V at Copiapó
Magnitude about 5

31 Readings from S.P. very doubtful!
eP 00:26:27
eS 27:14
Distance about 440 km

eP 01:00:18.5
eSKS 10:32
e(S) 14:05
eSS 22:50
e(G) 40:56
Distance 130°
Deep focus?
PZ 10.7 u, 8 sec.
MZ 14 u, 28 sec.
MH 30.6 u, 28 sec.
Magnitude about 6 3/4-7

iP 04:54:55
iS 55:12
Distance 150 km

iP 09:04:45
e(S) 56
Small local

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## PROVISIONAL READINGS AT COPIAPO

May 1964 14 eP 06:05:17
eS 25
Distance 65 km

May 1964 16e 16:03:42

17 e 00:24:42

L. Cabello
Seismologist

## PROVISIONAL READINGS AT CONCEPCION

May 1964 18 eP 20:48:16

eP 21:25:31

19 eP 01:45:00
eS 18.5
Distance 145 km

eP 01:47:42

22 eP 11:37:47
eS 38:02
Distance 120 km

eP 12:36:00
eS 17
Distance 135 km

May 1964 24 eP 03:04:31.5
eS 49
Distance 135 km

eP 03:06:38
eS 52
Distance 115 km

eP 03:40:28
eS 43
Distance 120 km

26 eP 11:06:06.5
e(S) 12:21

A. Sickinger
Seismologist

## GABRIEL GONZALEZ VIDELA - ANTARCTICA

May 1964 12 e(L) 19:31:03

13 e 05:59:09
eL 06:02:21

16 eL 16:45:53

19 e 23:35:--

26 eP 11:03:30
e(S) 07:08
Distance about 20°
Very strong

27 iP 01:01:02.2
iPP 21.2
iPPP 33.4
iS 04:35.2
iSS 05:06.2
iSSS 27.2
eR 59
Distance about 20°

May 1964 27 iP 06:35:15.3
iPP 36
iS 38:49
iSS 39:21.2
iSSS 42
eR 40:17.7
Distance about 20°

P. Vera
Seismologist

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# PROVISIONAL READINGS AT ANTOFAGASTA

Correction to last bulletin.

May 13 1964
iP 00:42:11.1
iS 33
Compression
Distance approx. 180 km

e(PKP) 07:45:54.5
Dilatation

iP 09:36:00.1
Small Local
Compression

eP 10:56:00
eS 57:20
Distance approx.760 km

e(PKP) 23:54:16

May 14 1964
eP 01:55:18

e(PKP) 02:49:41

eP 04:39:50
local

eP 10:11:02.0
iS 02.5
eS 41.1
Distance 350 km

iP 11:32:09.4
e(S) 35
Dilatation
Distance 220 km

---

May 14 1964
No records on L.P. E-W from May 14 at 14:00 to May 21 at 13:00 GMT

iP 15:24:13.5
iS 50.2
Compression from E.S.E.
Distance 320 km

15 eP 06:16:22
Small local

eP 15:10:07.1
iS 17.9
Distance 460 km

eP 02:42:28.0
eS 44.9
i 45.6
Distance 140 km

16 ePKP 08:58:17.0
Compression

eP 10:01:36
iS 02:04.4
Distance approx. 240 km

No records from May 16 at 13:24 to May 19 at 15:00 GMT
No records on L.P. Z until May 23.

19 iP 20:31:06.4
iS 12.8
Compression from E
Distance 50 km

May 19 1964
eP 22:27:20
eS 40
Distance approx. 160 km

iP 23:08:59
e 13.2

20 iP 17:08:56.8
iS 09:40
Dilatation from N.E.
Distance approx. 390 km

iP 23:49:36.7
eS 50:17.6
Dilatation 370 km

21 eP 03:27:04
iS 23.5
Distance approx. 180 km

iP 12:24:44.3
e(S) 25:20
i 20.5
Compression from E.

eP 15:41:45
Small Local

eP 22:40:32.0
eS 47:00
Compression
Distance about 44°
P.Z. 0.1 u, 1.3 sec.
Magnitude 5 1/4- 5 3/4

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PROVISIONAL READINGS AT ANTOFAGASTA

May 22 1964

iP 07:46:25.2
iS 54.2
Compression from S.E.
Distance 250 km

iP 10:25:34.5
iS 26:11.0
Compression from E.S.E.
Distance 320 km

eP 12:49:36.0
i 36.8
iS 50:19.0
Distance 390 km

iP 23:52:49.8
iS 54.6
Compression from N.N.O.
Distance 40 km

23 eP 00:56:26.5
iS 40.0
Distance 110 km

iP 02:34:04.5
iS 48.0
Dilatation from E.N.E.
Distance 390 km

iP 05:44:04.8
eS 49.2
Compression from E
Distance 400 km

iP 10:51:35.4
eS 52:15
Compression
Distance 360 km

eP 10:58:18.5
eS 52.4
i 53.6
Compression from E
Distance 290 km

e(PKP) 11:41:44.5
Dilatation

iP 13:11:57.7
eS 12:37.5
Dilatation
Distance 350 km

eP 13:45:34.9
eS 46:00
Distance approx. 210 km

May 23 1964

eP 13:49:17.0
eS 35
Distance approx. 150 km

eP 14:37:16
eS 55
Distance approx. 350 km

eP 16:42:10
i 11.3
iS 52
Distance approx. 370 km

iP 18:07:13.2
eS 51.6
Compression from E
Distance 340 km

iP 21:32:21.4
i(S) 33:16
Distance approx. 560

24 eP 01:44:13
iS 34.6
Distance 180 km

iP 02:19:23.5
eS 20:02.1
Compression from E
Distance 340 km

eP 05:14:45
eS 15:23.7
Distance approx. 350 km

e(PKP) 10:51:15

eP 14:34:15
eS 42.8
Distance approx. 240 km

iP 18:01:55.1
local
Dilatation from N.O.

25 eP 11:27:27.2
i 28.0
iS 28:15.5
Distance 440 km

eP 13:52:38.7
iS 53:06.7
Distance 240 km

No records on L.P. components from May 25 at 15:00 to May 27 at 15:00 GMT.

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PROVISIONAL READINGS AT ANTOFAGASTA.

May 25 eP 19:57:28.8
1964 iS 43.6
Distance 120 km

26 eP 01:28:24
iS 39.0
Distance 120 km

iPKP 10:00:27.5

eP 11:07:15
i 20.5

27 eP 00:21:23.8
iS 41.1
Distance 140 km

eP 01:04:47.5
PZ 0.12 u, 0.7 sec.

i(PKP) 01:10:07.5

eP 11:22:22.7
eS 24:45.1
Distance 180 km

No records on L.P.Z from May 27 at 15:00 to May 29 at 15 GMT

iP 17:31:02.3
iS 09.9
Small local
Compression from N.
Distance 60 km

May 27 eP 20:49:45.5
1964 i 46.3
iS 50:16.4
Distance 260 km

ANT

eP 23:32:52.8
i 53.2
eS 33:40.8
Distance 440 km

28 eP 03:16:16.2
eS 48
Distance approx. 280 km.

eP 11:01:13.3
eS 35
Distance approx. 180 km

e(S) 12:49.1

eP 12:52:33
e(S) 54:23

29 iP 00:22:01.2
eS 39.8
Compression from NE
Distance 340 km

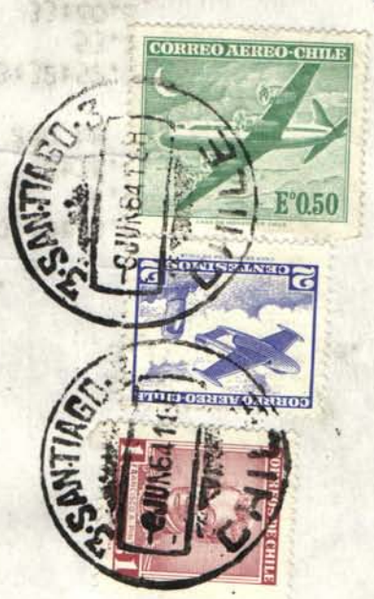
eP 05:37:17.8
e(S) 38:51

eP 09:12:39.9
PZ 0.1 u, 0.9 sec.

J. Frez
Seismologist

530

INTERNATIONAL SEISMOLOGICAL SUMMARY
KEW OBSERVATORY
RICHMOND, SURREY, INGLATERRA.



Santiago — June/64

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# PROVISIONAL READINGS AT SANTIAGO

(Santa Lucía)

May 1964 31 iP 23:32:36
i(S) 49
Small

June 1964 1 No records from L.P. components.

eP 02:38:56
e(S) 39:24.5
Small

iP 02:51:27.9
Small

i(P) 03:04:45.5
Small local

iP 21:27:19

2 eP 01:45:34.5

e(S) 05:24:59
Small

eP 07:54:50
eS 55:06
Distance 140 km
Small

eP 08:07:55.5

iP 08:25:54.3
eS 26:09
Distance 130 km
Small

iP 16:50:05.6
iS 34.5
Dilatation
Distance 270 km

e(P) 19:19:13
iS 34.4
Small

eP 20:11:59
Small

3 Readings difficulted by microseisms from June 3 to June 10.

eP 00:31:18
e(S) 36.5

June 1964 3 iP 06:34:25,5
iS 41.2
Distance 140 km
Small local

eP 19:27:39.2
e(S) 56.5
Small

4 iP 09:26:57.3
eS 27:22
Dilatation
Distance 230 km

e(S) 18:51:33.2

eP 21:49:58

5 eP 01:16:43.5
Small

eP 14:56:13.5
eS 35
Distance 200 km
Small

eP 14:57:32.5
Small

eP 21:43:11.5
e(S) 31

6 eP 06:40:44.4
Small

eP 15:58:02
eS 09.8
Small

eP 18:28:21.7
Small local

e(SKS) 19:16:12
eL 24:04

7 No records from 11:06 to 23 G.M.T. on account of power failure.

8 Nothing

9 e(P) 02:37:44,8
Small

Passed 6

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# PROVISIONAL READINGS AT SANTIAGO
(Santa Lucia)

June 1964

9 eP 03:07:26.5
eS 47.6
Distance 190 km

eP 09:01:24
eS 42
Distance 160 km

eP 13:12:49
eS 13:16.5
Distance 260 km

eP 17:09:58

10 e(P) 02:34:01.6
eS 25.5

eP 06:15:07.5
Small local

eP 06:19:39
Small

iP 07:17:30.5
iS 41
Dilatation
Distance 100 km

e(P) 19:16:07.5

iP 22:36:14.4
e 46
Dilatation?

11 eP 05:45:28
eS 58
Distance 280 km
Small

eP 09:45:46
e(S) 46:02
Small

12 Nothing

13 e(S) 07:43:56

June 1964

13 eR 23:12:18

14 eP 00:55:39.5
eS 56:29.5
Distance 370 km

eP 17:39:24
eS 43
Distance 170 km

15 eS 00:25:20.7
Small

eS 00:54:12
eG 01:15:36

eP 14:28:50

16 iPKP 04:21:38
e 23:39
ePP 25:49
ePS 35:54
e(PPS) 38:58
eSS! 44:58
e(SSS) 49:30
eG 05:04.1
eR 09.9
Compression
Distance about 156°
Magnitude about 7-7 1/4

e 07:55:26

17 e(P) 05:13:03.5
eS 32

eP 05:31:03
e(S) 29.5
Small

eS 16:09:23
Small

eP 20:21:(00)
eS 17
Small

P. Welkner
Seismologist

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## PROVISIONAL READINGS AT COPIAPO

| | | | |
|---|---|---|---|
| May 1964 | 19 | e | 23:09:31 |
| | | e | 14:12 |
| | | e | 17:49 |
| | 21 | e | 10:52:10 |
| | 24 | eP | 18:03:08 |
| | | eS | 22 |
| | | Distance 115 km | |
| | 26 | iP | 11:06:59 |
| | | e | 09:02 |
| | | e | 13:01 |
| | | e | 16:10 |
| | 27 | eP | 19:27:16 |
| | | eS | 26 |
| | | Distance 80 km | |
| | 30 | iP | 19:25:05 |
| | | eS | 19 |
| | | Distance 115 km | |
| | 31 | e | 00:26:30 |
| | | e | 01:00:15 |
| | | eP | 04:55:16 |
| | | eS | 52 |
| | | Distance 315 km | |
| May 1964 | 31 | e | 12:02:41 |
| June 1964 | 1 | eP | 14:56:07 |
| | | eS | 20 |
| | | Distance 105 km | |
| | | eP | 21:27:01 |
| | | eS | 49 |
| | | Distance 435 km | |
| | 2 | eP | 01:10:31 |
| | | eS | 45 |
| | | Distance 115 km | |
| | | eP | 01:11:40 |
| | | eS | 49 |
| | | Distance 75 km | |
| | | eP | 01:45:49 |
| | | eS | 57 |
| | | Distance 75 km | |
| | | eP | 02:27:14 |
| | | eS | 20 |
| | | Distance 50 km | |
| | 7 | e? | 20:11:18 |
| | | iP | 25 |
| | | eS | 12:11 |
| | | Distance 415 km | |

L. Cabello
Seismologist

## PROVISIONAL READINGS AT CONCEPCION

| | | | |
|---|---|---|---|
| May 1964 | 28 | iP | 09:33:35 |
| | | iS | 39 |
| | | Distance 35 km | |
| June 1964 | 2 | eP | 08:07:02.5 |
| | 3 | eP | 15:08:10.2 |
| | 5 | eP | 15:55:31 |
| | | eS | 43 |
| | | Distance 100 km | |
| | 6 | eP | 21:56:21 |
| | 7 | eP | 20:12:22.5 |
| | | eS | 14:12 |
| | | Distance 1000 km | |
| June 1964 | 8 | eP | 07:31:21.5 |
| | | eP | 11:55:24 |
| | | eS | 32 |
| | | Distance 70 km | |
| | 11 | eP | 04:57:12.6 |
| | | eS | 18 |
| | | Distance 45 km | |
| | 12 | i(P) | 23:57:07.8 |
| | 15 | eP | 14:28:36.5 |
| | 16 | e(P) | 04:22:-- |
| | | Distant shock | |

A. Sickinger
Seismologist

## BASE G.G.V. ANTARCTICA.

May 1964 31 eL 01:14:43
Heavy microseisms from June 2 on. Reading impossible.

P. Vera
Seismologist

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PROVISIONAL READINGS AT ANTOFAGASTA

May 1964

29 eP 17:53:14
iS 31.8
Distance about 150 km

30 iP 01:37:46.8
iS 52.2
Dilatation from SW
Distance 40 km
Small local

eP 08:53:39
Small local

iP 09:57:19.9
iS 36.0
Dilatation from NE
Distance 130 km

ePKP 14:50:29
i 33
eSKKS 15:00:48
eSS 13.0
eG 32.4
eR 40.1

iP 18:53:25.6
eS 54:02.0
Compression
Distance 320 km

iP 19:25:49.4
local

iP 20:05:51.1
iS 57.3
Compression from W
Distance 50 km
Small local

iP 22:59:09.0
eS 43.7
Compression
Distance 300 km

31 i(P) 01:00:05.8
Compression
Further phases unreadable.

iP 06:50:19.6
eS 51:00.8
Compression
Distance 370 km

eP 16:44:29
eS 53
Distance about 200 km

May 1964

31 iP 17:44:57.7
iS 45:36.5
Compression from E
Distance 340 km

iP 21:16:53.2
iS 58.4
Dilatation from SW
Distance 40 km
Small local

iP 21:39:01.9
iS 37.9
Compression from E
Distance 320 km

June 1964

1 iP 05:28:43.0
iS 29:19.2
Compression from E
Distance 320 km

iP 05:39:28.8
iS 40:05
Distance about 320 km

eP 15:49:04.3
iS 18.7
Distance 110 km

eP 21:27:11.4
i 12.9

eP 23:20:36
eS 21:00
i 02.0
Distance about 190 km

2 eP 02:40:54
local

iP 09:22:09.8
eS 45.4
Compression
Distance 310 km

eP 11:54:34
eS 55:26.1
Distance about 460 km

eP 16:51:20
local

Readings difficulted by heavy microseisms from June 3 to June 5.

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PROVISIONAL READINGS AT ANTOFAGASTA

June 1964

3 eP 10:27:59.5
i 28:01.9
iS 38
Distance about 340 km

4 iP 07:31:21.2
eS 32:00.4
Dilatation
Distance 340 km

iP 09:04:50.4
eS 05:22
Compression
Distance about 340 km

No records from June 4 at 12:30 to June 5 at 19:30 on account of power failure.

6 iP 09:00:39
eS 01:17
Compression
Distance about 340 km

iP 14:49:02.6
eS 16.3
Compression
Distance 110 km

eP 19:15:24.0
e(PP) 16:51
eS 21:25
eG 24.2
eR 26:17
Distance 40°
Magnitude 5½-5 3/4

7 ePKP 15:09:20

iP 17:43:56.6
iS 44:34.8
Compression from ESE
Distance 340 km

iP 20:12:00.2
i(S) 13:19
Dilatation from SSE
Distance 740 km

8 iP 00:53:59.0
iS 54:06.1
Distance 60 km
Small local
Compression

June 1964

8 iP 07:58:43.8
iS 53.7
Compression from S
Distance 80 km

iPKP 23:12:44.6
Dilatation

9 iP 00:35:06.4
i(S) 37

e(G) 04:36.8
e(R) 38.1

eP 06:55:02
iS 27.9
Distance 220 km

9

eP 16:32:19.7
i(S) 37

ANT

eP 18:21:34

eP 21:13:58
eS 14:35
Distance 330 km

eP 23:55:16
eS 37.2
Distance about 170 km

10 iP 18:01:06.2
iS 32.5
Compression from ESE
Distance 220 km

eP 09:35:02
i 05.8
eS 36:20
Distance about 730 km

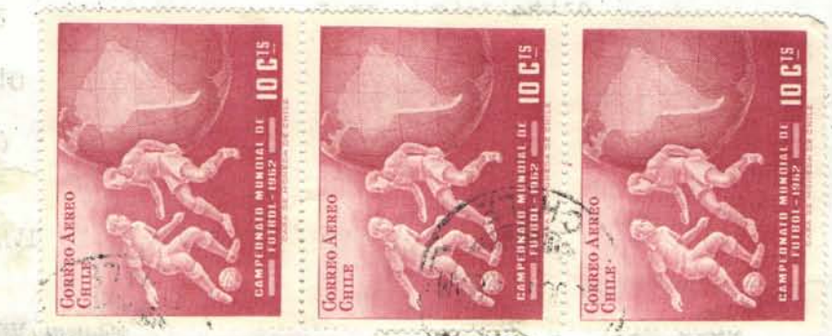
eP 18:09:28.5
eS 10:14.5
Compression
Distance 420 km

iP 21:32:57.6
iS 33:18
Compression from ENE
Distance about 160 km

iPKP 22:36:24
i 35.2
ePP 40:22
eSS 23:00:06
e(L) 16:51
eR 27.1
Compression

J. Frez
Seismologist

INTERNATIONAL SEISMOLOGICAL SUMMARY
KEW OBSERVATORY
RICHMOND, SURREY, INGLATERRA.

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PROVISIONAL READINGS AT SANTIAGO
(Santa Lucia)

June 18 1964

e(P) 00:31:00
eS 16
Small

eP 02:21:29
eS 40.3
Distance 100 km
Small

eP 04:10:46.4
eS 11:09.2
Distance 110 km
Small

e 10:23:39.5
Small

eP 18:31:08
eS 30.5
Distance 200 km
Small

iP 20:35:28
eS 36:43
eR 37:11
Distance 750 km
Depth about 50 km
SH 25,5 u, 8 sec.
MH 57,5 u,14 sec.
Magnitude about 5 3/4

19 Readings difficulted by microseisms.

e 02:34:17.5
Small

e(P) 11:15:09.5
Small

eP 15:08:19.5
e(S) 10:02

eP 16:57:20
e(S) 30
Small

eP 20:03:55
Small

20 iP 21:34:17.5
eS 37.4
Distance 180 km

June 21 1964

iP 08:38:02.5
iS 26.7
Distance 220 km

iP 15:40:40.6
eS 41:09
Distance 260 km

eP 22:17:29
eS 44.5
Distance 130 km

22 iP 00:34:46.8
eS 35:03.3
Distance 130 km

iP 05:32:22.5
eS 34
Distance 90 km
Compression

iP 05:54:06
eS 18
Distance 100 km
Small

iP 08:22:08,9
eS 21
Distance 100 km
Compression

iP 17:38:58,6

e(P) 20:32:46
eS 57.7

23 iPKP 01:46:19.7
e(SKKS) 57:04
eSS 02:09:05
eSSS 14:37
eG 27:36
eR 36:02
Distance about 152,5°
Depth about 100 km

iP 08:01:29.5
eS 56
Distance 240 km

eP 19:18:26.8
eS 42.2
Distance 130 km

e(P) 20:12:08.8
eS 27.7
Small

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## PROVISIONAL READINGS AT SANTIAGO
(Santa Lucía)

June 24 1964
iP 05:56:17.6
eS 37
Distance 160 km

25 NOTHING

26 No records from SP seismograph.
eP 22:08:07.2
eS 28
Distance 190 km
Small

27 eP 10:05:52.2
eS 06:12.8
Distance 190 km
Small

eP 17:21:35.8
Small

28 e(P) 00:27:00
eS 21.8

eP 06:00:10
eS 15.5
Distance 30 km
Small local

eP 13:14:18
ePPP 21:30
eSS 34:52
eG 48:35
eR 51:42
Distance about 116°
MZ 3,7 u, 20 sec.
Doubtful!

eP 16:55:26.2
eS 56:04.7
Distance 360 km
Small

June 28 1964
ePPP 17:33:50
e(SKS) 38:02
e(SS) 44:08
eG 51:10
MH 15,8 u, 18 sec.
MZ 7,3 u, 16 sec.
Doubtful!

eP 19:04:23.5
eS 58.7
Distance 330 km
Small

29 iP 11:32:38.2
eS 33:19
Distance 390 km

30 Record only from LP and SP Vertical Component.

iP 03:50:52
eS 51:10.6
Distance 170 km
Small local

e(P) 13:38:11.5
eS 30
Small

eP 14:05:57
Pz 7,7 u, 5 sec.
MZ 13,4 u,22 sec.

iP 16:24:26
eS 41.5
Distance 130 km
Felt III at Santiago.

eP 18:23:26.3
eS 35.8
Distance 80 km
Small

P. Welkner
Seismologist

## PROVISIONAL READINGS AT COPIAPO

June 13 1964
eP 07:42:47
eS 43:16
Distance 240 km

eP 20:57:02
eS 05
Distance 25 km

June 14 1964
e 05:46:29

18 e 05:27:00

eP 11:58:45
eS 48
Distance 25 km

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PROVISIONAL READINGS AT ANTOFAGASTA

June 11 1964
iP 03:24:37.5
iS 25:13.2
Dilatation
Distance 310 km

eP 05:40:22
eS 58
Distance about 320 km

iP 20:44:39.0
i(S) 45.4
Dilatation
Small local

12 NOTHING

13 Station stopped several times from June 13 at 03:45 to June 15 at 14:30 GMT on account of power failure. Readingaccuracy reduced to 1.0 sec. during this period.

14 iP 02:20:08
iS 17
Compression from SW
Distance 80 km

iP 07:54:01
iS 39
Compression from ESE
Distance 330 km

eP 23:34:14
eS 51
Distance about 330 km

15 e(PKP) 00:25:32

iP 05:38:56
eS 39:35
Dilatation
Distance 350 km approx.

iP 17:55:36.0
i(S) 45.8
i 50.2
Compression

16 ePKP 04:21:32.3
i 33.3
i 24:21
ePP 25.2
eSKKS 32:22
eSS 44.7
eSSS 49:--
eG 05:01:--
eR 10:--
Compression

June 16 1964
Reading difficulted by large amplitudes. LPZ unreadable. Several aftershocks recorded on SP instruments.

e(PKP) 04:37:32.0
i 32.8

iPKP 05:06:28.7
Dilatation

iPKP 05:18:38.5
Dilatation

iPKP 05:42:03.8
Dilatation

iPKP 05:59:15.2
Dilatation

eP 05:54:31.3
eS 55:05.0
Dilatation?
Distance 290 km

iPKP 06:06:29.9
Dilatation

iPKP 06:37:01.3
Dilatation

iPKP 07:13:00.3
Dilatation

eP 07:30:23.6
eS 31:15.0
Distance about 470 km
MZ 0.8 u, 0.5 sec.

iPKP 07:34:50.8
Compression

i(PKP) 07:37:15.2
Dilatation

iPKP 09:30:14.3
Dilatation

eP 11:16:50
eS 17:54
Distance about 600 km

eP 17:59:34.1
eS 53
Distance about 150 km

iP 19:38:32.9
iS 39.3
Compression from NE
Distance 50 km
Small local

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PROVISIONAL READINGS AT ANTOFAGASTA

June 16 iP 20:41:29.2
1964 eS 51
Compression from N
Distance about 180 km

17 eP 01:56:55.5
iS 17.6
Distance 180 km

iP 06:32:30.4
eS 33:16
Dilatation from E
Distance about 420 km

eP 07:37:27.7
eS 38:04.4
Dilatation from E
Distance 320 km

17 e(P) 12:18:54 ANT
local

ePKP 15:30:36.6
Compression

iP 17:14:49.5
iS 15:25.2
Compression from E
Distance 310 km

eP 20:16:41.4
eS 17:15.9
Distance 300 km

18 eP 01:26:45.0
eS 27:21.1
Distance 320 km

e(PKP) 06:18:13.5

iP 11:17:38.6
iS 46.4
Compression
Distance 60 km
Small local

eP 11:59:20
eS 12:00:01
Distance about 370 km

iP 12:17:15.5
iS 20.3
Compression
Distance 40 km
Small local

eP 20:12:32

June 18 eP 20:37:35.7
1964 i 40.5
i 43.0
e 40:26
e(R) 43:37
Deep focus?

19 e(P) 02:27:41
iS 28:06.7

e(P) 08:11:05
e(S) 43

iP 08:48:24.3
iS 44
Compression
Distance about 160 km

eP 09:23:22.4
iS 58.1
Distance 310 km

iPKP 10:25:28.0
Compression

iP 15:06:35.8
iS 52
Dilatation from SE
Distance 130 km

iP 19:54:06.8
iS 13.1
Compression from NE
Distance 50 km
Small local

eP 21:33:56.4
iS 34:16.3
Distance 160 km

20 iP 02:27:42.2
eS 28:20.3
Compression from E
Distance 340 km

eP 19:58:53
eS 59:19
Distance about 220 km

ePKP 17:18:52

eP 23:48:03.5
e(S) 26

21 eP 02:46:50.3
eS 47:30.8
Distance 360 km

eP 06:56:50
e(S) 58:24

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PROVISIONAL READINGS AT COPIAPO

June 18 eP 17:53:22
1964 eS 28
Distance 50 km

19 eP 15:06:54
eS 07:23
Distance 240 km

June 22 eP 22:42:43
1964 eS 57
Distance 115 km

L. Cabello
Seismologist

PROVISIONAL READINGS AT CONCEPCION

June 18 eP 20:34:37
1964 eS 35:10
Distance 290 km

A. Trautmann
Seismologist

ANTARCTIC STATIONS

GABRIEL GONZALEZ VIDELA

June 15 eL 01:02:23
1964

16 e(PKP) 04:21:44
e(PKS) 24:05
MH about 10 u, 26 sec.

22 eL 00:59.3

23 iPKP 01:46:35
i(SKS) 50:15
e(R) 02:36:30

O'Higgins

June 16 e(PKP) 04:21:48
1964

P. Vera
Seismologist

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Santiago, Chile.

PROVISIONAL READINGS AT ANTOFAGASTA

June 21 1964
eP 15:41:53
e(S) 43:23.5
i(R) 31.1

eP 17:59:20
eS 55.0
Distance about 210 km

eP 18:26:35.2
eS 27:14.1
Distance 350 km

eP 23:03:59
iS 04:16
Distance about 140 km

22 e 00:42.8
e(SS) 47.5
eR 59:33

eP 01:18:35.4
eS 46.3
Small local
Distance 90 km

eR 03:59.3

No records from 13:10 to 23:20 GMT.

23 ePKP 01:46:04
i 05.0
eSS 02:07:48
eSSS 13.5
eG 26.7
Compression
Deep focus. LPZ unreadable

iPKP 02:09:43.4
Dilatation

iP 03:38:09.5
iS 26.2
Compression
Distance 130 km

iP 15:35:40.1
iS 36:20.4
Compression from E
Distance 360 km

eP 18:08:46.2
eS 09:04
Distance about 150 km

24 Reading difficulted by microseisms on June 24 and 25.

June 24 1964
iP 17:11:16.7
iS 42.3
Compression
Distance 210 km

eP 18:01:31
eS 02:58
Distance about 230 km

25 iP 11:48:43.3
iS 50:04
Dilatation from NE
Distance about 170 km
MZ 0.3 u, 0.8 sec.

No records on LPZ from June 25 at 13:00 to June 26 at 13:00 GMT.

eP 14:20:36
eS 21:12
Distance about 320 km

eP 20:24:15
e(S) 25:22

eP 21:47:51.0
eS 48:30.9
Distance 360 km

26 eP 05:38:43.3
iS 39:06.4
Distance 190 km

No records on SPZ from June 26 at 13:00 to June 30 at 13:30 GMT.

eP 16:12:41.9
iS 13:09.8
Distance 240 km

eP 22:25:49.4
iS 26:29.4
Distance 360 km

27 iP 00:17:17.9
iS 24.1
Distance 50 km

eP 06:49:07
eS 43
Distance about 320 km

eP 17:21:19.7
e(S) 22:15

28 eP 00:55:56.5
e(S) 56:29
i 31

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PROVISIONAL READINGS AT ANTOFAGASTA.

June 28 1964

iP 02:51:38.9
iS 46
Compression from SE
Distance about 60 km

eP 05:58:58.8
iS 59:10
Distance about 90 km

eP 06:14:08.0
iS 27.9
Distance 160 km

e 13:14.5
eSS 31.0
eG 46.7
eR 54.7

iP 15:44:44.9
iS 54
Dilatation from EES
Distance about 70 km

e(P) 17:36:25
eS 43:11
eSS 46:30
e 46.7
eR 49:52
Distance about 47°
Superimposed to another distant shock.

eP 19:20:56.4
eS 21:32
i 33
Distance about 320 km

eP 21:13:10
local

June 28 1964

eP 22:20:22
eS 45
Distance about 190 km

29 iP 03:54:55.6
iS 55:36.1
Distance 360 km

eP 05:01:21
eS 58
Distance about 330 km

eP 06:12:09
eS 48
Distance about 350 km

eP 12:40:14.3
iS 43.1
Distance 250 km

eP 16:58:55.3
e(S) 17:00:20.3

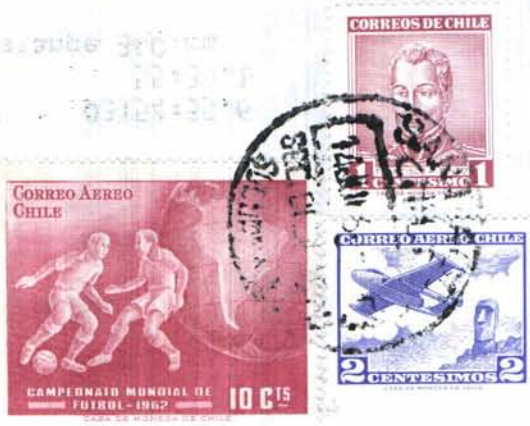
30 eP 02:23:50.7
eS 24:33.0
Distance 380 km.

eP 02:34:43
eS 35:19.5
Distance about 330 km

iP 11:29:07.1
iS 30
Compression from EES
Distance about 190 km

J. Frez
Seismologist

INTERNATIONAL SEISMOLOGICAL SUMMARY
KEW OBSERVATORY
RICHMOND, SURREY, INGLATERRA.



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# PROVISIONAL READINGS AT SANTIAGO
(Santa Lucía)

July 1964

1 eP 08:56:38.6
eS 57:11.7
Distance 310 km

eP 19:23:51.5

eP 20:24:22
eS 25:12
Distance 480 km

eP 22:53:37.8
eS 57:02
Distance 20°
PZ 2,6 u, 6 sec.

eP 23:49:29.2
eS 54
Small

2 eP 01:25:45.8
eS 26:02.6
Distance 140 km
Small local

e(P) 05:57:02
eS 58:17.5
Distance 140 km
Small local

eP 16:37:07.5
eS 36.5
Distance 270 km
Small

eP 22:53:10.8
eS 54:26
Distance 740 km

3 e(S) 22:54:36.5

4 eP 18:20:03.5
eS 37
Distance 320 km
Small

5 eP 13:12:05.7
eS 18.8
Distance 110 km
Small local

eP 17:47:35
eS 46.3
Distance 90 km
Small local

July 1964

5 eP 19:19:16
eS 28:24
e 30:18
e(SS) 32:56
eSSS 36:08
G 37:44
R 40.0
Distance 71°
MH 14,6 u, 13 sec.
Magnitude about 6.0

eP 21:10:16.3
eS 39.3
Distance 210 km
Small

eP 21:24:32
eS 50.6
Distance 170 km
Small

eP 23:55:40
Distant shock
Further phases lost during change of papers

6 eS 02:34:54
eSS 40:26
eSSS 42:44
eG 44:26
Distance about 71°
MH 24.6 u, 17 sec.
Magnitude 6 1/4 approx.

iP 07:32:03
i 32:20
iS 40:03
e 43:30
eG 46.8
eR 49.4
Dilatation
Distance 59°
MZ 60 u, 18 sec
MH 100u, 18 sec.
Magnitude 7.0

eP 08:45:39.2
eS 54.5
Distance 130 km
Small

eP 14:08:21.5
eS 10:04
Distance 1000 km

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# PROVISIONAL READINGS AT SANTIAGO
(Santa Lucía)

July 1964

6 eP 18:56:07.4
eS 0
Distance 110 km
Small

Readings difficulted by microseisms from July 7 to July 12.

7 eP 08:07:59.2
eS 08:32
Distance 310 km
Small

eP 10:36:34.3
eS 37:03.5
Distance 270 km
Small

e! 14:31:25

eP 18:59:56.5
eS 19:00:17.5
Distance 190 km
Small

8 eP 09:44:41.5
eS 45:36
Distance 520 km

e(P) 12:14:37

i(P) 12:17:56
ePPP 24:03
eS 29:12
e(SSS) 40.0
e(R) 49.7
Distance about 98°
Same shock as precedent ?

9 S 11:45:16
SS 51:08
R 12:02:26

eP 14:48:33.5
eS 49:08
Distance 320 km
Small

eP 16:53:52
ePP 58:04
e(S) 17:06:34
eSS 13:49
eG 21:09
eR 28:55
Compression
MZ 47.8 u, 32 sec.
Doubtful!

July 1964

9 eP 21:11:13
e(S) 12:12.8

10 eP 05:29:51.2
eS 30:12
Distance 190 km

iP 06:00:48.8
i! 01:05.7
Distance 150 km
Small

iP 06:49:38
i 41.5
e 52
near explosions?

e(P) 11:08:22
eS 59
Small

11 eP 03:26:06.5
eS 36.5
Distance 280 km
Small

eP 05:45:18.5
e! 27.5
i! 37
near explosions?

12 iP 03:06:46.5
iS 57
Distance 90 km
Small

eP 03:33:28.5
eS 48
Distance 100 km

eP 13:29:43
eS 30.0
Small

eP 14:52:21
eS 42.5
Distance 130 km
Small

13 eP 04:00:39.5
eS 59
Distance 100 km
Small

P. Welkner
Seismologist

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PROVISIONAL READINGS AT COPIAPO

| | | | |
|---|---|---|---|
| June 27 1964 | eP | 17:20:54 | |
| | eS | 21:32 | |
| | Distance 340 km | | |
| 28 | eP | 02:52:18 | |
| | eS | 53:09 | |
| | Distance 465 km | | |
| June 29 | eP | 11:32:33 | |
| | eS | 50 | |
| | Distance 140 km | | |
| | e(S) | 12:40:28 | |
| July 1 1964 | e(S) | 20:24:42 | |
| | eL | 25:11 | |

L. Cabello
Seismologist

PROVISIONAL READINGS AT CONCEPCION

| | | | |
|---|---|---|---|
| June 16 1964 | eP | 07:54:09 | |
| 17 | eP | 01:06:31 | |
| | eP | 03:43:07 | |
| | eP | 06:42:50.5 | |
| | iS | 53.5 | |
| | Distance 25 km | | |
| | eP | 06:43:05.8 | |
| | iS | 09.5 | |
| | Distance 30 km | | |
| June 18 1964 | eP | 20:34:37 | |
| | eS | 35:10 | |
| | Distance 290 km | | |
| 26 | eP | 12:44:07.6 | |
| | eS | 25 | |
| | Distance 140 km | | |
| July 6 1964 | eP | 07:32:-- | |
| | Distant shock! | | |
| 8 | eP | 20:43:37.5 | |
| | eS | 44.5 | |
| | Distance 55 km | | |

A. Sickinger
Seismologist

PROVISIONAL READINGS AT G. GONZALEZ VIDELA (ANTARCTICA).

| | | |
|---|---|---|
| June 30 1964 | eL | 14:45:-- |
| July 6 1964 | iP | 07:34:52.5 |
| | e | 37:50.5 |
| | e | 39:44.4 |
| | e(SKS) | 45:20.1 |
| | e(S) | 47.5 |
| | eSS | 51:50.5 |
| | e(SSS) | 55:05 |
| | eG | 58:45 |

P. Vera
Seismologist

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PROVISIONAL READINGS AT ANTOFAGASTA

June 30 1964
e(PKP) 14:06:12.1
e 14.2
i 21.9
eSS 29.6
eSSS 34.9
eG 49.0

eP 15:24:25.0
eS 42.2
Compression
Distance 140 km

e(P) 16:26:22
i 23.7
e(S) 28:05

eP 19:14:17.3
eS 27
Distance about 80 km

e(PKP) 20:07:12
e 19

iPKP 20:27:19.1
e 28:55

eP 20:52:28.0
eS 57
Distance 250 km

iP 23:55:36.6
iS 40.8
Dilatation
Distance 30 km
Small Local

July 1 1964
iP 02:08:40.4
iS 09:18.9
Dilatation from SE
Distance 340 km

eP 02:28:24.7
eS 29:10.6
Dilatation from E
Distance 420 km

eP 03:21:18
iS 29.8
Distance about 100 km

eP 05:38:30.9
eS 47
Distance about 130 km

eP 08:21:24
iS 36.2
Distance about 100 km

July 1 1964
iP 19:40:46.6
i(S) 12.5
Dilatation

iP 20:22:14
iS 23:15
Compression from NNE
Distance about 90 km

No records from SP.Z from July 1 at 21:00 to July 2 at 13:30 GMT.

eP 22:51:32.1
e(S) 53:08
i 17
Two shocks?

2 eP 03:33:41
eS 34:19
Distance about 340 km

eP 08:20:41
eS 15.4
Distance about 300 km

3 eP 02:30:21.9
i(S) 52.3

iP 10:25:38.3
iS 26:13.9
Compression from E
Distance 310 km

eP 23:30:23.7
eS 38.8
Dilatation from N
Distance 120 km

4 eP 00:02:27.7
eS 03:06
Dilatation?
Distance about 340 km

eP 00:52:25.4
eS 37.7
i 38.5
Distance 100 km

iP 03:58:48.9
eS 59:28.4
Compression from N?
Distance 350 km

iP 08:23:27.4
iS 33.0
Dilatation from SW
Distance 50 km

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PROVISIONAL READINGS AT ANTOFAGASTA

July 1964

6 iP 07:31:04.8
iS 38:22
Dilatation from NW
PZ 0.94 u, 1.4 sec.
Magnitude 6.5
Distance 52°

eP 08:24:32
i 38.4
e(S) 25:22

eP 10:28:34.5
eS 29:06.3
Dilatation?
Distance 270 km

i(PKP) 10:33:11.1
Dilatation

iP 14:06:53.7
iS 07:14
Dilatation from SE
Distance about 160 km
FELT III at Antofagasta

i(P) 14:54:10.0
Compression from SE

iP 20:01:20
eS 47
Dilatation
Distance about 230 km

iP 20:19:09.9
iS 37.7
Dilatation from N
Distance 230 km

Heavy microseisms from July 7 to July 11.

7 eP 22:36:49.5
eS 37:25.5
Distance 320 km

8 iP 03:45:34.7
eS 46:16
Dilatation
Distance about 370 km

July 1964

8 i(PKP) 12:14:58.4
iPP 18:16
eSKKS 24:45
eSS 36:50
eSSS 42:26
eG 54.0
eR 13:00.0
Compression from SW?
Distance 145°
Two shocks?

eP 12:49:45.8
iS 59.5
Distance 110 km

iP 19:53:51
iS 54:02
Dilatation from NW
Distance about 90 km

9 iP 06:27:59
iS 28:36
Compression
Distance 30 km

eSKS 11:45:51
eS 46:29
ePS 47:44
eSS 52.8
eG 12:00.0
eR 04.8
Doubtful!

iP 12:57:54.8
iS 59.1
Dilatation
Distance 30 km
Small local

iP 15:33:41.6
iS 34:07.0
Dilatation from E
Distance 210 km

J. Frez
Seismologist

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PROVISIONAL READINGS AT ANTOFAGASTA

July 1964

4 iPKP 11:09:02.8
Dilatation

eP 11:26:41.1
eS 27:28.8
Dilatation
Distance 430 km

iP 12:15:21.9
iS 16:37
Dilatation from N
Distance about 120 km

iP 14:00:04.3
iS 55.8
Compression from E
Distance 480 km
PZ 0.14 u, 10 sec.
Deep focus

e(P) 14:27:37.3
eS 28:05.7

eP 16:39:36.2
eS 49.1
Distance 110 km

eP 17:17:59
e(S) 18:46

eP 17:49:53.2
eS 50:16.4
Distance 190 km

eP 21:22:27.0
iS 54
Compression
Distance about 230 km

eP 23:28:22.1
iS 42
Compression
Distance about 160 km

5 eP 02:19:22.3
i 22.7
eS 20:01.9
i 02.6
Compression
Distance 350 km

eP 05:57:29
iS 33.4
Distance about 30 km
Small local

July 1964

5 eP 08:29:47.8
iS 51.8
Compression
Distance 30 km
Small local

eP 09:36:29
eS 37:02
Distance about 290 km

eP 11:39:28
eS 42
i 46
Distance about 110 km

eP 12:52:37
eS 53:00.2
Distance about 190 km

eP 13:48:29.8
iS 44.8
Compression
Distance 120 km

eP 14:01:15.0
eS 47.5
Dilatation
Distance 280 km

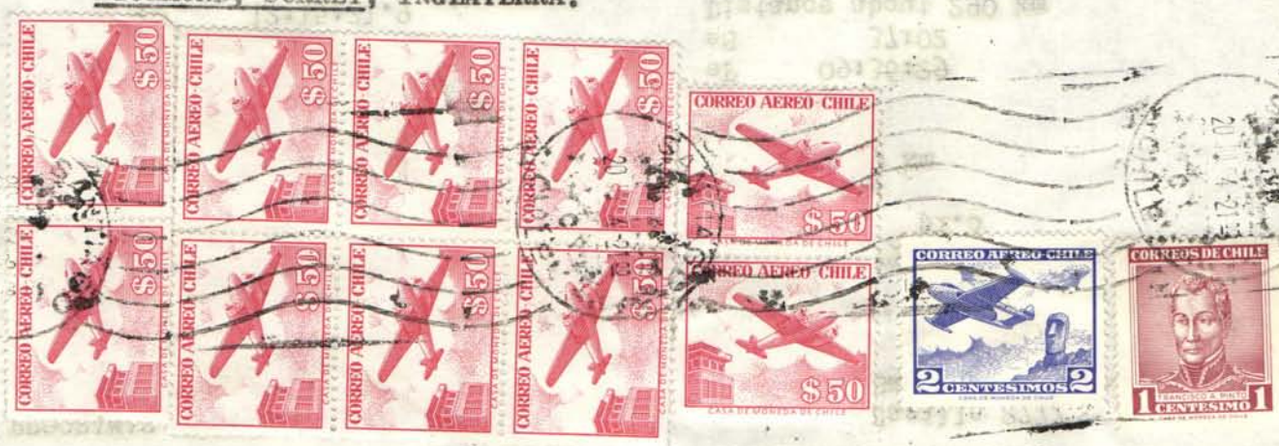
iP 18:08:42.2
iS 54.5
Compression from E
Distance 100 km
Small local

eP 18:11:27
iS 36.0
Distance about 70 km
Small local

eP 19:18:25
i 26.1
eS 26:54
eSS 31:00
eG 33.9
eR 37.0
i 38:07
Distance 64°
PZ 0.08 u, 11 sec.
Magnitude 5½-6

6 eP 02:25:02
i 25.3
eS 33:34
eSS 37.8
eG 40:44
eR 43.7
i 44:44
Distance 64°
PZ 0.16 u, 1.1 sec. Mag. 5 3/4-6 1/4

INTERNATIONAL SEISMOLOGICAL SUMMARY
KEW OBSERVATORY
RICHMOND, SURREY, INGLATERRA.



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# PROVISIONAL READINGS AT SANTIAGO
(Santa Lucía)

Jul. 14 1964

| | | |
|---|---|---|
| | eP | 02:57:22,5 |
| | e(S) | 58:09 |
| | iP | 08:02:12.5 |
| | e(S) | 41 |
| | eP | 10:07:16.7 |
| | eS | 39 |
| | Distance 200 km | |
| | iP | 16:43:32.5 |
| | iS | 45 |
| | Distance 100 km | |
| | eP | 22:47:33 |
| | eS | 52 |
| | Distance 170 km | |
| 15 | iP | 07:25:53.3 |
| | eS | 26:10.5 |
| | Distance 150 km | |
| | Small | |
| | eP | 07:57:20 |
| | eS | 36.3 |
| | Distance 140 km | |
| | Small | |
| | eP | 12:29:16.7 |
| | eS | 40.5 |
| | Distance 220 km | |
| | Small | |
| 16 | iP | 23:52:53.5 |
| | eS | 53:08.5 |
| | Distance 130 km | |
| | Small | |
| 17 | eP | 02:59:47.5 |
| | Small | |
| | e(SKS) | 03:02:40 |
| | e | 09:02 |
| | eG | 24.7 |
| | eR | 28.5 |
| | iP | 17:50:18.8 |
| | eS | 40 |
| | Distance 190 km | |
| 18 | e | 07:00:06 |
| | eP | 13:09:-- |
| | eS | 26 |

Jul. 18 1964

| | | |
|---|---|---|
| | eP | 17:46:42.5 |
| | eS | 47:02 |
| | Distance 180 km | |
| | Small | |
| | eP | 18:25:18 |
| | Small | |
| | eP | 23:30:52.8 |
| | eS | 31:28 |
| | Distance 330 km | |
| 19 | eP | 00:49:45 |
| | eS | 50:12.5 |
| | Distance 250 km | |
| | Small | |
| 20 | eP | 10:21:47.5 |
| | eS | 22:24.3 |
| | Distance 350 km | |
| | eP | 13:24:06 |
| | eS | 30 |
| | Distance 220 km | |
| 21 | e(P) | 04:01:30.5 |
| | Distant shock? | |
| | eP | 07:36:27 |
| | iS | 39:42.4 |
| | e | 48.5 |
| | Distance about 19° | |
| | eP | 10:23:20.7 |
| | eS | 24:17 |
| | Distance 550 km | |
| 22 | e | 07:41:38 |
| | eP | 08:20:30 |
| | eS | 21:11.9 |
| | Distance 400 km | |
| | eP | 15:33:43.5 |
| | eS | 56.4 |
| | Distance 110 km | |
| | Small | |
| 23 | iP | 01:54:21.4 |
| | eS | 55:24 |
| | Distance 710 km | |
| | Dilatation | |
| | iP | 07:28:15.7 |
| | eS | 25.7 |
| | Distance 80 km | |
| | Small local | |

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# PROVISIONAL READINGS AT SANTIAGO
(Santa Lucía)

Jul. 23 1964

e(P) 09:19:02.5
Distant shock?

e 09:53:30
eL 10:10.0

e(P) 10:39:33.5
eS 44
Small local

eP 13:55:53
eS 56:07
Distance 120 km
Small local

iP 19:20:33.6
iS 21:28
Distance 520 km

24 e(P) 00:44:02
eS 16

e 01:07:06

eP 02:21:48
e(S) 22:17

ePKP 07:10:24
eSKKS 20:32
e(SP) 23:50
eSS 32:28
e(SSP) 33:27
e(SSS) 37:34
eG 49.2
eR 57.0
Distance about 142°
MH 14.8 u, 18 sec.
Magnitude about 6.5

eP 08:05:55
eS 06:14.5
Distance 170 km
Small

ePKP 08:32:10.5
ePKS 35:52.5
e(SKS) 39:30
eSKKS 42:17
eSS 54:16
eSSS 59:36
eG 09:11.6
eR 19.0
Distance 142°
MH 61.2 u, 20 sec.
Magnitude about 7.0
Superimposed to precedent shock.

Jul. 24 1964

eR 14:32.0

ePKP 17:22:22
ePP 25:40
eSKKS 32:28
eSS 44:20
eSSP 45:02
e(G) 18:00.4
e(R) 06.9
Distance 142°
MH 16.1 u, 21 sec.
Magnitude about 6.5

25 eP 07:53:48
eS 54:20.5
Distance 300 km
Small

iP 08:14:03
eS 24
Distance 190 km

iP 09:23:15.3
eS 29
Distance 120 km

eP 10:06:50.5
eS 07:22
Distance 290 km
Small

eP 17:06:15
e(S) 31
Small

iP 19:32:30.4
iS 33:42
Distance 700 km
PZ 21.8 u, 4 sec.
Magnitude about 6
FELT IV at Copiapó and Vallenar

26 eP 00:13:55.5
eS 14:05.5
Distance 80 km
Small local

eP 00:42:23
eS 35
Distance 100 km

e(P) 01:22:34

eP 14:22:34.5
eS 23:49
Distance 720 km

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# PROVISIONAL READINGS AT SANTIAGO
(Santa Lucía)

Jul. 27 1964

| | | |
|---|---|---|
| | eP | 00:27:02.5 |
| | eP | 04:05:17.3 |
| | eS | 56 |
| | Distance 350 km | |
| | eP | 12:55:20.7 |
| | eS | 44.5 |
| | Distance 220 km | |
| | Small | |
| 28 | iP | 05:27:37.8 |
| | iS | 49 |
| | Dilatation | |
| | Distance 90 km | |
| | eP | 06:35:29.3 |
| | eS | 36:44.5 |
| | Distance 730 km | |
| | iP | 09:00:13 |
| | iS | 24 |
| | Dilatation | |
| | Distance 90 km | |
| | e(P) | 09:52:55 |
| | eS | 53:26.5 |
| | eS | 19:03:38 |
| | e(PPS) | 05:30 |
| | e | 12:33 |
| | eG | 16:44 |
| | e(R) | 22:36 |
| | Doubtful! | |
| | ePKP | 21:58:39 |
| | epPKP | 59:14 |
| | e(SS) | 22:22:36 |
| | eSSP | 24:12 |
| | Doubtful! | |
| 29 | eP | 00:17:54.7 |
| | eS | 18:24.5 |
| | Distance 280 km | |
| | eP | 01:54:46.2 |
| | eS | 55:04 |
| | Distance 160 km | |
| | eP | 13:19:47.9 |
| | eS | 57.5 |
| | Distance 80 km | |
| | Small | |
| | eP | 21:07:08.5 |
| | eS | 08:06.5 |
| | Distance 560 km | |

Jul. 30 1964

| | | |
|---|---|---|
| | eP | 05:24:40 |
| | eS | 31:14 |
| | eG | 34:52 |
| | eR | 37:35 |
| | Distance about 45° | |
| | eP | 06:32:49.8 |
| | eS | 33:-- |
| | eP | 06:40:36.6 |
| | eS | 41:09.3 |
| | Distance 210 km | |
| 31 | eP | 05:45:04.5 |
| | e | 06:11:15 |
| | eSKS | 06:13:26 |
| | eSS | 19:58 |
| | eSSS | 22:33 |
| | eR | 29:34 |
| | Distance about 90° | |

Aug. 1 1964

| | | |
|---|---|---|
| 1 | iP | 11:35:40.6 |
| | iS | 36:04 |
| | Distance 210 km | |
| | iP | 13:55:02.6 |
| | iS | 57:25 |
| | Distance 13° | |
| | iP | 18:12:11.4 |
| | eS | 30 |
| | Distance 170 km | |
| | e(P) | 22:13:22 |
| | eS | 14:52 |
| 2 | e(P) | 13:59:12.5 |
| | eS | 14:00:41 |
| | eP | 19:30:07 |
| | eS | 44 |
| | Distance 350 km | |
| | eP | 21:09:33 |
| 3 | iP | 09:52:23 |
| | iS | 39.8 |
| | Distance 150 km | |
| | Small | |
| | eP | 13:13:07 |
| | eS | 14:21 |
| | Distance 720 km | |
| | eP | 19:51:24.3 |
| | eS | 52 |
| | Distance 260 km | |

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## PROVISIONAL READINGS AT SANTIAGO
(Santa Lucía)

Aug. 1964 3 eP 23:47:16.5
eS 36.2
Distance 180 km
Small

P. Welkner
Seismologist

## PROVISIONAL READINGS AT COPIAPO

Jul. 1964 4 eP 11:18:20
eS 33
Distance 105 km

6 eP 07:31:29

eP 08:23:49
eS 56
Distance 55 km

eP 14:07:04
eS 28
Distance 200 km

8 eP 07:40:30
eS 48
Distance 145 km

eP 14:02:41
eS 53
Distance 95 km

9 eP 21:10:13
eS 27
Distance 110 km

12 eP 16:49:17
eS 50:04
Distance 390 km

14 e(S) 02:55:42

18 eP 06:59:21
eS 38
Distance 140 km

eP 10:17:34
eS 46
Distance 95 km

19 eP 23:10:34
eS 11:00
Distance 215 km

20 eP 12:37:47
eS 38:03
Distance 130 km

21 eP 10:22:49
eS 23:11
Distance 180 km

Jul. 1964 23 eP 01:53:48
eS 54:11
Distance 190 km

eP 19:19:54
eS 20:20
Distance 215 km

24 e(S) 16:40:53

25 e(S) 06:21:57

e 09:11:10

eP 18:16:47
eS 17:01
Distance 110 km

iP 19:31:(24)
FELT VI at Copiapó

eP 20:21:46
eS 56
Distance 80 km

eP 20:41:51
eS 42:01
Distance 80 km

eP 20:58:49
eS 57
Distance 65 km

26 eP 01:19:30
eS 40
Distance 80 km

eP 01:21:25
eS 35
Distance 80 km

eP 01:24:22
eS 32
Distance 80 km

eP 03:56:27
eS 37
Distance 80 km

eP 12:11:54
eS 12:02
Distance 65 km

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PROVISIONAL READINGS AT COPIAPO

| | | | | | |
|---|---|---|---|---|---|
| Jul. 26 1964 | iP | 14:21:35 | Jul. 27 1964 | iP | 00:25:38 |
| | eS | 45 | | eS | 51 |
| | Distance 80 km | | | Distance 105 km | |
| | e | 23:48:29 | | eP | 13:07:34 |
| | | | | eS | 47 |
| | | | | Distance 105 km | |

L. Cabello
Seismologist

PROVISIONAL READINGS AT CONCEPCION

| | | |
|---|---|---|
| Jul. 29 1964 | eP | 21:06:23 |
| | iS | 30 |
| | Distance 55 km | |

No records from July 15 to July 27.

A. Trautmann
Seismologist

PROVISIONAL READINGS AT GABRIEL GONZALEZ VIDELA(ANTARCTICA)

| | | | | | |
|---|---|---|---|---|---|
| Jul. 8 1964 | e(P) | 12:20:10 | Jul. 24 1964 | L | 08:05:-- |
| | e | 23:24 | | e(PKP) | 08:32:30 |
| | e | 26:09 | | eL | 09:22.6 |
| 9 | iP | 16:52:42 | | eL | 18:15.8 |
| | iPP | 55:49 | 25 | L | 19:50:-- |
| | ePPP | 57:41 | | | |
| | eS | 17:02:57 | | | |
| | eSPP | 03:56 | | | |
| | ePPS | 04:17 | | | |
| | eSS | 08:16 | | | |
| | eSSS | 11:48 | | | |
| | eQ | 13:53 | | | |
| | eG | 14:06 | | | |
| | eR | 18:12 | | | |
| | Compression from N-W? | | | | |
| | Distance 82½° | | | | |
| | Magnitude about 7 | | | | |

P. Vera
Seismologist

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# PROVISIONAL READINGS AT ANTOFAGASTA

Jul. 9 1964
iP 16:54:15
iPKP 57:53
iPP 58:48
eSKS 17:04:38
eSKKS 05:38
e(PS) 08:23
i(PPS) 59
e 14:03
eSS 14.5
i 15.1
eG 25.2
eR 30.6
Distance 114°
Magnitude about 7½

iP 17:07:44.4
iS 08:21.5
Dilatation from E.
Distance 330 km

eP 21:10:51.8
eS 11:35.6
i 35.9
Distance 400 km

10 eP 03:21:07.3
iS 31.4
Distance 200 km

eP 04:34:00.1
iS 20.4
Distance 160 km

iP 05:17:23.4
iS 27.9
Dilatation
Distance 40 km
Small local

iP 19:18:32.1
iS 52.6
Compression from N
Distance 170 km
PZ 0.15 u, 0.7 sec.

11 iP 04:43:18.4
i(S) 44:03
Compression

iP 07:40:05.0
iS 42.5
Compression from E.
Distance 330 km

iP 21:15:39.2
iS 56.5
Compression
Distance 140 km

Jul. 11 1964
eP 23:58:07.8
iS 42.3
Distance 300 km

12 eP 00:25:12.8
eS 51
Distance about 340 km

iPKP 02:05:20.7
Compression

eP 12:12:46.2
eS 13:21.7
Distance 310 km

e(P) 15:02:04.7
local

iP 16:49:14.0
iS 50
Compression from ESE
Distance about 320 km

13 eP 07:16:23
eS 53
i 59.2
Distance about 260 km

e(PKP) 17:09:11

iP 18:15:36.2
eS 13.9
Compression from E
Distance 330 km

e(P) 21:10:57

14 iP 00:11:10.6
iS 16.8
Compression from NE
Distance 50 km
Small local

eP 02:32:08
eS 44
Distance about 320 km

e(PKP) 10:03:18

Heavy microseisms from July 12 to July 17.

iP 16:36:41.7
eS 37:27.6
Compression from E
Distance 420 km

15 iP 15:59:06.7
iS 23.8
Distance 140 km

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PROVISIONAL READINGS AT ANTOFAGASTA

Jul.16 1964

iP 04:47:07.7
i(S) 30.4

iP 16:57:01
local

eP 21:00:07
iS 18.1
Distance about 140 km
Small local

17 eP 14:45:01
eS 19.0
Distance about 150 km
Small local

iP 15:46:45.4
i(S) 14.3
Dilatation

18 iP 06:50:24.2
i 32.2
iS 39.9
Dilatation from NE
Distance 130 km

eP 10:17:12
local

eP 11:14:32
iS 15:30
Distance about 660 km

iPKP 13:05:37.3
i 07.9
Compression

iP 23:13:10.7
eS 50.6
Compression from E
Distance 360 km

e(P) 23:32:20
e(S) 33:42
i 59.5

19 eP 02:53:20.2
iS 54:06.8
Distance 420 km

iPKP 06:19:36.9
Dilatation

eP 18:58:28.9
eS 59:09
Compression from ESE
Distance 350 km

Jul. 19 1964

iP 23:10:21.6
iS 39
Compression from SSE
Distance about 140 km

20 eP 03:01:49
eS 02:08
i 12.1
Distance about 150 km

iP 12:37:34.0
i(S) 55.0
Dilatation from S.

eP 17:38:19.4
iS 46.5
Dilatation
Distance 230 km

ePKP 18:59:30.3

iP 19:41:32.5
iS 42:08.7
Compression from E
Distance 320 km

21 eS 01:27:13
eSS 31.1
eG 33:29
eR 36:39

eP 07:34:16.5
i(S) 35:00
Dilatation

iP 07:44:15.8
iS 45.5
Dilatation from E
Distance 260 km

eP 10:23.6
i 23:47.1
iS 52.4

22 ePKP 01:11:01

iP 10:27:55.7
eS 33.1
i 34.6
Dilatation from E
Distance 330 km

23 eP 01:54:29.1
i 33.9
i(S) 55:58
PZ 0.06 u, 0.6 sec.
Compression

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PROVISIONAL READINGS AT ANTOFAGASTA

Jul. 23 iP 03:21:11.6
1964 eS 49.4
Compression
Distance 330 km

eP 14:34:24
i 27.4
iS 07.4
Two shocks?

iP 19:20:18.1
iS 21:15
Dilatation from SE?
Distance about 550 km

24 eP 00:47:27
i(S) 48:20.5
PZ 0.04 u, 0.6 sec.

iP 15:43:05.1
iS 11.0
Compression from SW
Distance 50 km

iP 16:51:28.2
iS 34.6
Dilatation from S
Distance 50 km

iP 17:15:15.6
iS 20.9
Dilatation from SE
Distance 40 km

ePP 17:25:45
eSKP 26:43
e 31:54
eSS 42.9
i 43:57
eSSS 47:50
eG 59:05
eR 18:06:41
Compression from NW?
Interpretation doubtful!

eP 18:24:25.5
eS 44.1
Distance 150 km

iP 22:25:17.7
iS 35
Compression from WNW
Distance about 140 km

iP 22:49:03.4
e(S) 35.2
Dilatation from NNE

25 eP 02:08:21
e(S) 49

Jul. 25 eP 05:55:38.9
1964 eS 58.6
Compression
Distance 160 km

eP 17:06:53
eS 09.3
Distance about 130 km

eP 18:17:50
e(S) 18:42
i 52

eP 18:25:39.3
iS 59.6
Distance 160 km

iP 19:13:38.0
iS 14:18.0
Compression from N
Distance 360 km

iP 19:32:09.6
Compression from SSW
PZ 0.44 u, 1.1 sec.

e(PKP) 21:49:31.7

26 eP 02:24:54.7
i 59.0
i(S) 25:16.5

eP 06:30:10.4
iS 25.1
Distance 120 km

eP 14:22:14.3
local
PZ 0.08 u, 0.7 sec.

27 eP 01:43:37.7
eS 44:06.0
i 06.8
Distance 240 km

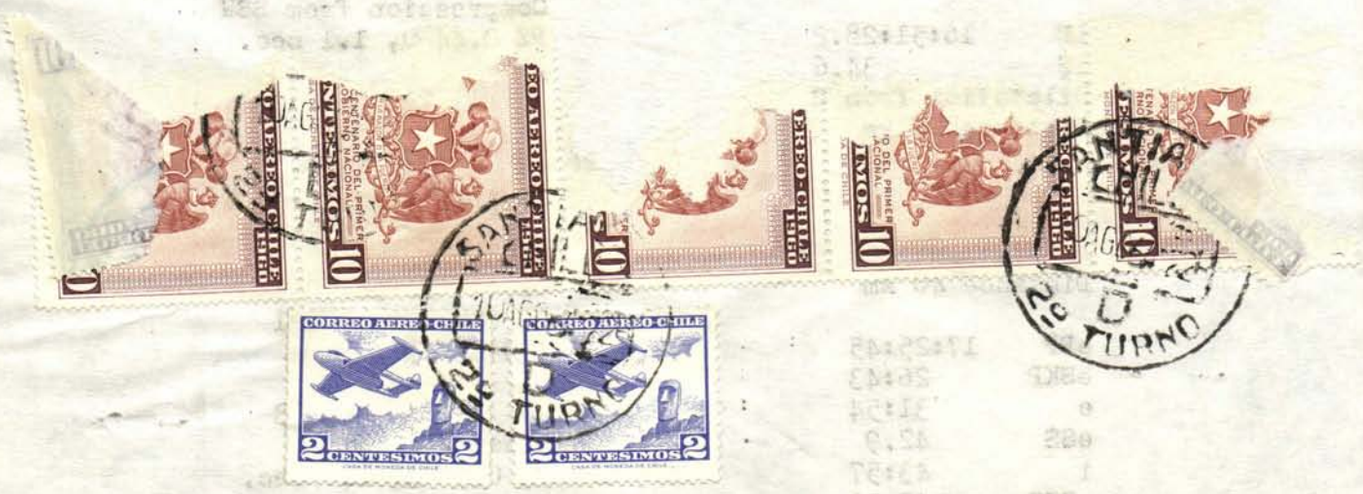
eP 09:09:30
i 37.3
iS 58.4
Distance about 240 km

eP 13:08:15
i(R) 09:24

VELA Station stopped recording on July 27 for overhauling.

J. Frez
Seismologist

INTERNATIONAL SEISMOLOGICAL SUMMARY
KEW OBSERVATORY
RICHMOND, SURREY, INGLATERRA.



Aug 64

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# PROVISIONAL READINGS AT SANTIAGO
(Santa Lucía)

Aug. 1964

4 No records on S.P.

e(P) 07:28:22
eS 29:12

5 eP 03:18:17.9
eS 34.1

e(P) 06:48:24
eS 49:56.8

iP 08:26:42.3
eS 27:20

eP 10:02:49.5
eS 04:05.2

eP 11:18.20
iS 28:26

eP 11:19:16
e(sS) 29:40
e(SS) 34:22
eG 41:14
two shocks?

eP 22:08:05.7
eS 09:16
Distance 680 km

iP 22:25:12.5
eS 26:43.8
Distance 900 km
Magnitude about 6

6 eP 14:13:55.8
eS 14:05.7
Distance 80 km

eP 16:04:08
eS 58.5
Distance 490 km

eP 18:40:18.5
eS 51.7
Distance 310 km

e 19:19:25

7 eP 01:27:39.5
eS 28:32.8
Distance 520 km

eP 08:10:24.5
e(S) 12:39
Distance 12°

Aug. 1964

7 eP 08:39:13
eS 27.3
Distance 120 km
Small

e 15:55:42

e(P) 22:59:20.5
eS 23:00:22.5

8 e 01:16:39.5

eP 05:32:06.7

eP 06:20:47
eS 21:37.7
Distance 490 km

9 eP 00:57:57.5
eS 58:37.5
Distance 380 km

eP 07:59:29.8
eS 08:02:22
Distance 16°

iP 15:36:22.2
eS 36
Distance 120 km

eP 20:20:54.1
eS 21:14
Distance 180 km

10 eP 05:09:35
eS 10:08.3
Distance 310 km
Small

eP 07:11:22.5
eS 12:03.5
Distance 390 km

e(P) 21:06:00
eS 16

11 eP 04:22:45.5
eS 23:04.5
Distance 170 km

12 eP 06:44:32
e(S) 45:04

e(P) 12:14:47

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PROVISIONAL REALINGS AT COPIAPO

Aug. 1964

| | | |
|---|---|---|
| 2 | eP | 13:58:02 |
| | eS | 18 |
| | Distance 130 km | |
| | eP | 21:08:51 |
| | eS | 09:08 |
| | Distance 130 km | |
| 3 | eP | 05:21:18 |
| | eS | 34 |
| | Distance 130 km | |
| | eP | 10:39:51 |
| | eS | 40:03 |
| | Distance 95 km | |
| | iP | 13:12:06 |
| | eS | 17 |
| | Distance 90 km | |
| | e | 13:58:21 |
| | eP | 14:01:01 |
| | eS | 06 |
| | Distance 40 km | |
| | eP | 20:54:00 |
| | eS | 10 |
| | Distance 80 km | |
| 4 | iP | 07:23:32 |
| | eS | 26:49 |
| | Distance 140 km | |
| | eP | 08:58:11 |
| | eS | 28 |
| | Distance 140 km | |

Aug. 1964

| | | |
|---|---|---|
| 4 | eP | 12:50:38 |
| | eS | 50 |
| | Distance 95 km | |
| | eP | 16:51:27 |
| | eS | 43 |
| | Distance 130 km | |
| 5 | eP | 08:26:55 |
| | eS | 27:36 |
| | Distance 365 km | |
| | eP | 22:07:46 |
| | eS | 08:18 |
| | Distance 275 km | |
| | eP | 22:26:37 |
| | e(S) | 29:39 |
| 6 | e | 20:19:55 |
| 7 | eP | 08:09:44 |
| | eS | 10:20 |
| | Distance 315 km | |
| | eP | 22:58:40 |
| | eS | 57 |
| | Distance 140 km | |
| 10 | e(S) | 01:01:01 |
| | e(S) | 19:02:43 |
| 11 | eP | 03:55:05 |
| | eS | 17 |
| | Distance 95 km | |

L. Cabello
Seismologist

PROVISIONAL READINGS AT GABRIEL GONZALEZ VIDELA (ANTARCTICA)

Aug. 1964

| | | |
|---|---|---|
| 5 | e | 11:17:01 |
| | e | 11:26:02 |

Aug. 1964

| | | |
|---|---|---|
| 5 | iP | 22:28:33 |
| | iPP | 29:14 |
| | iPPP | 27 |
| | iS | 32:59 |
| | eSSS | 34:23 |
| | eR | 35:08 |
| | Distance 26° | |
| | h = 25 km | |
| | Sandwich Islands? | |
| | Magnitude about 6.0 | |

P. Vera
Seismologist

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# PROVISIONAL READINGS AT ANTOFAGASTA

Records continuously interrupted from July 27 to Aug.8 by USCGS technicians who were checking up the instrumental.

Jul. 28 1964
ePKP 21:58:50
ePP 22:03:29
eSS 24.1

29 eP 01:13:39.2
eS 54.1
Distance 120 km

ePKP 23:23:28

iP 23:44:44.5
eS 45:22.9
Dilatation
Distance about 340 km

30 iP 04:05:31.2
eS 06:07.5
Compression
Distance 320 km

e(P) 05:37:50
local

iP 06:04:31.9
iS 36.1
Compression from N
Distance 30 km

eP 22:30:48.2
iS 31:09.2
Distance 170 km

31 eP 05:43:06.4
i(S) 53

ePKP 06:11:26
ePP 13:48
ePKS 14:53
e(SKSP) 23:48
eSS 31:16
eG 46:--
eR 53:--
From SW

Aug. 1964
1 iS 15:23:00.2

eP 18:14:13
i(R) 16:11

eP 22:12:17.7
PZ 0.04 u, 0.5 sec.
local

Aug. 1964
~~1 eP 22:29:02.5~~
local
aftershock?

2 eP 08:15:43
local

iP 12:21:48.0
i(S) 53.6
i 55.0
Dilatation from SSW

eP 13:58:41.2
i(S) 59:46
i 51
PZ 0.14 u, 1.0 sec.
Dilatation from S?

iP 15:40:52.9
i 59.8

eP 21:09:42.0
local

3 eSS 02:02.9
eSSS 04.1
eG 09.9
eR 14.8
Interpretation doubtful!

iP 03:49:53.7
iS 50:42.3
Dilatation
Distance 460 km

iP 04:34:22.4
i(S) 40.7
i 41.7
Compression

eP 05:23.1
local

iP 10:42:08.7
iS 13.5
Compression from S
Distance 40 km
Small local

eP 13:12:53.7
i 13:00.6
i(S) 55.9

4 iP 07:27:12.1
i(S) 28:26
Compression from SSW

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PROVISIONAL READINGS AT ANTOFAGASTA

Aug. 1964

4 iP 08:58:49.7
eS 09:00:03
Dilatation

iP 12:20:57.9
iS 21:04.0
Compression from N
Distance 50 km
Small local

iP 13:24:52.9
iS 25:33.2
Compression
Distance 360 km

eP 14:23:31.0
iS 24:08.0
Distance 350 km

eP 17:18:07.6
i 08.8
i(S) 49
Dilatation?

ePKP 17:43:49

ePKP 17:47:13

eP 21:05:01
iS 06:28
Distance 840 km

iP 21:23:55.3
iS 24:21.5
Distance 240 km

5 e(PKP) 00:19:07

iP 06:52:05.4
e(S) 55:55
PZ 0.04 u, 0.7 sec.

eP 08:27:35
iS 48
i 29:14

ePKP 11:04:55.1

iP 11:18:51.2
iSKS 29:07
ePS 38
eSS 35:55
eSSS 39:27
eL 44:--
PZ 0.06 u, 0.9 sec.

Aug. 1964

5 eP 13:45:55.6
eS 46:34.2
Compression
Distance 360 km

eP 17:10:24
eS 42.8
Distance about 170 km

eP 19:32:35.3
iS 53.6
Compression from W
Distance 160 km

6 eP 02:08:30

eP 02:27:18
i 20.6
e(S) 30:37
eR 31:50
Distance 21°

eP 07:03:45.1
Dilatation
local

e(PKP) 07:31:40

eP 07:58:16
eS 59:12.0
Distance 340 km

eP 11:07:32.8
e(S) 55.1
i 58.8

iP 14:27:57.2
eS 28:44.0
Compression
Distance 460 km

eP 20:47:54
local

iP 22:31:42.1
iS 48.3
Compression from ENE
Distance 50 km
Small local

7 eP 07:32:25.6
i 26.7
iS 45.9
Dilatation
Distance 180 km

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ANTOFAGASTA

Aug. 1964

7 eP 08:10:09
i 09.6
eS 11:07
Distance about 490 km

Readings difficulted by microseisms from August 7 to August 9.

eP 14:42:16
eS 43:19
Distance 610 km

eP 16:58:50.2
eS 59:26.5
i 28.2
Distance 340 km

eP 23:21:48.7
e(S) 22:20.4

8 iP 00:29:13.6
eS 51.1
Distance 400 km

eP 06:31:32
eS 52.1
Distance about 180 km

eP 15:53.0
ePP 54:43
eS 58.9
eSS o eG 16:01:42
eR 04:09
From NNW

eP 16:47:05.7
i 06.8
Compression
Local

9 eP 08:01:20
e 05:31
eR 06:38

eP 08:21:02.5
iS 36.6
Dilatation?
Distance 310 km

iP 17:15:21
iS 26.6
Compression from NNE
Distance 40 km

eP 19:40:03.6
eS 21.0
Distance 150 km

Aug. 1964

10 iP 01:18:05.0
eS 24:20
eSS 27:33
Dilatation from N
PZ 0.19 u, 1.1 sec.
Magnitude 5 3/4-6
Interpretation doubtful!

eP 07:36:29.2
i 29.5
iS 37:43
Compression from N
PZ 0.24 u, 0.8 sec.
Distance about 720 km

iP 19:01:57.0
iS 02:21.5
Compression from NW
Distance 210 km

eP 21:08:02.4
iS 10:00
Compression from SSE?
PZ 0.04 u, 0.6 sec.

11 eP 00:31:26.0
iS 42.5
Distance 140 km

iP 01:44:38.3
iS 45:18.3
Compression from E
Distance 380 km

eP 04:57:46
eS 58:02.3
Distance about 140 km

eP 09:50:03.1
eS 26.3
Dilatation
Distance 210 km

eP 09:58:51
eS 59:10
Distance about 260 km

eP 14:58:06.3
eS 17.6
Compression
Distance 100 km

eP 21:43:06.2
eS 40.6
Distance 320 km

iP 23:56:26.9
iS 57:02.7
Compression from ESE
Distance 300 km

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PROVISIONAL READINGS AT ANTOFAGASTA

Aug. 12 1964

iP 03:32:47.4
eS 34:15.2
Compression from E
Distance 250 km

eP 02:43:33
local

iP 03:17 16.4
eS 57.1
Compression from E
Distance 390 km

eP 06:46:38.5
eS 47:16.5
Distance 360 km

eP 06:52:25.1
eS 53:01.8
Distance 340 km

eP 14:20:26.7
eS 52.1
Dilatation
Distance 220 km

iP 21:09:49.3
iS 10:14.4
Compression from E~~S~~
Distance 220 km

13 iPKP 00:40:37.2
i 51:16
i 42
i 52:19
ipPP 58
eSKS 56:11
epPS 01:02.9
eSS 08.0
eG 23.1
Dilatation
Interpretation doubtful!

ePKP 04:02:46

eP 05:19:26.1
eS 20:07.1
Distance 390 km

eP 16:03:20
eS 43.3
Distance about 190 km

eP 21:14:23
eS 41.2
Distance about 160 km

Aug. 14 1964

eP 04:39:27.9
eS 53
Dilatation
Distance 200 km

iP 09:53:19.1
iS 33.4
Dilatation from SE
Distance 110 km

eP 12:05:34.0
eS 06:12
Distance 360 km

eP 18:45:04
eS 30.2
Distance about 230 km

eP 18:56:34.9
i 35.3
eS 57:02.0
i 03.8
Distance 240 km

iP 20:11:43.5
iS 49.9
Compression
Distance 40 km

eS 21:37.9
eSS 42:--
eR 48.8
Doubtful!

15 eP 05:44:48.3
eS 45:26.6
Compression
Distance 360 km

eP 07:54:20.5
eS 52
Distance about 290 km

eP 10:22:06.9
iS 22.8
Distance 140 km

eP 10:33:37
e(S) 34:01

eP 12:30:32.0
eS 51.7
Distance 170 km

eP 16:34:57.2
e(S) 35:20

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PROVISIONAL READINGS AT ANTOFAGASTA

Aug. 16 1964

eP 03:07:56.9
eS 08:10.8
Distance 120 km

eP 14:16:18.0
eS 49
Distance about 290 km

eP 15:24:11
eS 28.5
Distance about 250 km

iP 19:29:30.8
eS 30:11.0
Dilatation
Distance 370 km

iP 21:57:01.8
eS 40.9
Compression from E
Distance 350 km

17 eP 00:35:29.5
eS 36:06
i 08.0
Compression
Distance 340 km

Aug. 17 1964

eP 01:50:38.8
eS 51:15.6
Compression
Distance 340 km

eP 03:01:16
Local

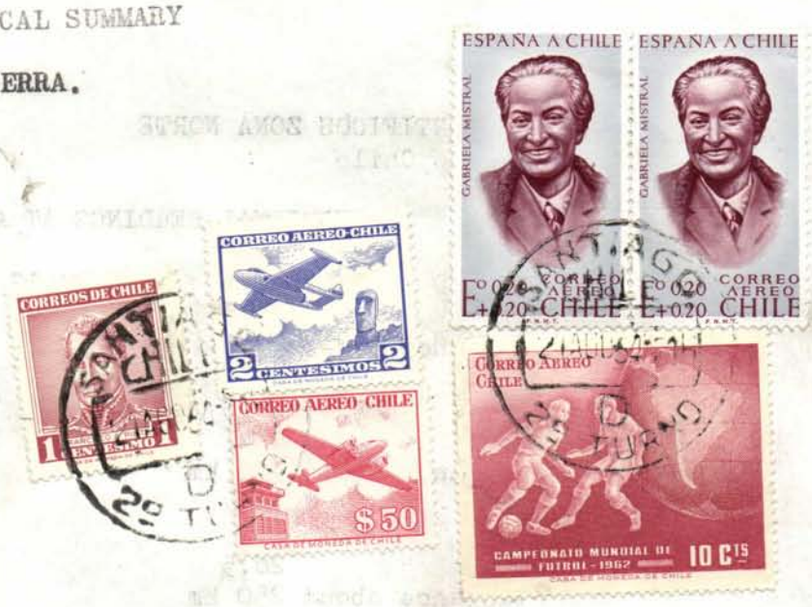
eP 08:43:44.3
iS 44:24.2
Distance 370 km

iP 08:46:02.3
eS 41.9
Compression
Distance 370 km

iP 10:50:47.4
eS 51:22.5
Compression from W
Distance 330 km

J. Frez
Seismologist

INTERNATIONAL SEISMOLOGICAL SUMMARY
KEW OBSERVATORY
RICHMOND, SURREY, INGLATERRA.



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## PROVISIONAL READINGS AT SANTIAGO
(Santa Lucía)

Aug. 13 1964
iPKP 00:49:26.5
ePP 50:44
e(PKS) 52:38
e(SKS) 55:52
eSKKS 57:29
eSP 01:00:29
iPPS 02:12
eSSP 07:21
e 10:28
e(G) 21:32
two shocks?

iP 02:16:10.5

14 eL 21:52:20

15 Nothing

Aug. 16 1964
eS 03:22:12.4
Small

eP 03:57:48.5
eS 58.5
Distance 80 km

eP 18:44:27.5

eS 20:12:39.5

eP 21:45:22.3
eS 35.5
Distance 110 km
Small

H. Becker
Seismologist

## PROVISIONAL READINGS AT COPIAPO

Jul. 27 1964
eP 19:56:17
eS 28
Distance 90 km

28 iP 06:34:25
eS 39
Distance 110 km

eP 11:52:57
eS 53:03
Distance 50 km

eP 15:55:18
eS 23
Distance 40 km

29 eP 00:43:13
eS 18
Distance 40 km

eP 00:57:09
eS 18
Distance 70 km

eP 04:54:59
eS 55:16
Distance 140 km

30 eP 23:31:53
eS 32:05
Distance 95 km

31 iP 05:42:32
eS 46
Distance 115 km

Jul. 31 1964
eP 19:13:26
eS 41
Distance 120 km

Aug. 1 1964
iP 13:55:10
eS 22
Distance 95 km

CPP

eS 18:14:19

eP 22:11:39
eS 55
Distance 130 km

eP 22:12:11
eS 23
Distance 95 km

eP 22:14:57
eS 15:11
Distance 110 km

eP 22:28:24
eS 39
Distance 120 km

eP 22:33:45
eS 34:00
Distance 120 km

2 eP 11:09:42
eS 51
Distance 70 km

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PROVISIONAL READINGS AT SANTIAGO

Aug.17 1964
iP 03:00:52
eS 01:09.2
Distance 150 km

eP 10:09:28.4
iS 45.5
Distance 150 km

iP 10:55:56
iS 56:06.4
Distance 85 km

eP 15:23:20
iS 27.2
Distance 50 km

eP 15:46:--
eS 22

iP 17:12:39.2
eS 13:13.6
Distance 340 km

eP 20:18:49.7
e 20:08

18 eP 04:46:44
iS 47:58
Distance 730 km

eP 10:43:05.5
eS 16.7
Distance 90 km

eP 14:28:09
eS 29:20.1
Distance 700 km

eP 14:56:18.5
e(S) 57:41

19 eP 08:22:58.5
iS 23:27.5
Distance 260 km

iP 21:41:50.7
iS 42:14.7
Distance 200 km
Small
iPg 23:07:07.1
ePn 12.1
eSg 17.1
Distance 90 km

Aug.19 1964
iP 23:28:08.9
eS 35.8
Distance 250 km

20 eP 01:05:35.8
eS 49.9
Distance 120 km
Small

eP 02:42:19.5
eS 29.5
Distance 80 km
Small local

eP 05:37:43
eS 53
Distance 80 km

eP 06:18:37.4
eS 48.3
Distance 90 km
Small local

eP 13:04:32
e(S) 06:10.2

eP 18:12:43
eS 58.5
Distance 130 km
Small local

e 19:09:47
Small

21 eP 03:13:46.6
e 14:56
iS 15:16
Distance 860 km

eP 03:28:40.3
e 29:35
eS 30:09.7
Distance 960 km
After shock

eP 08:08:09.3
eS 09:37
e(R) 10:05
Distance 1.110 km

iP 23:44:17.5
eS 25
Distance 35 km
Small local

eL 23:53:40

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# PROVISIONAL READINGS AT SANTIAGO
(Santa Lucía)

Aug.22 1964

eP 02:10:34
iS 12:00
Distance 850km

iP 07:13:58.5
eS 14:31
Distance 300 km
Small

eP 08:32:22.7
eS 33:07
Distance 420 km

eP 10:04:48.5
e(S) 05:30.5

iP 12:33:28.2
iS 50
Distance 200 km
Small

iP 12:59:26.6

iP 23:43:29.3
iS 39.7
Distance 85 km
Small local

23 iP 01:59:49

iP 06:22:09.2
iS 19.2
Distance 80 km

iP 10:25:32.9
iS 43.3
Distance 85 km

iP 10:31:12.5
iS 51
Distance 360 km

eL 16:22:--

eP 22:07:38.4
eS 49.2
Distance 90 km
Small

iP 22:50:45
iS 53.4
Distance 65 km
Small

Aug.24 1964

iP 04:53:34.4
iS 44.6
Distance 80 km

iP 05:19:57.1
eS 20:07.3
Distance 80 km
Small local

eP 06:51:25.8
eS 35.5
Distance 80 km
Very Small

eP 06:53:15,1
eS 25.5
Distance 85 km
Very Small

eP 07:45:49.5
eS 46:24
Distance 325 km

iP 08:57:27.8
iS 37.9
Distance 80 km
Small

eP 10:11:31
iPP 42.1
i 12:15.4
iS 39.6
Distance 670 km

iP 11:59:05.2
iS 16.6
Distance 95 km
Small

iP 13:42:37.9
iS 54.5
Distance 145 km

iP 13:44:58.8
iS 45:20
Distance 190 km

iP 16:12:39.2
iS 48.7
Distance 75 km.

25 eP 01:48:36
eS 52.3
Distance 145 km

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## PROVISIONAL READINGS AT CONCEPCION

Aug.20 1964 eP 21:43:24
eS 56.5
Distance 270 km

21 eP 03:12:57
iS 13:15.5
Distance 145 km

eP 03:27:49
iS 28:09
Distance 160 km

iP 08:07:17
iS 34
Distance 135 km

22 iP 02:09:42
iS 10:00
Distance 145 km

eP 03:41:47

eP 03:42:52.5

eP 08:32:00
eS 21
Distance 170 km

Aug.25 1964 eP 01:47:33
eS 37.5
Distance 15 km

eP 07:11:32.5
eS 49.
Distance 130 km

eP 07:13:56.5
eS 14:14.5
Distance 145 km

iP 07:46:09.5
eS 29.5
Distance 160 km
Felt I at Concepción

eP 07:51:21.5
eS 38.5
Distance 135 km

28 eP 05:16:25.5

31 iP 22:44:48.5
iS 44:51.5
Distance 25 km

A. Trautmann.
Seismologist

## PROVISIONAL READINGS AT GABRIEL GONZALEZ VIDELA

Aug.18 1964 eP 04:52:27
ePP 53:55
ePPP 54:14
eS 58:23
eSS 05:00:59
eSSS 01:39
eL 03:20
Distance 38°

iP 21:07:52
iPPP 08:11
iS 22
eR 47
Distance 2° (local)
No record from N-S and Z seismographs

Aug.19 1964 iP 01:34:44.4
No record from N-S and Z seismographs

25 iP 14:07:19
iPP 08:29
eS 12:16
eSS 46
Distance about 31°
h 100 km
No record from N-S and E-W seismographs

P.Vera.
Seismologist

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# PROVISIONAL READINGS AT ANTOFAGASTA

Aug. 17 1964
eP 12:12:20.9
eS 55.0
Dilatation
Distance 320 km

iP 15:04:18.7
S 44
Compression from SE
Distance 220 km

iPKP 15:13:41.7

iP 20:18:28.2
eS 19:41.1
Compression from SE
Distance 740 km

18 iP 00:30:40.0

iP 04:45:47.9
Dilatation from SSW
Very strong

iP 08:44:08.2
i 16
eS 23.5
Dilatation from NE
Distance 120 km

iP 11:33:56.2
iS 34:05.1
Compression from NNE
Distance 60 km

iP 14:27:42.5
eS 28:54
Distance 700 km

iP 14:55:05.4
eS 56:18
Distance 710 km

iP 15:22:06.8
eS 23:20
Distance 710 km

eP 19:07:23.5
e(S) 08:34
Distance 690 km

iP 21:59:34.7
iS 47.0
Distance 80 km

20 iP 07:16:26.4
iS 47.2
Dilatation from NE
Distance 160 km

Aug. 20 1964
iP 11:03:14.0
iS 59.6
Compression
Distance 420 km

iP 17:12:10.2
iS 46.5
Dilatation
Distance 320 km

iP 20:45:15.3
iS 55.1
Compression
Distance 360 km

21 iP 02:10:09.1
eS 30
Compression from S
Distance 160 km

eP 10:14:58
iS 15:54
Distance 540 km

22 eP 01:36:51.6
eS 37:21.3
Distance 280 km

e(P) 02:16:12

iP 02:28:20.2
eS 58.0
Compression
Distance 360 km

eP 04:04:58.3
e(S) 05:20.0
i 23.3

iP 10:03:10.3
i 39.2
i(S) 52.0
Compression from S.

iP 11:44:52.8
i(S) 45:10.5
Compression from W.

eP 14:46:26.1
eS 47:11.0
Distance 440 km

eP 15:49:36.3
e(S) 50:35.4
PZ 0.04u,0,7 sec.
Compression?

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# PROVISIONAL READINGS AT ANTOFAGASTA

Aug. 23 1964

iP 06:44:45.7
e(S) 45:48
PZ 0.09 u, 0,6 sec.
Compression

eP 08:55:35.4
eS 56:12.6
Distance 350 km

eP 10:32.2
local

iP 13:26:59.4
i(S) 27:19
Dilatation from SE

ePKP 15:43:12
ePP 45:30
ePKS 46:36
eSS 16:02:57
eSSS 07.9
e(G) 17.3
e(R) 26:33
from WSW
Distance 132°

eP 19:57:33
e(S) 58:00
i 06.8

eP 21:02:00
i 06.8
e(S) 03:05

24 iP 03:05:17.2
eS 40
Dilatation
Distance about 210 km

ePKP 08:38:37

ePKP 10:42:17

eP 13:55:09.5
eS 44.9
Compression
Distance 330 km

eP 17:24:16
eS 41.7
Distance about 230 km

i(PKP) 17:46:01.1

Aug. 25 1964

eP 04:55:45.8
iS 56:11.6
Dilatation
Distance 230 km

eP 06:31:23.5
eS 59.6
Distance 340 km

eP 07:26.9
eS 27:36.3

ePKP 14:06:21
e 08:06
iPP 12
eSKKS 15:09
eSP 17:54
ePPS 19.7
eSS 25.1
eSSS 29:54
eG 39:03
eR 45
from NNW
Distance 126°

eP 16:33:50
eS 34:16.1
Distance about 230 km

eP 21:39:26
eS 56
Distance about 280 km

eP 23:57:24.6
e(S) 28:23

26 eP 12:04:45.3
e(S) 05:07.0
Dilatation

iP 13:48:45.0
eS 49:26
Distance about 390 km

eP 15:51:11.0
iS 31.6
Dilatation from E
Distance 180 km

eP 17:27:48.1
eS 28:03.9
Small local
Distance 140 km

eP 20:49:05.7
local

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PROVISIONAL READINGS AT ANTOFAGASTA

Aug. 27 1964
iP 01:44:04.3
Small local
Dilatation

e(PKP) 01:54:14

eP 08:54:40.9
eS 47.3
Compression
Small local
Distance 40 km

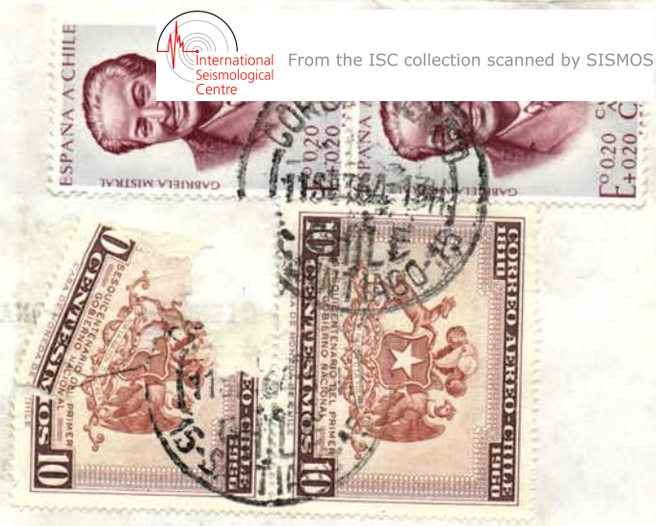
28 eP 05:43:04.9
eS 36.2
Distance 280 km

Aug. 28 1964
iP 09:03:02.1
iS 45
Compression from E
Distance about 330 km

eP 11:04:08.6
eS 45.4
Distance 340 km

J. Frez
Seismologist

INTERNATIONAL SEISMOLOGICAL SUMMARY
KEW OBSERVATORY
RICHMOND, SURREY, INGLATERRA.



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# PROVISIONAL READINGS AT SANTIAGO
(Santa Lucía)

33° 26' 40" S
70° 38' 54" W
h= 581 mts

1964

Sept. 1 eP 04:59:49.6
iS 05:00:24.2
Distance 90 Km

eP 12:58:28
eS 48
Distance 180 Km

iP 17:32:10.3
iS 23.4
Distance 110 Km

iP 22:19:46.5
iS 20:18.5
Distance 200 Km

2 eP 07:59:20
eS 37.5
Distance about 150 Km

3 eP 02:37:12
eS 20.5
Distance about 50 Km

iP 10:07:40.2
iS 08:07
Distance 250 Km

4 eP 01:57:18.5

eP 01:58:12.4
eS 28.5
Distance 140 Km
e(SS) 03:45:09
e(SSS) 48:33
eL 53:06

eP 05:41:(00)
iS 12.7
On minute mark

iP 09:04:15.9
eS 05:16
Dilatation
Distance 580 Km

eL 11:42:--

5 eP 02:11:29.7
eS 13:18
Distance about 10°

Sept. 5 epPKP 03:14:15
e(SKKS) 23:05
e 24:17
e 31:08
e(PSS) 34:19
e(G) 45.2
eR 52.5

eL 12:53:--

6 eP 03:56:25.5
e(S) 57:29.5
eL 04:00:--

iP 07:41:48
eS 42:09.9
Distance 200 Km
Small

eP 14:53:(00)
eS 12.5
On minute mark

eP 16:16:12.7
eS 17.8
Distance 30 Km
Small local

eP 17:11:11.8
eS 24
Distance 100 Km

eL 21:26.0

7 eP 07:37:15
eS 31.5
Distance 145 Km
Small

eP 09:11:47
e 12:22.2

eP 09:21:34.5

8 iP 04:34:14.4
iS 28.8
Distance 125 Km

9 eP 05:00:42
eS 01:41
Distance 570 Km

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# PROVISIONAL READINGS AT SANTIAGO
(Santa Lucía)

Sept.10 1964
iP 02:06:25
eS 40.6
Distance 130 Km

eP 04:10:08.5
eS 31.5
Distance 210 Km

eP 06:22:53
eS 23:20.5
Distance about 250 Km

eP 07:57:(00)
eS 34.7
On minute mark

eP 10:29:09.6
eS 28
Distance 165 Km

iP 17:37:31
iS 45
Distance 130 Km
Felt 4/5 at Stgo.

eP 18:57:37
eS 58:08
Distance 290 Km

11 eP 04:26:17
eS 28:08
Distance 10°

12 eP 01:18:19
eS 41.5
Distance about 200 Km

epP 22:19:34
ePP 22:54
e(PPP) 24:20
eSKS 29:58
eSS 42:40
(G) 47.5
R 50.1
Distance 92°

13 eP 03:28:10
eS 29:15
Distance 630 Km

eP 12:43:22.2
eS 58
Distance about 340 Km

Sept.13 1964
eP 15:16:43.6
eS 17:(00)
On Minute mark

e 19:08:55.5

eP 22:52:08.5
eS 26
Distance 155 Km

14 eP 07:46:22
eS 30
Distance 60 Km
Small local

eP 09:23:43.1
eS 53
Distance 80 Km
Small local

eL 12:05:--

eL 13:58:--

eP 16:44:44
eS 45:28
Distance 420 Km

15 eP 06:35:32.7
Small

eP 15:49:18
eS 40
Distance 200 Km

e(P) 16:15:26
eS 17:52

eP 16:56:04
eS 19
Distance 130 Km

eL 20:38:--

eL 21:13:50

E. Lorca
Seismologist.

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PROVISIONAL READINGS AT PELDEHUE.

33° 08' 37" S
70° 41' 07" W
h 690 mts.

Sept. 3 eP 00:56:17.5
1964 eS 29
Distance 90 Km
Small

iP 02:36:56
eS 37:08.5
Distance 100 Km
Small

iP 09:13:28.5
iS 44.7
Distance 130 Km
Small

eP 10:07:36.5
eS 09:03
Distance about 810 Km

e 19:37:29

4 eP 01:57:09.2
eS 58:25
Distance about 710 Km

e 03:37:40.5

iP 05:41:06.4
iS 21.5
Distance 120 Km

iP 09:04:11.6
i(S) 05:30.7

eP 19:11:00
eS 15.5
Distance 125 Km

5 eP 02:11:25.5
eS 13:16
Distance 11°

eP 15:08:26.6
e(S) 11:47

eP 17:26:36.9
iS 28:03.5
i 27
Distance about 860 Km

iP 22:27:54.9
iS 28:06
Distance 90 Km

Sept. 6 eP 03:56:21.5
1964 eS 57:13.5
Distance 500 Km

iP 07:41:46.2
iS 42:07.2
Dilatation from NE
Distance 190 Km

iP 14:53:01.6
iS 20
Distance 165 Km

eP 16:16:08.6
eS 20.1
Distance 95 Km

e 19:00:32

7 eP 04:58:56.5
eS 59:31
Distance 325 km

eP 07:37:10.3
iS 25.5
Distance 130 Km

eP 09:11:44.7
eS 12:16
Distance 290 km

eP 09:21:37.8
iS 22:07
Distance 270 Km

eP 20:54:05.2
eS 45.5
Distance 385 Km

eP 21:25:02
eS 16
Distance 120 Km

8 iP 04:34:12.5
eS 25.5
Distance 110 Km
Small

e 07:59:28

eP 09:26:37.3
eS 27:02
Distance about 230 Km
Small

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PROVISIONAL READINGS AT PELDEHUE

Sept. 8 1964
eP 18:11:54
iS 12:13
Distance 170 Km
Small

e(P) 20:42:36.8

9
eP 00:41:26
eS 57.5
Distance 295 Km
Small

eP 05:00:36
iS 01:36.8
Distance 590 Km

iP 13:15:33.4
iS 57.8
Distance 225 Km
Small

eP 17:21:52
iS 22:04.4
Distance 105 Km
Small

10 No record

11
eP 01:40:33
eS 41:03
Distance 280 Km
Small

eP 04:26:12.5
e(S) 27:39.5

12
eP 01:18:22.2
iS 49
Distance about 250 Km

eP 13:02:17.5
eS 47.7
Distance 280 Km

e(P) 13:05:31.6
eS 06:26

eP 16:35:15.5
eS 36:50
Distance 930 Km

e 17:11:59.4

eP 20:58:13.6
eS 52.3
Distance 370 Km

Sept.12 1964
eP 22:19:34.7

eP 23:17:47.5
eS 53.5
Distance 40 Km
local

13
e(P) 00:10:21.3

eP 00:12:19.8
e 56
eS 13:06.5
Distance 450 Km

eP 02:07:18
iS 34.6
Distance 145 Km

eP 03:28:06.6
e(S) 51.8

eP 04:04:47
eS 05:03.6
Distance 145 Km
Small

eP 04:17:47
eS 18:20
Distance 310 Km
Small

iP 12:43:18.9
iS 51.4
Distance about 300 Km
Small

e(P) 13:28:26

iP 15:16:40.6
iS 51
Distance 75 Km
local

eP 16:08:21.5
eS 49.5
Distance 260 Km
Small

eP 19:08:52
eS 09:23.5
Distance 295 Km

iP 22:52:01.9
iS 18.6
Distance 145 Km

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PROVISIONAL READINGS AT PELDEHUE

Sept.14 1964

eP 01:00:33.6
eS 53.2
Distance 180 Km

eP 07:46:22.5
eS 31.1
Distance 70 Km
Small local

eP 09:23:43.5
eS 53
Distance 85 Km

i 13:42:40.5

eP 14:29:12.5
eS 56
Distance 410 Km

eP 16:44:38.3
eS 45:16.5
Distance 360 Km

eP 16:56:05.3
eS 44.5
Distance 370 Km

eP 23:17:26
iS 43.6
Distance 155 Km
Small

15 eP 00:24:21.5
eS 39.7
Distance 180 Km
Small

eP 01:54:01.3
eS 21.5
Distance 180 Km
Small

eP 05:57:17.7

Sept.15 1964

eP 06:10:30
eS 58.1
Distance 260 Km
Small

eP 06:35:29.7
eS 46
Distance 140 Km

eP 09:05:10
eS 19
Distance 70 Km
Small local

eP 12:49:17.3
eS 32.9
Distance 135 Km
Small

eP 15:49:19.5
e 26.8
eS 44
Distance 225 Km

eP 16:15:31
e(S) 17:32.6

iP 16:56:00

eP 20:28:49.5

eP 21:05:57

eP 22:01:35
eS 02:09.5
Distance 325 Km
Small

eP 23:48:14.5
eS 23.5
Distance 70 Km
Small local

E. Lorca
Seismologist

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## PROVISIONAL READINGS AT COPIAPO

27° 21' 15" S
70° 21' 04" W
h 384 mts.

Aug.31 e(S) 22:34:41
1964

Sep. 3 e(S) 03:30:13
1964
eP 10:07:57
i 08:06
eS 34
Distance 325 Km

4 eP 01:56:29
eS 46
Distance 140 Km

iP 09:03:30
iS 48
Distance 145 Km

eP 14:24:45
eS 25:01
Distance 130 Km

5 e(S) 01:53:04

eP 02:10:15
eS 47
Distance 275 Km

6 eP 03:56:46
eS 57:03
Distance 140 Km

Sept. 6 eP 16:15:10
1964 eS 16:11
Distance 565 Km

8 eP 01:33:57
eS 34:08
Distance 90 Km

9 eP 04:59:39
eS 50
Distance 90 Km

10 eP 16:04:41
eS 59
Distance 145 Km

eP 17:38:31
eS 39:37
Distance 615 Km

11 iP 04:25:07
eS 26:01
Distance 495 Km

L. Cabello
Seismologist

## PROVISIONAL READINGS AT CONCEPCION

36° 49' 41" S
73° 02' 42" W

Aug.25 eP 01:47:33
1964

eP 01:47:36
eS 37.5
FELT I
Distance 15 Km

eP 07:11:32.5
eS 49
Distance 130 Km

28 eP 06:46:46.5

29 eP 13:09:20.5

Sept. 5 eP 17:25:46
1964

10 eP 17:38:20.5
iS 39:11.5
Distance 470 Km

A. Trautmann
Seismologist

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PROVISIONAL READINGS AT GABRIEL GONZALEZ VIDELA

64° 49' 13" S
62° 50' 54" W
h 4 mts.

| | | | |
|---|---|---|---|
| Sept. 4 1964 | L | 11:32:-- | |
| 5 | eL | 03:43:00 | |
| 6 | L | 21:37:-- | |

P. Vera
Seismologist.

| | | |
|---|---|---|
| Sept.12 1964 | iP | 22:17:14 |
| | ePcP | 50 |
| | ePP | 19:33 |
| | ePPP | 20:55 |
| | eS | 25:40 |
| | eSPP | 26:01 |
| | ePPS | 12 |
| | eScS | 27:08 |
| | eSS | 29:42 |
| | eG | 32:24 |
| | eR | 35:30 |

Distance about 62°

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# PROVISIONAL READINGS AT ANTOFAGASTA

23° 42' 18" S
70° 24' 55" W
h 80 mts.

Aug.28 eP 17:44:15.2
eS 31.1
Distance 140 Km

eP 18:51:11.1
eS 47.2
Distance 340 Km

29 eP 04:18:05
e(S) 19:31

iP 05:10:59.6
iS 11:08.0
Dilatation from S.S.E.
Distance 70 Km

eP 06:06:50
i 50.4
iS 07:46
Distance about 540 Km

eP 13:45:12.2
eS 26.6
Small local
Distance 120 Km

eP 15:12:21.3
eS 57
Distance about 310 Km

iP 16:17:56.5
iS 18:04.2
Dilatation
Distance 60 Km

30 eP 16:40:57.4
iS 41:11.3
Distance 120 Km

iP 20:59:55.9
iS 21:00:14.9
Compression from N.W. ,Dist 170 Km

31 eP 01:44:25.6
local

eS 02:26:16
eQ 27:41
eSS 28:11
eR 29:32
Distance 33 °
MH 13.4u, 19 sec.
Magnitude about 5 1/2

Aug.31 iP 05:33:02.3
iS 43.3
Compression from W
Distance 390 Km

Sept. 1 eP 10:40:47.4
eS 41:25.0
Distance 360 Km

iP 15:23:12.3
eS 24:42.5
Compression
Distance 280 Km

No records from 13.15
to 22.00 on Sept.2

2 iP 23:06:55.2
eS 07:35.5
Compression from NEE
Distance 380 Km

eP 23:37:31.7
eS 38:06.8
Distance 330 Km

3 iP 10:08:39.6
i 47.2
i(S) 10:07.1
i 12.5

eP 22:21:54.3
eS 22:15.2
Distance 170 Km

4 eP 01:57.4
e(S) 58:22.0

eP 03:36:50
eS 43:29
eG 46:58
eR 50
Distance 45°

iP 04:34:12.6
local
Dilatation from NEE

eP 09:04:10.9
iS 05:29
Distance about 770 Km

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PROVISIONAL READINGS AT ANTOFAGASTA

Sept. 4 1964

eP 09:38:18.4
iS 39:16
Dilatation
Distance 610 Km

iPKP 10:53:50.3
e(SKSP)11:08.0
eSS 16.0
eSSS 21:36
eG 35.0
eR 42.0
Compression
MH 86u, 20 sec.
Magnitude 6.2
Distance 150°

eP 17:28:58
e(S) 29:30

eP 18:45:22
eS 49
Distance 250 Km

5 iP 02:09:55.7
iS 10:16
Compression S.E.
Distance about 170 Km

e(PKP) 03:12:44
ePP 14:47
ePKS 16:05
eSS 32.2
eSSS 36.4
eG 46.4
eR 52
from SW ?
MH 50u, 22sec
Magnitude 6.0

e(P) 04:50:35.4
eS 58.7

eP 15:06:18.7
local

eP 16:34:58.5
eS 35:34.0
Distance 340 Km

eP 17:41:18.2
eS 54.4
Distance 340 Km

Sept. 5 1964

iP 23:03:08.3
iS 39.8
Compression from E
Distance 280 Km

6 eP 04:11:10
i 10.5
iS 37.5
Distance about 250 Km

eP 04:47:08.5
eS 26.5
Distance 150 Km

eP 06:11:55.1
Local

ePP 15:56:16
eS 16:02.0
e(G) 08:35
e(R) 10:17

iP 16:14:26.8
iS 15:13
Compression from NE
Distance about 410 Km

eP 17:28:41.5
i(S) 29:07.1

e(P) 19:00:47

e(P) 21:13:15
eS 19:23
e(G) 22:15
eR 23:47
from NEE?

eP 22:08:11.7
eS 45.1
Compression
Distance 310 Km

7 eP 00:33:06.5
eS 49.9
Distance 410 Km

eP 01:42:10.4
eS 58.4
Distance 460 Km

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PROVISIONAL READINGS AT ANTOFAGASTA

Sept. 7 1964

eP 02:02:25.3
eS 37.7
Dilatation
Distance 110 Km

iP 02:40:59.6
iS 41:04.0
Dilatation from N.W.
Distance 40 Km

eP 14:17:25.6
eS 43.8
Distance 160 Km

eiP 16:01:27.7
eS 02:09.0
Dilatation from E
Distance 380 Km

eP 17:12:19.7
eS 31.4
Distance 110 Km

8 eP 06:05:07.1
local

eP 08:32:06
local

eP 08:51:09.4
i(S) 33

eP 12:05:45.3
iS 50.4
Distance 40 Km

e(PKP) 13:59:45

eP 14:09:54.9
eS 10:30.2
Distance 330 Km

iP 19:58:25.4
iS 30.5
Dilatation from S.E.
Distance 40 Km

eP 22:21:55.5
i(S) 22:28

eP 23:49:23.9
iS 52.2
Distance 250 Km

9 eP 05:00:23.1
i(S) 01:27.9

Sept. 9 1964

eP 13:10:52.6
e(S) 11:13.0
i 14.2

eP 13:23:52.8
e(S) 24:15.0

iP 13:39:53.5
iS 58.7
i 59.4
Dilatation S.S.W.
Distance 40 Km

iP 14:24:34.2
iS 39.4
i 40.0
Dilatation from S.S.W.
Distance 40 Km

iP 19:58:44.2
eS 59:19.5
Dilatation from E
Distance 320 Km

10 eP 04:47:13.6
eS 42.1
Distance 260 Km

eP 05:31:22.4
eS 57.5
Dilatation
Distance 330 Km

eP 10:59:01.0
eS 44.2
Distance 400 Km

iP 11:53:39.7
iS 44.2
Dilatation from N.W.W.
Distance 30 Km

iP 13:16:28.9
eS 17:12.0
Compression from E
Distance 400 Km

eP 17:39:19.5
e(S) 41:04

eP 18:50:58.2
eS 51:37.4
Distance 370 Km

eP 22:51:49.6
e(S) 52:20.7

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PROVISIONAL READINGS AT ANTOFAGASTA

Sept.11 iP 00:38:40.3
eS 39:17.9
i 19.7
Dilatation from E
Distance 350 Km

iP 04:24:52.1
iS 32.4
Compression from SEE
FELT III/IV
Distance 380 Km

iP 05:05:27.5
iS 06:06.8
Compression from SEE
Distance 360 Km

iP 08:02:24.4
eS 52.8
Compression from E
Distance 250 Km

eP 15:03:57.1
eS 04:25.0
Distance 250 Km

iP 20:31:14.8
e(S) 21.5
i 22.5
Dilatation

eP 20:35:22.1
iS 51.1
Distance 260 Km

12 iP 00:33:25.4
iS: 34:02.2
Compression from SEE
Distance 340 Km

eP 02:29:10.5
eS 18.9
Distance 70 Km

eP 04:35:07.4
e(S) 34.8

eP 04:51:07.0
eS 30
Distance about 200 Km

iP 05:12:50.1
iS 55.3
Compression from SE
Distance 40 Km

Sept.12 eP 09:59:44.6
eS 10:00:27.1
Compression
Distance 400 Km

iP 11:49:32.2
eS 50:11.0
Compression from E
Distance 360 Km

e(PKP) 13:02:15
i 29.9
e 59
eSKP 05:53
e(PSP) 17:36
eSS 23:02
eSSS 28.2
eG 37.8
eR 46.3

iP 16:25:04.9
eS 26:07.0
Compression from NE
Distance 600 Km

eP 16:34:32.9
eS 35:08.3
Distance 330 Km

eP 17:42:40.9
local

eP 19:20:13.9
eS 31.5
i 32.9
Distance 150 Km

e(P) 19:55:02.4
eS 28.3

eP 22:20:13.2
i 14.7
ePP 23:57
eSKS 30:42
eSS 36.8
eSSS 40:57
eG 45:00
eR 50.0
Compression from SSW
PZ 1.67 u, 2.2sec
Magnitude about 7.1
Distance 92°

eP 23:17:42.7
e(S) 18:51

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PROVISIONAL READINGS AT ANTOFAGASTA

Sept.13 1964 eP 03:28:05
local

eP 04:47:53.7
eS 48:30.8
Distance 350 Km

eP 07:21:55
eS 22:26.3
Distance about 280 Km

eP 08:52:11
eS 39
Distance about 250 Km

eP 17:29:34.1
local

eP 19:44:44.1
e(S) 55.7
i 59.8

14 eP 04:24:22.5
local

eP 04:31:49.9
e(S) 32:05.8
Dilatation

eP 05:59:23.5
eS 57.9
Distance 310 Km

eP 06:48:33.4
eS 59
Distance 240 Km
eP 09:00:02.0
local

iP 10:48:53.4
i(S) 49:34.1
Compression from NE

eR 12:09:00

iPKP 13:41:40.0
Compression

e(P) 16:19:29.5
local

Sept.14 1964 eP 18:59:30.1
eS 57.5
Distance 240 Km

eP 21:26:00.8
i(S) 41.4

eP 21:48:02
eS 30
Distance about 240 Km

eP 22:40:54.7
eS 41:34.5
Dilatation ?
Distance 360 Km

15 iS 05:34:58.5

iPKP1 05:57:40.9
iPKP2 58.7
Compression

e(PKP) 09:06:11.9
Dilatation

eP 10:26:37.7
eS 54.2
Distance 140 Km

iP 11:12:27.5
iS 34.8
Compression from S
Distance 60 Km

ePKP 15:49:29
ePP 53:37
eSKKS 16:00:24
eSKSP 03:55
eSS 12:51
Compression
Perturbation due to Microseismic storm

iP 23:17:46.2
iS 51.8
Small local
Compression from N
Distance 40 Km

16 iP 03:50:09.2
iS 47.9
Compression from SEE
Distance 360 Km

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PROVISIONAL READINGS AT ANTOFAGASTA

Sept.16 1964
e(P) 15:10:16.3
eS 53.8

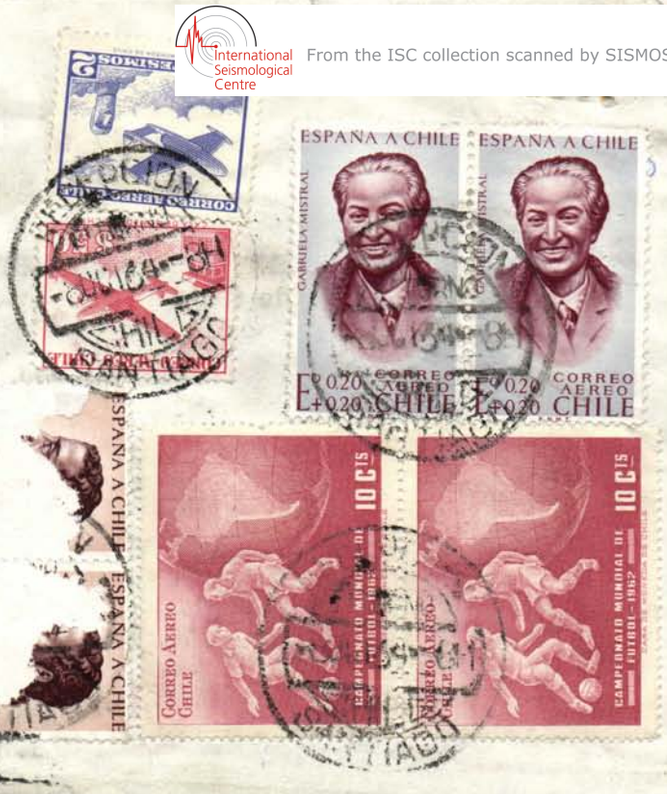
iP 15:57:29.2
iS 58:05.5
Dilatation
Distance 330 Km

Sept.16 1964
eP 16:52:52.2
eS 53:26.9
i 27.9
Distance 320 Km

iP 19:53:08.1
iS 14.2
Dilatation from NE
Distance 50 Km

J. Frez
Seismologist

INTERNATIONAL SEISMOLOGICAL SUMMARY
KEW OBSERVATORY
RICHMOND, SURREY, INGLATERRA.




IMPRESO

IMPRESO

IMPRESO

IMPRESO

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# PROVISIONAL READINGS AT SANTIAGO
(Santa Lucía)

Oct.01 No record Short Period
1964 Nothing Long Period

02 No record Short Period

e 13:28:---
eR 53.4

eS 13:33:08
local

03 eP 07:50:13
e(S) 51:19.4

eP 16:16:43
eS 17:13.5
Distance 285 Km

04 eP 04:34:(00)
eS 12.5
On minute mark

eP 09:24:52
eS 25:(30)

05 eP 01:12:58.5
eS 13:29.2
Distance about 290 Km

iP 19:52:07.3

06 eP 02:18:25.6
e(S) 19:55.4

eP 04:13:10.5
eS 14:12.0
Distance about 600 Km

eP 07:23:21
eS 27:48
eR 30.0
Compression
Distance 26°

eP 10:22:47.5
eS 25:32
Distance 15°

eP 14:35:05

epPKP 15:01:04
eSKS 07:33
ePPS 12:31
eSS 17:04
eSSS 21:52
eQ 27.3
eG 28.5
eR 33.1
Magnitude 7
Distance 110°

Oct. 06 eP 19:47:21.5
1964

07 Nothing

08 No record Short Period

eP 17:07:44
eS 08:20
Distance 340 Km

eP 20:54:20
eS 42
Distance 200 Km

eP 21:04:20
eS 38
Distance 160 Km

09 iP 00:49:13
e(S) 34

eP 07:11:19.3
eS 29.
Dilatation
Distance 78 Km

eP 21:02:42.7
eS 03:10
Distance 255 Km

10 eP 04:59:02.5
eS 20.6
Distance 160 Km

eP 06:38:16.8
eS 39.4
Small
Distance 205 Km

eP 09:22:11.4

iP 12:21:15.4
eS 32
Distance 145 Km

iP 13:50:13.6
i 19.2
iS 46.9
Distance about 310 Km

eP 20:20:02.3
e 20
e(S) 21:05

eP 22:46:14.3

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## PROVISIONAL READINGS AT SANTIAGO
(Santa Lucía).

Oct.10 iP 22:50:53
1964 iS 51:23
Distance 280 Km

Oct.10 eP 23:40:52.5
1964 eS 41:30
Distance 355 Km

E. Lorca.
Seismologist

## PROVISIONAL READINGS AT PELDEHUE

No record from 30/20:38
to 1/18:44

Oct.01 eP 19:59:07.6
1964 iS 33.4
Distance 220 Km

02 eP 13:32:58
iS 33:08.5
Distance 85 Km

e(P) 14:59:09.5

e 16:55:16
Teleseism

iP 22:48:09.1
iS 23.4
Dilatation
Distance about 120 Km

03 eP 05:55:36.5
eS 57.5
Distance 190 Km

eP 07:50:03.5
e(S) 59.8

iP 11:08:48.5
iS 09:00.5
Compression
Distance 100 Km

eP 16:16:46
iS 17:15
Dilatation
Distance 270 Km

eP 23:27:50.5
eS 28:23.4
Distance 310 Km

04 eP 00:28:44.7
iS 29:03.4
Dilatation
Distance about 170 Km

Oct.04 iP 03:01:58.2
1964 eS 02:13.9
Dilatation
Distance about 140 Km

eP 03:16:03
eS 19.5
Distance 145 Km

eP 04:49:04.5
eS 18.4
Distance 120 Km

eP 07:02:29
eS 43.5
Dilatation
Distance 125 Km

eP 07:17:13
eS 19.5
Distance 45 Km

eP 07:21:37.8
eS 52.0
Dilatation
Distance about 120 Km

eP 09:24:48.5
eS 25:19.2
Distance about 290km

eP 11:45:44

eP 13:02:22.5
eS 03:08
Distance 435 Km

eP 18:58:33.4
iS 47.9
Distance 125 Km
Small

05 eP 01:12:53.6
iS 13:24.5
Dilatation
Distance 290 Km

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## PROVISIONAL READINGS AT PELDEHUE

Oct.05 1964
e 03:55:00.5
e(P) 07:15:48.5
eS 16:13

06 Station stopped for testing from 5-10-64 at18:55 to 9-10-64 at 19:46

09 iP 21:02:44
iS 03:01
Dilatation from NW
Distance 150 Km

eP 23:07:34.8
eS 08:05.8
Distance 290 Km

10 eP 04:58:58.6
iS 59:13.5
Distance 130 Km

eP 06:38:10.5
eS 39:37.2
Distance about 860 Km

eP 07:44:22.5
eS 45:14.5
Small
Distance 500 Km

Oct.10 1964
eP 09:22:06.9
eS 34.5
Distance 255 Km

iP 12:21:18.7
eS 38.5
Compression
Distance about 180 Km

eP 13:50:11.5
eS 45.5
Distance 320 Km

eP 20:19:54
eS 20:49.6
Distance 535 Km

eP 21:27:10.5
eS 38
Distance 255 Km

eP 22:45:55.5
eS 46:23
Distance 255 Km

iP 22:50:47.7
Dilatation from NW?
T= 0.6 A= 5.3

eP 23:40:45.5
iS 41.21.6
Distance 340 Km

E. Lorca .
Seismologist

## PROVISIONAL READINGS AT CONCEPCION

h 46 mts.

Sept.21 1964
eP 09:21:39
eS 43.5
Distance 35 Km

24 eP 23:52:12.2
eS 27.2
Distance 120 Km

28 eP 05:40:27
eS 41:06
Distance 345 Km

Sept.30 1964
eP 08:24:19.5
eS 25:10.5
Distance 470 Km

Oct.02 1964
iP 14:58:15
iS 19
Degree III E.I.M.
Distance 32 Km

A. Trautmann
Seismologist.

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PROVISIONAL READINGS AT COPIAPO

| | | | |
|---|---|---|---|
| Sept.30 1964 | eP | 00:20:14 | |
| | eS | 30 | |
| | Distance 130 Km | | |
| | eP | 16:08:34 | |
| | eS | 39 | |
| | Distance 40 Km | | |
| | eP | 17:58:36 | |
| | eS | 50 | |
| | Distance 110 Km | | |
| Oct.02 1964 | e(S) | 07:10:45 | |
| 03 | eP | 21:05:42 | |
| | eS | 59 | |
| | Distance 140 Km | | |
| 05 | eP | 23:20:58 | |
| | eS | 21:15 | |
| | Distance 140 Km | | |
| Oct.06 1964 | eP | 02:17:31 | |
| | eS | 43 | |
| | Distance 95 Km | | |
| | eP | 04:12:32 | |
| | eS | 13:10 | |
| | Distance 340 Km | | |
| | e(P) | 07:23:41 | |
| | e(S) | 30:31 | |
| | eP | 10:22:31 | |
| | eS | 44 | |
| | Distance 105 Km | | |

L. Cabello.
Seismologist

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Universidad de Chile

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Santiago, Chile

# PROVISIONAL READINGS AT ANTOFAGASTA

Sept.29 1964

e(P) 14:13:40
eSKS 24.0
eS 24:44
eSP 25:55
eSS 31:08
eG 39.0
eR 43:04
From WSW
Doubtful interpretation

iP 17:34:42.6
iS 47.9
Dilatation
Distance 40 Km

e(P) 19:19:08
eS 31.9

eP 19:29:02.2
iS 13.8
Compression
Distance 100 Km

eS 20:32:35
local

iP 22:42:10.9
iS 47.0
Compression from E
Distance 320 Km

30 eP 00:20:23.3
iS 21:00.0
Dilatation
Distance 330 Km

eP 02:20:19.0
eS 55
Distance about 320 Km

eP 02:59:14.8
eS 59
Distance 420 Km

eP 03:55:28.8
iS 42.3
Distance 110 Km

iP 04:47:30.5
iS 36.1
Compression from WSW
Distance 50 Km

eP 07:56:40.9
eS 57:21.0
Distance 380 Km

Sept.30 1964

eP 08:25:32
eS 27:11
Distance 990 Km

eP 13:40:39.5
i 40.9
i(S) 41:02.7
i 05.0

eP 13:43:32.0
eS 55.4
Distance 200 Km

iP 22:54:14.0
iS 22.5
Compression from E
Distance 70 Km

Oct.01

eP 01:53:03.5
e(S) 40.0
Distance about 340 Km

eP 02:59:36.9
iS 50.5
Compression from E
Distance 120 Km

iP 04:35:24.0
eS 36:04.1
Compression
Distance 360 Km

eP 05:05:45
e(S) 06:24.9
Dilatation
Distance 360 Km

eP 06:40:24
eS 41:04.2
Distance 360 Km

iP 08:47:17.8
i(S) 46.7
Compression from NE

eP 12:16:23.6
Small local

eP 18:32:19.0
eS 35.1
Distance 140 Km

eP 19:00:27.9
eS 34.1
Dilatation from NW
Distance 50 Km

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PROVISIONAL READINGS AT ANTOFAGASTA

Oct.02 1964
eP 01:02:02.8
e(S) 35

eP 04:23:11.4
eS 49.9
Dilatation from W ?
Distance 370 Km

eP 04:34:43.2
eS 49.9
Compression
Distance 50 Km

eP 06:15:22.9
eS 16:05.3
Distance 380 Km

iP 06:24:33.3
eS 25:11.4
Compression
Distance 330 Km

eG 12:50:11
eR 55

iP 16:52:55.5
iS 53:22.2
PZ 0.29 u, 0.9 sec.
Compression
Distance 240 Km

eP 18:13:05.5
iS 25.8
Distance 160 Km

eP 18:59:51.3
eS 19:00:40
Distance about 470 Km

eP 22:36:11.5
eS 49.3
Distance 350 Km

03 eP 04:58:10.7
eS 46.6
Distance 330 Km

eP 09:16:47.4
eS 17:36.8
Distance 470 Km

eP 10:55:02
local

eP 13:24:39.1
iS 44.3
Distance 40 Km

Oct.03 1964
eP 16:24:14.8
i 15.2
eS 55.0
Dilatation
Distance 370 Km

e(P) 23:30:30.4
eS 42.4
i 46.5

04 eS 00:56:09
eSS 59.5
eG 01:01.0
eR 03.3
Doubtful interpretation

eP 06:59:50.4
iS 07:00:03.2
Distance 100 Km

iP 07:24:58.4
iS 25:06.8
Dilatation SSW
Distance 70 Km

eP 10:29:32
e(S) 30:44

eP 13:21:12.9
eS 49.6
Distance 340 Km

eP 14:07:37.2
i 37.5
eS 08:18.2
Distance 380 Km

05 iPKP 03:54:48.7
Dilatation

eS 06:30:17.6
local

eP 10:15:45
eS 16:13.8
Distance about 260 Km

e(P) 10:25:07.8
eS 27.2
Distance 170 Km

eP 14:31:18.9
eS 39.4
Distance 180 Km

eP 15:57:28
eS 58:28
Distance about 580 Km

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PROVISIONAL READINGS AT ANTOFAGASTA

Oct.05 1964

iP 20:18:18.6
iS 32.4
Compression from SE
Distance 120 Km

eP 23:21:43
local

06 eP 01:58:20.1
eS 46
Compression from N
Distance 240 Km

eP 02:10:19.9
eS 42.3
Distance 200 Km

e(P) 02:18:18
eS 19:19

eP 04:12:57.8
e(S) 13:57

eP 07:23:57.1
ePP 24:45
Compression from WSW

e(P) 10:23:16
local

e(P) 14:46:03
ePP 50:34
eSKS 56:39
ePS 15:00:00
eSS 06:07
eSSS 10.0
eG 17:04
e(R) 24:38
MH 66u, 21 sec.
Magnitude about 7

eP 17:26:27.6
i 28.5
eS 44.1
Distance 140 Km

eP 17:48:44.1
eS 49:23.1
Compression
Distance 360 Km

Oct.06 1964

eP 23:44:47.6
eS 45:22
i 24.5
Distance about 310 Km

07 eP 03:54:09.2
eS 48
Distance about 360 Km

eP 09:05:38.1
iS 45.0
Small local
Distance 60 Km

eP 13:04:15.9
eS 54.8
Distance 360 Km

eP 20:35:33.8
eS 53.8
Distance 170 Km

eP 20:43:23.2
eS 02.0
Distance 360 Km

eP 21:11:54.7
local

08 eP 04:15:17.7
eS 55
Distance abou 340 Km

iP 08:43:31.7
e(S) 44:13
Compression from E

iP 14:38:25.7
iS 38:39
Compression from NE
Distance 110 Km

e(P) 17:08:38
i 44.9
e(S) 10:00
i 10:14.7

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PROVISIONAL READINGS AT ANTOFAGASTA

Oct.08 iP 20:49:43.7
1964 iS 50:26.6
Compression from S
PZ 0.07 u, 0.6 sec.
Distance 410 Km

e(P) 20:56:16
e(S) 57:42

09 ePKP 11:35:30.9
Compression

eP 11:51:11.8
eS 35.4
Distance 200 Km

eP 15:13:17.7
iS 34.5
Distance 140 Km

Oct.09 eP 15:20:19.7
1964 eS 28.9
Distance 80 Km

eP 19:10:14

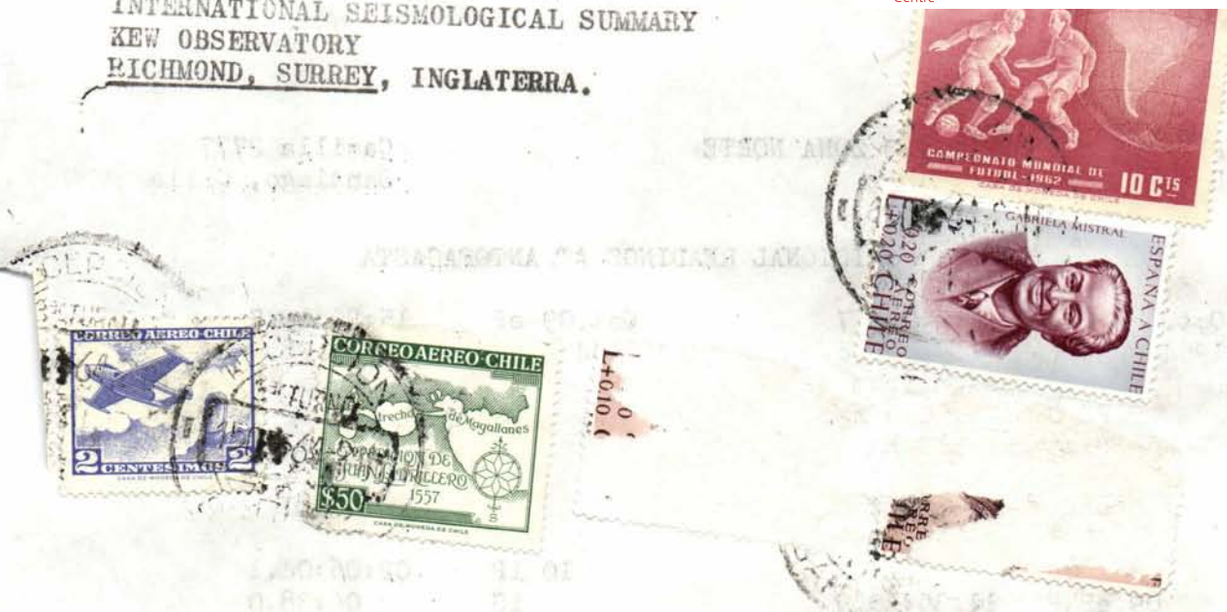
e(P) 19:33:11

10 iP 02:06:04.1
iS 06:38.0
Dilatation from S.E.
Distance 310 Km

e(P) 11:38:38.9
iS 38:49.7

J. Frez.
Seismologist.

INTERNATIONAL SEISMOLOGICAL SUMMARY
KEW OBSERVATORY
RICHMOND, SURREY, INGLATERRA.



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PROVISIONAL READINGS AT SANTIAGO.
(Santa Lucía).

Oct.11 eP 07:02:38.5
1964 eS 03:11.6
Small
Distance 310 Km

eP 12:38:44
iS 39:16.2
Distance 310 Km

eP 14:22:50
e(S) 23:16

eP 14:26:07.5
e(S) 52.5

eP 16:33:11.3
eS 21
Distance about 80 Km

iP 21:34:37.7
ePP 38:19
ePPP 40:26
eSKS 45:07
e(SP) 46:36
e 50:41
e(SS) 51:12
eSSS 57:20
eL 59:--
Compression
Distance about 90°

12 eP 00:10:25.3
iS 36.3
Distance 90 Km

eP 16:02:30.6
e(S) 44

iP 17:49:35
iS 45
Distance 80 Km

eP 22:02:15.5
ePP 03:26
eS 07:46
eG 10:04
eSSS 11:11
Distance about 36°

13 i 02:40:26.8

eP 02:40:(33.5)
eS 42.2

14 eL 04:18:40

Oct.14 eP 10:56:50.5
1964 eS 57:19.6
Distance 270 Km

e 16:48:26

15 iP 04:52:09.5
eS 32
Distance 205 Km

eP 05:56:49.3
eS 57:04
Distance about 130 Km
FELT II AT SANTIAGO

iP 09:49:22.2
eS 32
Distance about 80 Km

e 10:31:49

eP 19:13:06
eS 16.8
Small
Distance 88 Km

eP 19:39:41.7
eS 40:45
Distance about 610 Km

e(P) 20:46:37.0
e 21:08:52

eL 21:34:44

16 eP 04:35:30
eS 37:08.7
Small
Distance about 370 Km

eP 07:15:53
eS 16:19.2
Distance 240 Km

eP 07:19:19.5
ePPP 23:36
ePPS 29:11
eSS 32:56
G 36:42
R 40:07
Distance about 66°

eP 07:41:27.5

eP 07:53:58.5

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PROVISIONAL READINGS AT SANTIAGO.
(Santa Lucía).

Oct.16 1964

| | | |
|---|---|---|
| | eP | 08:37:57 |
| | e | 15:57:47,5 |
| | eP | 19:01:46.5 |
| | eS | 02:03.2 |
| | Distance 148 Km | |
| | eP | 20:43:(00) |
| | eS | 32 |
| | On minute mark | |
| 17 | iP | 01:08:54.6 |
| | iS | 09:44 |
| | Compression | |
| | Distance about 470 Km | |
| | eP | 03:37:03.4 |
| | Compression | |
| | iP | 17:26:47.5 |
| | iS | 27:04.7 |
| | Distance 152 Km | |
| | iP | 17:35:24,1 |
| | iS | 35.5 |
| | Distance 94 Km | |
| | eP | 18:46:15.8 |
| | i | 37 |
| | iS | 58 |
| | Distance 400 Km | |
| | eP | 19:38:30.4 |
| | eS | 55 |
| | Distance 228 Km | |

Oct.18 1964

| | |
|---|---|
| e | 05:31:48 |
| eP | 07:30:32.5 |
| eS | 31:46.7 |
| Distance 720 Km | |
| eP | 12:50:38 |
| eS | 53:24 |
| Distance 15° | |
| eP | 12:59:32 |
| ePP | 13:02:43 |
| e(PPP) | 06:03 |
| ePPS | 11:38 |
| eSS | 15:41 |
| eG | 21.6 |
| eR | 26:-- |
| Distance about 82° | |
| iP | 16:40:40.5 |
| eS | 55 |
| Distance 125 Km | |
| eS | 18:48:02.5 |
| eS | 30 |
| Distance 155 Km | |
| iP | 19:10:47.8 |
| iS | 11:06 |
| Compression | |
| Distance 160 Km | |
| eP | 22:42:43 |
| eS | 57 |
| Distance 120 Km | |

H. Becker
Seismologist.

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PROVISIONAL READINGS AT PELDEHUE.

Oct.11 1964
eP 05:28:49
eS 29:12
Small
Distance 230 Km

eP 07:02:30.5
eS 58.4
Distance 260 Km

eP 07:28:39.2
eS 29:18
Small
Distance 370 Km

eP 12:38:40.6
eS 39:08.5
Distance 260 Km

eP 14:22:46
e(S) 26:43

eP 16:33:00.3
iS 15.5
Distance 130 Km

e 21:34:39

12 iP 00:10:29.5
iS 41.8
Compression
Distance 100 Km

e(S) 16:02:31

eP 16:12:33
iS 13:05.8
Distance 310 Km

eP 17:49:40.3
iS 54
Dilatation ?
Distance 120 Km

eP 22:02:14.9
e 38
ePP 03:33
eS 07:45
eG 10:02
e(SSS) 11:05

13 eP 02:40:26.1
Small

Oct.13 1964
eP 02:48:26
i(Pg) 39.5
eS 49:04.8
Distance 370 Km

eP 11:59:56.6
eS 12:00:14.8
Small
Distance 160 Km

eP 12:01:13.2
iS 32
Distance 170 Km

eP 17:00:31.7
iS 01:00
Small
Distance 260 Km

eP 20:09:12
iS 31
Distance 170 Km

iP 21:55:41.9
iS 59.3
Distance 150 Km
Dilatation

14 eL 04:18:28

eP 10:56:46.6
iS 57:14.3
Dilatation
Distance 260 Km

eP 22:26:12.5
eS 36
Distance 220 Km

15 eP 01:18:32.6
eS 56
Distance 210 Km

eP 04:52:12.4
eS 36.5
Distance 220 Km

iP 05:56:47.6
iS 57:01
Dilatation from NE
Felt II at Stgo.
Distance 115 Km

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# PROVISIONAL READINGS AT PELDEHUE.

Oct.15 1964
eP 08:48:15.2
eS 57.2
Small
Distance 400 Km

iP 09:28:45.3
iS 55.4
Compression
Distance 80 Km

iP 09:49:22.8
iS 32.9
Compression from SE?
Distance 80 Km

e 10:31:50.8

16 eP 04:35:33.6
eS 37:12.8
Small
Distance 370 Km

eP 06:55:09.5
eS 18.7
Small
Distance 70 Km

eP 07:15:38.7
eS 16:08
Small
Distance 260 Km

eP 07:19:19
ePP 23:00
ePPS 29:49
SS 32:24
G 36:26
R 40:16
Distance about 66°

e(P) 07:41:25

eP 07:53:55.9
eS 55:06.5
Distance 90 Km

eL 08:05:14

eL 08:25:07

eP 08:38:07.8
Teleseism ?

eP 09:37:56.2
Teleseism?

Oct.16 1964
eP 12:30:19
e 35.2
eS 31:00
Small
Distance 390 Km

eP 15:57:13.6
eS 41.4
Small
Distance 260 Km

e(S) 16:26:14.7

eP 16:40:43.6
iS 56.2
Distance 110 Km

eP 17:42:06
eS 43.3
Small
Distance 350 Km

eP 20:43:06
eS 38
Compression?
Distance 300 Km

17 iP 01:08:51
iS 09:36
Compression from SE
Distance 430 Km

eP 03:37:04.3
Compression?

iP 05:39:52.4
iS 40:07.6
Distance 130 Km

eP 16:24:34
eS 25:09.1
Distance 330 Km

iP 17:26:44.8
iS 27:01
Dilatation fromSW
Distance 140 Km

iP 17:35:23.2
iS 34
Dilatation from NE
Distance 90 Km

eP 19:37:56.6
e 38:29
eS 48
Distance 495 Km

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## PROVISIONAL READINGS AT PELDEHUE

Oct.18 1964
eP 05:31:16
iS 44
Distance 260 Km

eP 06:53:07.5
iS 29
Small
Distance 105 Km

eP 07:30:26
eS 31:46
Distance 180 Km

eP 12:50:37
iS 53:25
Distance 15 °

eP 12:59:31
ePP 13:02:44
eS 09:46
ePPS 10:58
eSS 15:05
eG 21:22
Distance 82°

Oct.18 1964
iP 16:40:41.3
iS 59.6
Dilatation
Distance 162 Km

eP 18:48:00.2
eS 35.5
Distance 310 Km

eP 18:55:48.5
eS 56:06.2
Distance 158 Km

eP 21:31:37.5
eS 55
Small
Distance 155 Km

eP 22:38:23
iS 38
Distance 130 Km

iP 22:42:36.1
iS 50.9
Dilatation from NW
Distance 128 Km

E. Lorca
Seismologist

## PROVISIONAL READINGS AT COPIAPO

Oct.08 1964
e 14:39:10
eS 40:21

eP 17:07:47
eS 08:28
Distance 365

eP 20:49:11
eS 29
Distance 145 Km

09 e(S) 13:15:08

11 eP 09:18:23
eS 30
Distance 55 Km

Oct.12 1964
eP 21:05:33
eS 43
Distance 80 Km

L. Cabello
Seismologist

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PROVISIONAL READINGS AT CONCEPCION.

Oct.05 eP 06:13:45
1964 iS 48.5
Distance 30 Km

06 e(P) 07:27:06.5
Teleseism

08 eP 17:08:30.5

Oct.08 eP 17:09:43
1964

12 e(P) 22:09:(23)
Teleseism

A. Trautmann
Seismologist

PROVISIONAL READINGS AT GABRIEL GONZALEZ VIDELA

Oct.11 eL 22:16:26
1964

Oct.12 eL 22:16:07
1964

P. Vera
Seismologist

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PROVISIONAL READINGS AT ANTOFAGASTA.

Oct.10 1964

eP 17:31:14.0
eS 36.2
i 36.8
Distance 180 Km

eP 18:52:09.4
eS 26.9
Compression from N
Distance 150 Km

iP 19:42:48.0
eS 43:28.3
Compression

e(P) 22:52:21
i 27.3
e(S) 54:11

11 eP 03:53:17
e(S) 42

eP 07:27:31.8
eS 51
Distance about 170 Km

eP 07:25:20.7
eS 40.4
Distance 170 Km

iP 08:55:01.4
iS 13.7
Compression from N
Distance 100 Km

eP 14:20:36.6
iS 21:40.4

iP 17:22:00.2
eS 23.2
Dilatation
Distance 200 Km

eP 17:47:09.7
iS 25.6
Distance 140 Km

iP 19:22:49.2
iS 23:27.7
Compression
Distance 360 Km

iP 19:47:35.6
eS 48:16.2
Distance 380 Km

Oct.11 1964

ePKP 21:34:56
i 35:02.5
ePP 39:29
ePPP 42:53
eSS 58.2
eSSS 22:04.3:--
eG 18
e(R) 28.9

iP 21:57:53.6
iS 58:07.3
Dilatation
Distance 120 Km

eP 21:59:44.9
eS 22:00:25
Distance about 380 Km

12 iP 01:09:55.3
eS 10:43
Distance about 460 Km

iP 04:42:21.0
eS 43:00
Distance about 370 Km

iP 06:40:46.3
i(S) 58.1
Dilatation from NNW

iP 07:04:05.1
eS 45
Dilatation
Distance 380 Km

eP 09:53:38
eS 54:36.7
Distance about 580 Km

iP 11:30:24.5
eS 59
Distance about 310 Km

eP 15:10:24.4
e(S) 55.5
Distance about 280 Km

eP 15:27:47.6
eS 59.2
Distance 100 Km

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# PROVISIONAL READINGS AT ANTOFAGASTA.

Oct.12 1964

ePKP 16:02:(57)
e(SKSP) 16:03
eSS 26:11
eG 43.5
e(R) 55.5
From WWS

eP 16:33:57.1
iS 34:08.7
Distance 190 Km

eP 18:47:02.5
eS 39.9
i 41.7
Distance 350 Km

eP 19:12:37.8
iS 49.4
Distance 100 Km

eP 22:02:36.4
ePP 04:03
e 07:48
i(S) 08:22
iG 10.9
iR 12.1
Doubtful interpretation
PZ 0.36 u, 1.8 sec.

13 eP 00:16:38
eS 17:13.8
Distance about 330 Km

eP 00:34:16.1
iS 27.4
Distance 90 Km

eP 06:41:40.2
i 40.6
iS 42:15.1
Compression
Distance 320 Km

eP 08:36:37.4
eS 37:23.1
Dilatation from E
Distance 440 Km

eP 11:09:28.0
eS 52.4
Dilatation from E
Distance 210 Km

eP 13:44:10.0
eS 25.7
Distance 130 Km

eP 13:51:09.6
local

Oct.14 1964

e(P) 01:06:03.5
i 05.0
e(S) 27.3

ePKP 03:24:53

eG 04:13
eR 17.6
From W

e(P) 04:21:36.5
i 37.8
iS 58.8

eP 07:07:34.2
eS 09.8
Distance 330 Km

eP 09:41:00.9
eS 22.7
Distance 190 Km

e(P) 09:48:27
eS 41.2

eP 13:10:13
local

iP 16:40:55.4
iS 00.9
Compression from NE
Distance 40 Km

eP 19:30:01
e(S) 26.5

15 eP 01:07:10.0
eS 45.0
i 46.0
Compression from EES
Distance 320 Km

e(P) 05:58:44
local

eP 13:09:10.4
eS 46
Distance about 330 Km

iP 17:15:12.4
iS 18.4
Dilatation from SW
Distance 50 Km

eP 17:34:17.2
eS 44.5
Distance 240 Km

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PROVISIONAL READINGS AT ANTOFAGASTA

Oct.15 1964

eP 19:39:09.1
e(S) 40:20.6
P Z 0.06 u, 0.6 sec.

e 20:49.8
e(SKKS) 55:32
e 57:40
eSS 21:07.7
eSSS 13.0
e(G) 23
e 25:48
eR 32:47
i 35:40
MH 7.8u, 21 sec.
Magnitude about 6 1/4

16 eP 04:05:19.4
iS 36.2
Distance 140 Km

ePKP 07:19:02
ePP 22:16
eSKKS 28:56
eSS 40:36
eSSS 46.1
eG 57
eR 08:04.5
i 08:07
MH 27.6 u, 18.5 sec.
Magnitude about 6 3/4
Distance 143°

eP 07:43:18.5
eS 42.1
Distance 210 Km

eP 07:53:46
eS 54:49
Distance about 620 Km

eP 10:19:10.1
e(S) 31.1
Distance about 180 Km

eP 14:03:12.5
eS 28.7
i 29.3
Distance 130 Km

iP 18:52:48.9
iS 56.6
Compression from SSW
Distance 70 Km

eP 21:42:31
eS 43:00.8
Distance about 270 Km

Oct.17 1964

eP 00:23:37,3
i 37.8
iS 24:20.1
Distance 400 Km

eP 00:48:32
eS 48.7
Distance about 140 Km

eP 01:09:19.0
e(S) 10:24
PZ 0.05 u, 0.7 sec.

eP 02:15:38.9
eS 16:00.6
Distance 190 Km

eP 02:36,4

e(PKP) 03:37:18
i 42.6

eP 07:37:13.8
i 14.4
eS 38:03.8
Distance 480 Km

eP 09:39:14
eS 40:02.0
Distance about 460 Km

eP 10:43:43
i 47.0
eS 58.1
Distance about 120 Km

eP 13:03:46.6
e(S) 04:03.1
i 07.2

ePKP 15:20:36.2
Compression

eP 19:38:09
local

eP 22:07:51.1
eS 08:25.7
i 30.3
Distance 320 Km

iP 23:11:47.0
i 51.9
i(S) 53.1
Dilatation from NW

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# PROVISIONAL READINGS AT SANTIAGO

(Santa Lucía)
33° 26' 40" S
70° 38' 54" W
h= 581 mts.

Oct.19 1964
iP 03:20:07.3
iS 27
Compression
Distance 178 Km

eP 05:43:53.7
eS 44:09
Distance 132 Km

eP 08:29:39.4
eS 30:03.4
Distance 220 Km

iP 18:38:53.1
iS 39:12
Dilatation
Distance 170 Km

iP 21:18:53.2
iS 19:48
Compression
Distance 530 Km

20 e 03:58:50.8

eP 04:57:08
eS 28.3
Distance 182 Km

iP 12:45:02.5
eS 12
Distance 75 Km

e 15:05:10.5

21 iP 00:22:40.6
eS 23:10
Distance 274 Km

e 02:06:58

e 02:48:34

iP 15:14:06.6
eS 2.2
Distance 134 Km

e(PKP) 23:34:08
e 41:24
e 54:42
e 00:07:30
Doubtful interpretation

Oct.22 1964
iP 02:37:25.5
eS 42.3
Distance 148 Km

e 09:18:45

eP 13:53:(45)
eS 54:13.5

eP 15:35:10
eS (24)

eP 23:30:46.4
iS 31:00
FELT 111 AT STGO.
Distance 116 Km

23 iP 02:05:31.4
epP 42
e(PcP) 06:16
ePP 07:46
ePPP 08:52
iS 13:06
eSPP 40
eScS 15:00
e(SS) 17:20
eG 18:24
eQ 46
eSSS 53
eR 21:36
Distance 56°
u= 45.5, 25 sec.
Mg= 6 3/4

iP 08:32:58
iS 33:04.3
Dilatation
Distance 41 Km

eP 10:09:02
eS 17
Distance 130 Km

eP 12:07:31.4
eS 54
Distance 206 Km

eP 13:00:34

eP 14:04:25
eS 44.8
Distance 178 Km

Oct.23 1964
eP 21:26:06.2
eS 27.2
Distance 190 Km

24 eP 07:52:53.9

eP 10:41:06.5
eS 29.4
Distance 210 Km

eP 16:21:30.6
eS 48.9
Distance 162 Km

eP 17:21:43
eS 22:09.3
Distance 242

eP 19:26:42.1
eS 27:03
Distance 188 Km

25 eP 06:32:00
On minute mark

iP 10:10:27.3
eS 38
Dilatation
Distance 87 Km

eP 17:21:49
eS 56.4
Compression
Distance 54 Km

eP 21:31:23
eS 40
Distance 150 Km

iP 22:47:06
iS 19
Distance 110 Km

26 i(P) 14:42:32

27 iP 12:27:11.8
eS 40
Distance 262 Km

eL 22:15:--

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## PROVISIONAL READINGS AT SANTIAGO
(Santa Lucia)

Oct.27 1964
eP 22:41:(43.5)
eS 45:16
eSS 47:08
eSSS 48:17
eR 38
Distance about 26°

H. Becker
Seismologist

## PROVISIONAL READINGS AT PELDEHUE

33° 08' 37" S
70° 41' 07" W
h= 690 mts

Correction

Oct.16 1964
ePKP 07:19:19
ePP 23:00
eSKKS 29:49
e 32:55
e 40:29
e(SS) 41:52
e 45:54
eL 08:00:26

Oct.19 1964
eP 02:39:21.5
e(S) 40:03

iP 03:20:05.6
iS 35
Compression from SW
Distance 275 Km

eP 05:43:54.2
eS 44:13.7
Compression
Distance 175 Km

eP 08:29:34.9
eS 54
Distance 170 Km

eP 12:53:36
eS 54:04.2
Small
Distance about 260 Km

iP 18:38:50
iS 39:10.2
Dilatation from NW
Distance 180 Km

iP 21:18:57.7
iS 19:52
Dilatation
Distance 530 Km

20 eP 03:58:27.6
e 43.2
eS 59:04.5
Distance 350 Km

Oct.20 1964
eP 04:57:06
eS 22.1
Distance 140 Km

eP 12:45:06.1
iS 21.7
Distance 135 Km

iP 15:05:09.5
Compression
Local

Long period seismographs shorted at 18:56

21 iP 00:22:45.4
iS 23:14.8
Dilatation from S
Distance 275 Km

e(P) 02:06:43
eS 08:26

eP 02:48:26.5
eS 49:22.5
Distance 545 Km

eP 03:31:51.4
eS 32:58.6
Distance 560 Km

iP 15:14:03.7
iS 17.2
Dilatation from NW
Distance 115 Km

eP 20:35:44
eS 36:00.6
Distance 145 Km

iPg 21:20:39.4
iSg 42.2
Compression
Distance 25 Km

Oct.21 1964
e(PKP) 23:29:27.5
ePP 34:17
ePPP 41:15
e(SKS) 44:39
e 48:16
e 55:09
e 00:07:46
eL 24:00
Two shocks ?

22 iP 02:37:22.7
iS 37.2
Dilatation from NW
Distance 125 Km

e 09:18:42

eP 11:53:44.7
eS 54:02.4
Small
Distance 158 Km

eP 12:45:56.7
iS 46:08.1
Small
Distance 95 Km

eP 13:53:41.9
iS 54:10
Distance 260 Km

eP 15:35:12.4
iS 31.9
Dilatation ?
Distance 175 Km

iP 23:30:45.6
iS 31:01
Dilatation from SW
Distance 135 Km
FELT III AT STGO.

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PROVISIONAL READINGS AT PELDEHUE.

Oct.23 1964

eP 02:05:29.4
e(pP) 06:06.6
ePcP 27
ePP 07:34
eS 13:06
eScS 15:10
eSS 16:56
eQ 18:51
eSSS 19:22
eR 20:53
Distance about 55°

eP 08:32:53.5
iS 33:04.4
Distance 90 Km

eP 10:09:01
eS 56.5
Dilatation from NE
Distance 540 Km

eP 12:07:23
iS 43.4
Distance 185 Km

eP 12:42:44.2
eS 43:19.5
Distance 330 Km

eP 13:00:31.3
e(S) 01:32.5

e(P) 14:04:27.8
eS 42.5

e(P) 21:26:06

24 eP 07:52:52.9
iS 53:05.8
Distance 110 Km

eP 10:41:04
iS 24.4
Distance 185 Km

eP 14:36:38
eS 37:07.6
Small
Distance 275 Km

e(P) 15:23:32.9

Oct.24 1964

eP 16:21:27.5
iS 42.5
Distance 130 Km

iP 17:21:40.2
iS 22:04.5
Compression
Distance 225 Km

iP 19:26:39
iS 54
Dilatation from NW
Distance 130 Km

eP 22:22:(18.6)
eS 24:28.3
Small

iP 22:54:13.7
iS 36.7
Dilatation
Distance 210 Km

25 iP 00:50:52.2
iS 51:01
Compression from N ?
Distance 68 Km

iP 01:21:51.5
iS 22:06.7
Dilatation
Distance 130 Km

eP 06:31:58.5
i 32:06.5
eL 39:04

iP 10:10:27.4
iS 40.8
Dilatation
Distance 115 Km

iP 17:21:44.7
iS 50.5
Dilatation from NE?
Distance 36 Km

eP 18:44:28
eS 36.2
Small
Distance 62 Km

Oct.25 1964

iP 21:31:20.7
iS 36.8
Compression from SW
Distance 140 Km

iP 22:47:09.6
iS 24.3
Dilatation from SW
Distance 126 Km

26 eP 03:25:39.5
eS 26:02.5
Distance 210 Km

eP 03:56:18.4
eS 32.5
Distance 120 Km

eP 04:28:39.3
eS 57.5
Distance 160 Km

iP 04:40:57.4
eS 41:24.1
Distance 248 Km

eP 08:23:10.6
eS 30.7
Distance 180 Km

eP 14:42:32.3

eP 16:10:43.7
eS 11:23.6
Distance 380 Km

E. Lorca
Seismologist

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# PROVISIONAL READINGS AT ANTOFAGASTA

23° 42' 18" S
70° 24' 55" W
h= 80 mts.

Oct. 18 1964

eP 02:00:40.0
eS 59.7
Distance 170 Km

eP 02:46:16.1
eS 53.2
Distance 340 Km

ePKP 02:54:59.0
e 55:07.4
Compression ?

eP 04:03:43.7
eS 04:19.9
Distance 330 Km

eP 06:57:31.1
eS 44.4
Distance 110 Km

iP 10:42:44.5
eS 43:25.1
Compression from E
Distance 370 Km

eP 12:51:02.2
Uneasy interpretation ?
PZ 0.78u, 1.4 sec.
Dilatation from SSE

iP 16:09:22.7
iS 27.1
Compression from SW
Distance 40 Km

eP 20:58:22.9
eS 59:11
Compression ?
Distance 460 Km

19 eP 02:15:40.8
e(S) 16:10.8
Distance about 270 Km

iP 11:25:34.2
iS 41.2
Compression from N
Distance 60 Km

eP 13:06:23.5
local

iP 15:19:28.6
eS 20:13.9
Distance 420 Km

Oct.19 1964

e(P) 18:40:50.4
i 52.2
e(S) 42:30

e(P) 21:21:02.6
eS 23.5

20 eP 05:15:28.5
eS 45.5
Compression
Distance 150 Km

iP 11:48:25.7
iS 30.9
Compression from N W
Distance 40 Km

eP 14:14:41.0
eS 15:03
Distance about 190 Km

21 iP 02:05:30.2
local
Compression from S

iP 02:48:30.7
e(S) 49:24
i 33.5
Compression

eP 05:10:22.5
eS 11:00.6
Distance 350 Km

eP 14:56:45.4
eS 57:01.1
Distance 130 Km

iP 18:25:02.7
eS 50.4
Compression from NNE
Distance 400 Km

ePKP 23:29:42
ePP 34:07
eSKSP 44.6
ePSP 47:51
eSS 54:40
eSSS 00:00.5
Distance about 161°
MH=6.83 u, 22 sec.
Magnitude about 6

Oct.22 1964

eP 03:03:27.7
iS 56.4
Compression from SEE
Distance 250 Km

eP 03:56:15
iS 29.3
Distance about 110km

iP 10:05:32.3
eS 06:01.1
Compression from N
Distance 260 Km

iPKP 10:14:40.2
Dilatation

ePKP 11:19:53
Compression

eP 14:01:53.2
eS 02:18
Distance about 210km

eP 14:27:08.6
eS 48.9
Compression
Distance 360 Km

eP 15:24:14.5
i 15.1
eS 53.8
i 25:57.9
Distance 350 Km

eP 19:42:27,5
eS 43:03.1
i 03.9
Dilatation ?
Distance 310 Km

eP 23:26:26.1
i 27.1
eS 27:43.1
Distance 140 Km

e(P) 23:33:01
e(S) 34:48

23 eP 01:48:45.0
eS 49:28.0
Distance 400 Km

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# PROVISIONAL READINGS AT ANTOFAGASTA.

Oct.23 1964
eP 02:04:20
ePcP 05:56
ePP 06:19
e(PPP) 07:12
e 09:58
iS 10:57
eSS 14:17
eG 14.5
e(R) 17.7
Distance 45°
Compression from NNW

eP 12:33:19.6
eS 36
Dilatation
Distance 130 Km

eP 15:01:43.5
eS 02:19.8
Dilatation
Distance 330 Km

iP 17:30:58.6
eS 31:36.5
Compression from E
Distance 340 Km

eP 18:59:23.3
eS 43.6
Distance 180 Km

eP 20:03:04.6
iS 11.1
Compression from E
Small local
Distance 60 Km

eP 20:11:26.6
eS 49.1
Distance 200 Km

e(PKP) 21:25:52.7
Dilatation

eP 21:27:07.3
eS 44.7
Distance 340 Km

24 eP 03:01:06
eS 25.2
Distance about 160 Km

Oct.24 1964
eP 03:52:05.2
iS 10.5
Small local
Distance 50 Km

eP 04:13:35.8
eS 14:13
Small local
Distance about 340 Km

eP 06:27:49.8
eS 28:27.4
i 29:28.5
Distance 340 Km

eP 06:56:42.7
i(S) 48.1

eS 06:58:04.7

eP 07:15:15
eS 59.7
Distance about 430 Km

eP 07:20:21.2
local
Dilatation

e(P) 09:03:16.6
eS 38.0
Distance about 190 Km

e(P) 16:42:31
eS 54.6

eP 18:25:29.0
eS 47.2
Distance 150 Km

eP 22:20:34.8
iS 47
Compression from SSE ?
Distance 100 Km

25 iP 06:30:38.1
eS 34:38
e(G) 35:29
Dilatation from N
PZ 0.49 u, 0.9 sec.
Magnitude about 6
Distance 23°

Oct.25 1964
e(P) 10:48:24
eS 49:04.3

eP 11:04:26.4
eS 55.9
Distance 260 Km

eP 16:31:19
e(S) 51
i 53.3

e(P) 21:34:31.9
eS 59.4
Distance about 240km

eP 23:01:35
i 38.0
eS 05:47
Distance 24°

26 eP 03:05:50
local

iP 07:31:23.2
eS 32:02.1
Compression from E
Distance 350 Km

J. Frez
Seismologist

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## PROVISIONAL READINGS AT SOMBRERO

Oct.06 NOTHING
1964

07 NOTHING

08 eP 07:14:25.5
e 15:46.5

09 NOTHING

10 NOTHING

11 FUSE IN LAMP
INVERTER BLEW

12 FUSE IN LAMP
INVERTER BLEW

13 NOTHING

14 NOTHING

15 eP 00:20:58
eS 21:23.6
Distance 236 Km

Oct.15 e 21:37:28
eL 40:--

16 ePKP 07:19:21
epPKP 36
ePP 22:33
ePKS 52
eSKKS 29:30
e(SP) 33:04
ee 39:27
eSSP 43:17
e 44:28
eSSS 49:12
eL 58:12
eR 08:07.0
Distance about 150°

Oct.17 NOTHING
1964

18 eP 12:50:12
eSKS 13:00:40
eSS 02:06
eSP 04:07
eSSS 12:16
eR 21:--
Distance about 97°

19 NOTHING

H. Becker
Seismologist

## PROVISIONAL READINGS AT COPIAPO.

27° 21' 15" S
70° 21' 04" W
h= 384 mts

Oct.15 eP 19:38:29
1964 eS 44
Distance 120 Km

17 eP 01:08:37
eS 09:06
Distance 240 Km

e(S) 07:58:49

Oct.17 eP 18:46:47
1964 eS 59
Distance 95 Km

eP 19:37:18
eS 36
Distance 145 Km

Power failure
Oct.20 and 21

L. Cabello
Seismologist

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PROVISIONAL READINGS AT CONCEPCION

36° 49' 41" S
73° 02' 42" W
h= 15 mts.

Oct.15 eS 05:58:31
1964 Small

16 eP 07:04:27.5
eS 36
Small
Distance 65 Km

eP 21:45:42.5
eS 52
Small
Distance 75 Km

Oct.18 eP 07:[illegible]
eS 40
Small
Distance 120 Km

19 iP 21:18:04.5
iS 10.5
FELT 1V AT CONCEPCION
Distance 40 Km

iP 21:18:04.5
iS 10.5
Distance 50 Km
FELT 1V

Oct.21 eP 00:22:35.5
1964 eS 58
Distance 185 Km

eP 03:30:57.7
eS 31:03.2
Distance 43 Km

A. Sickinger
Seismologist

PROVISIONAL READINGS AT GABRIEL GONZALEZ VIDELA

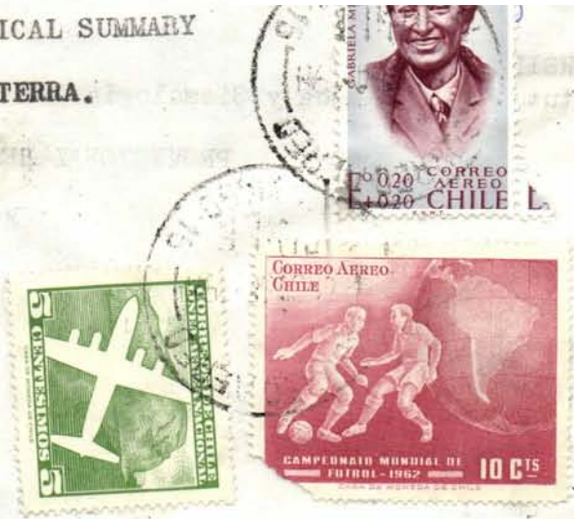
64° 49' 13" S
62° 50' 54" W
h= 4 mts

Oct.27 eL 21:59:19
1964

e(P) 22:39:(07)
ePP 40:31
ePPP 49
e(S) 44:(45)
eG 46:32
eQ 46
Distance about 35°

P. Vera
Seismologist.

INTERNATIONAL SEISMOLOGICAL SUMMARY
KEW OBSERVATORY
RICHMOND, SURREY, INGLATERRA.



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# PROVISIONAL READINGS AT SANTIAGO.
(Santa Lucía).

Oct.28 1964
eP 13:26:53.7
eP 15:25:15
iS 23.8
Small
Distance 68 Km

iP 19:30:19.5
iS 43.9
Dilatation
Distance 225 Km

eP 19:36:32
i 42.5
eS 51.3
Distance 175 Km

eP 22:36:36.5
iS 37:06
Distance 275 Km

29 Nothing

30 eP 00:24:22.8
e 30.5
eS 25:31
Distance 660 Km

eP 01:38:35.5
i 46.7
iS 39:10
Compression
Distance 325 Km

eP 01:48:32.2
eS 49:(00)
On minute mark

iP 02:23:11.4
eS 28.1
eR 24:05
Distance 140 Km

eP 04:24:51.5
eS 59.5
Distance 60 Km

e 04:59:48

Oct.30 1964
eP 07:42:13
eS 57.5
Distance 425 Km

eP 16:13:43
e 50.5
eS 14:40
Distance 550 Km

eP 23:11:17
eS 57
Distance 380 Km

31 e 12:14:49.5

eP 19:40:16.8
eS 53
Distance 340 Km

Nov.1 1964
iP 07:56:45.3
eS 57:(00)
Compression
On minute mark

eP 12:45:37.9
e(S) 46:06
Compression

eP 23:10:26
eS 41
Distance 130 Km

2 No record SP and L.P.E.W.

e 06:57:24
i 07:01:52

eP 11:05:11.6
e(S) 22.8

3 eP 13:02:24

eP 20:37:37
e(S) 48

4 eP 02:14:38
e 44.5

e 06:12:29.5
e(S) 54.7

Nov. 4 1964
eP 11:11:47.5
eS 12:16
Distance 265 Km

e(P) 13:36:20.5
eS 37:22.5

5 eP 19:24:00
eS 22
On minute mark

eP 20:34:19.7
eS 30.5
Distance 88 Km

6 eP 04:45:35
eS 45.3
Compression
Distance 180 Km

eP 10:13:(00)
On minute mark

iP 16:14:23.5
eS 33.2
Distance 78 Km

eP 16:26:44.8
iS 55.2
Distance 84 Km

eP 16:34:08

7 iPn 02:36:09.5
iPg 16.7
iSn 54.2
Compression
Distance 490 Km

iP 03:48:56.5
eS 49:28
Dilatation
Distance 295 Km

8 e 09:38:20.5

eP 10:24:50.2
eS 25:14.6
Distance 225 Km

e 17:53:45.5

H. Becker
Seismologist.

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# PROVISIONAL READINGS AT PELDEHUE.

Nov. 1 1964

eP 12:45:39.2
Teleseism?

iP 17:20:00.2
iS 12.1
Distance 98 Km

eP 23:10:27.5
e 35.4
eS 42.6
Distance 130 Km

2 eP 06:56:57.5
e(pP) 57:18.2
ePPP 58:02
eS 07:01:46
eSS 03:20
eR 04:38
Distance 30°

iP 09:55:49.7
iS 56:02
Dilatation ?
Distance 102 Km

iP 11:05:12
i 47.2
iS 31.3
Dilatation
Distance 172 Km

eP 11:26:32.8
iS 47.2
Small
Distance 124 Km

eP 12:09:38.5
eS 56.6
Dilatation
Distance 160 Km

eP 12:20:21.4
eS 59.8
Small
Distance 364 Km

iP 17:48:46.3
iS 49:08
Compression
Distance 197 Km

eP 20:10:47.8
eS 11:02
e 13.6
Distance 121 Km

Nov. 3 1964

eP 01:01:40.8
eS 52.2
Small
Distance 95 Km

eP 13:02:25
e 36.9
Teleseism?

eP 20:25:20
e(S) 26:19.5

iP 20:37:42.6
iS 38:00.7
Compression?
Distance 160 Km

4 eP 02:14:34.4
e 41.2
eS 17:21.5
e 18:01
Compression
Distance 15°

eP 06:12:26.5
iS 49.4
Compression
Distance 210 Km

eP 11:11:44
iS 12:07.4
Distance 215 Km

eP 13:36:11.5
eS 37:26
Dilatation
Distance 735 Km

iP 16:14:07.8
iS 28.6
Small
Dilatation
Distance 190 Km

eP 21:22:22.4
e(S) 42.7
Small

5 eP 00:28:27.2
iS 49
Distance 200 Km

eP 01:51:32.1
iS 50
e 52:19.5
Distance 160 Km

Nov. 5 1964

eP 03:56:40.1
eS 57:02.1
Distance 200 Km

eP 14:17:05.2
iS 09.3
Distance 10 Km

e(P) 16:14:58
eS 15:09.2

eP 18:34:31.7
iS 48.5
Small
Distance 150 Km

eP 19:24:04
iS 27.7
Distance 218 Km

iP 20:34:24.8
iS 39.2
Compression
Distance 124 Km

eP 20:54:52.1
eS 55:24.5
Distance 302 Km

eP 23:25:48.8
eS 59
Small
Distance 82 Km

6 iP 04:45:32.3
iS 50.5
e 46:37
Compression from SW
Distance 160 Km

eP 10:31:01
Seismic?

iP 16:14:28
iS 40.7
Compression
Distance 107 Km

iP 16:26:50.2
iS 27:03.7
Dilatation
Distance 115 Km

eP 16:34:03.7
Dilatation

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## PROVISIONAL READINGS AT PELDEHUE.

Nov. 6 1964
iP 16:39:53.3
iS 40:06.8
Small
Distance 115 Km

eP 17:40:02.3
eS 20.1
Small
Distance 160 Km

eP 18:45:28.9
eS 46:04.3
Small
Distance 335 Km

eP 20:44:55
iS 45:12.8
Distance 160 Km

Nov. 7 1964
eP 00:04:34
e(S) 05:05.5
Small

eP 00:45:35
e(S) 46:14
Small

iP 02:36:05.5
iS 51.4
Dilatation
Distance 440 Km

iP 03:48:57
iS 49:28.2
Dilatation
Distance 290 Km

Nov. 7 1964
eP 16:59:59.2
iS 17:00:38.7
Small
Distance 365 Km

eP 18:29:09.4
iS 19
Small
Distance 75 Km

E. Lorca
Seismologist.

## PROVISIONAL READINGS AT SOMBRERO.

Oct.21 1964
eL 18:20:--

eP 23:42:36.4
eS 43:02.4
Distance 240 Km

22 ePP 20:07:35
eSP 16:14
ePPS 17:07
e(SS) 21:04
eSSS 26:08
eG 30:06
eR 37.0
Distance 100°

24 eP 07:35:15.6
eS 36:15.7
Distance 580 Km

27 eL 16:03:--

Oct.27 1964
iP 16:37:44.2
iPP 50
iPPP 38:04
iS 39:23
Dilatation from SW
Distance 9°
PZ 87 mm., 1.6 sec.
Amplification 6.25 K

iP 18:13:45.2
Seismic?

28 eP 08:18:33.4
eS 19:42.4
Small
Distance 670 Km

29 e(P) 20:22:16
e(SSS) 24:28
eR 25:(50)

31 eL 18:26:00

Nov. 1 1964
eL 04:17:--

eL 07:27:--

eP 11:48:06
ePP 13.5
ePPP 35
eS 50:40
e(SS) 54
eSSS 51:05
eR 36
Distance 13.2°

2 eP 00:59:38.5
eS 01:00:06
Distance 255 Km

3 eP 18:53:43.5
e(S) 54:12.5

eP 20:53:23.5
eS 51.5
Distance 260 Km

4 eP 07:31:31

H. Becker
Seismologist.

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## PROVISIONAL READINGS AT COPIAPO

27° 21' 15" S
70° 21' 04" W
h= 384 mts.

Oct. 27 1964 eP 20:43:17
eS 23
Distance 50 Km

28 eP 00:22:49
eS 18
Distance 240 Km

29 eP 16:25:06
eS 13
Distance 55 Km

Oct.30 1964 e 02:25:32
eL 29:53

eP 23:53:03
eS 19
Distance 130 Km

31 eP 01:31:55
eS 32:02
Distance 65 Km

Nov. 2 1964 e(S) 12:05:19

L. Cabello
Seismologist

## PROVISIONAL READINGS AT CONCEPCION.

Oct.27 1964 eP 19:28:05

eP 22:45:(23.5)
Teleseism

29 iP 09:49:44.5

30 eP 01:49:02.5
eS 13.5
Distance 90 Km

Oct.30 1964 eP 02:22:(49)
Teleseism

eP 15:08:17.5
eS 23.5
Distance 50 Km

Nov.1 1964 eP 05:02:10
iS 14.5
Distance 35 Km

Nov. 3 1964 eP 05:01:20.2
eS 24
Distance 32 Km

4 eP 13:35:15.8
eS 27.8
Distance 95 Km

A. Sickinger.
Seismologist

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# PROVISIONAL READINGS AT ANTOFAGASTA

23° 42' 18" S
70° 24' 55" W
h= 80 mts.

Oct.26 1964
eP 15:10:52.7
eS 11:56.7
From NE ?
PZ 0.04 u, 0.6 sec.
Distance 630 Km

eP 17:46:33.5
eS 47:19.8
Compression
Distance 440 Km

iP 18:19:33.9
iS 42.7
Compression
Distance 80 Km

eP 20:42:14.8
i(S) 36.0

27
eP 01:32:29
eS 33:06.3
Distance about 330 Km

iP 04:54:09.6
i(S) 30.4
Compression from E

eP 06:04:51
local

iP 06:13:38.0
iS 14:10.8
Dilatation from N
PZ 0.33 u, 0.6 sec.
Distance 300 Km

eP 06:18:01.3
eS 38.3
Distance 330 Km

eP 07:19:13.6
eS 36.3
Compression
Distance 200 Km

eP 08:23:31.7
iS 44.2
Compression
Distance 100 Km

eP 09:21:05
eS 20
Distance 120 Km

No record from 12:15 to 22:30 27-X-64. Power failure.

Oct.28 1964
eP 00:23:33.1
i(S) 24:37
PZ 0.10 u, 0.8 sec.
from S

iP 03:55:04.8
iS 40.0
Dilatation from E
Distance 310 Km

eP 13:13:30.2
eS 57.6
Distance 240 Km

iP 16:51:47.5
eS 27.5
i 28.2
Compression from E
Distance 360 Km

e(P) 20:50:25.5
eS 51:06.1

iP 22:46:11.1
eS 49.4
Compression from E
Distance 350 Km

29
eP 03:15:00.4
eS 26
Distance about 230 Km

eP 05:37:11.3
i(S) 37.6

eP 07:38:50.7
eS 57.8
Dilatation from S
Distance 50 Km

iP 10:04:50.3
eS 05:30.8
Compression
Distance 370 Km

iP 19:06:50.3
iS 07:32.3
Compression
Distance 400 Km

Oct.30 1964
i(PKP) 00:26:31.8
Compression

eP 00:41:57
e(S) 42:30.0

iP 01:48:26.3
iS 45.7
Compression from ENE
Distance 170 Km

e(P) 02:17:23
i(S) 22:55
eG 25.0
eR 26.7
(Distance about 35°)

eP 09:27:32
eS 58.5
Distance about 240Km

eP 14:56:08.6

eP 16:11:52
eS 12:26
Distance about 310 Km

e(P) 16:14:37.6
local

eP 18:55:52.4
eS 56:19.2
Distance 230 Km

31
eP 00:50:29.1
eS 57.9
Distance 260 Km

eP 02:02:28.8
eS 03:02.1
Distance 300 Km

eP 02:35:11.1
e(S) 31
i 35.3

eP 03:18:42.1
e(S) 19:13.5

eP 16:16:02.8
eS 57.9
Compression
Distance 530 Km

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# PROVISIONAL READINGS AT ANTOFAGASTA.

Oct.31 1964
eP 17:19:05
local

eP 17:44:36.8
eS 52.8
Distance 150 Km

eP 18:21:00.9
e(S) 30

e(P) 19:41:21
e(S) 42:43
eR 57.5
(Distance about 7°)

eP 19:55:13.2
iS 17.8
Dilatation
Distance 40 Km

iP 20:14:20.3
iS 16.6
Compression from ENE
Distance 50 Km

eP 20:24:36
eS 45.5
Distance about 80 Km

Nov. 1 1964
eP 01:52:05
e(S) 33

eP 02:24:41.0
eS 51.9
Distance 90 Km

eP 02:37:08.8
e(S) 43.3

ePKP 12:45:53
i 57.6
e(PP) 49:37
ePSP 13:02:52
eSS 09:06
eSSS 14:47
eG 25.5
eR 35
Distance 152°

eP 18:31:45.2
eS 32:20.9
i 21.9
Compression
Distance 330 Km

Nov. 2 1964
eP 00:14:46
iS 15:00.1
Distance about 120 Km

iP 00:44:46.9
e(S) 45:26.6
Dilatation from E

iP 04:28:43.6
eS 29:30.3
Dilatation from E
Distance 450 Km

ePKP 05:23:22.8
Compression

eP 06:03:10
e(S) 04:03.5

eP 06:50:15.2
eS 52.2
Distance 330 Km

eP 06:53:53.4
eS 54:20.5
Compression from E
Distance 240 Km

eP 06:55:32.8
ePP 56.5
e(S) 59:13
i 17
i 58
Dilatation from N
Distance about 22°

eP 09:14:48.5
eS 15:24.3
Distance 320 Km

eP 11:39:15.7
eS 26.7
Distance 90 Km

eP 12:38:30.3
e(S) 39:07

eP 17:28:26.7
eS 53
Distance about 210 Km

e(P) 18:42:14

Nov. 2 1964
iP 19:25:20.2
e(S) 55.4
i 56.5
Compression from SE

eP 23:18:23
eS 58
Distance about 320 Km

3 ePKP 02:05:27.3
Dilatation

e(P) 07:05:26.7
local

eP 08:02:22.7
iS 39.0
Compression from SE
Distance 130 Km

eP 09:09:32
eS 10:03
Distance 280 Km

eP 17:53:25.5
eS 43.7
Distance 150 Km

iP 18:03:33.3
iS 04:15.4
Compression from E
Distance 400 Km

eP 18:57:56.5
eS 58:36.3
Compression
Distance about 360 Km

eP 19:52:30
iS 35.0
Distance about 40 Km
Small local

eP 22:35:48
eS 36:09.4
Distance about 180 Km
Small local

4 eP 02:12:25.3
i 26.7
e(S) 13:06
Dilatation from NNW

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PROVISIONAL READINGS AT ANTOFAGASTA.

Nov. 4 1964
eP 04:05:51
eS 06:26.7
Distance about 330 Km

eP 06:01:18.5
iS 02:09.1
Compression from E
Distance 490 Km

eP 10:18:17.2
eS 43.7
Distance 230 Km

iP 13:32:33.0
iS 39.9
Dilatation from WSW
Distance 60 Km

5 eP 01:26:56
eS 27:26
Distance 270 Km

eP 03:36:15
eS 34
Distance about 200 Km

eP 04:36:24
eS 41
Distance about 140 Km

iP 06:09:41
iS 10:21
Compression from SSE
Distance 360 Km

ePKP 07:05:54
Dilatation

Nov. 5 1964
eP 07:10:53
eS 11:22
Distance about 260 Km

eP 08:39:49
eS 40:26
Distance about 340 Km

ePKP 08:54:37
Compression

iP 10:41:35.3
iS 42:01
Dilatation from E
Distance about 230 Km

eP 13:13:05.7
eS 14:33
Distance about 320 Km

eP 13:32:01
local

6 iP 16:30:13.7
iS 57.7
Compression from NE
Distance 410 Km

7 eP 05:01:37.1
iS 02:08.1
Distance 280 Km.

iP 09:22:33.3
i(S) 48.1
Compression from SSE

Nov. 7 1964
eP 12:54:34.0
eS 49.9
Dilatation
Distance 130 Km

eP 13:01:02.8
eS 41.2
Dilatation
Distance 350 Km

eP 18:30:55.8
eS 31:32
Distance about 320 Km

eP 18:48:12
eS 39.1
Distance about 240 Km

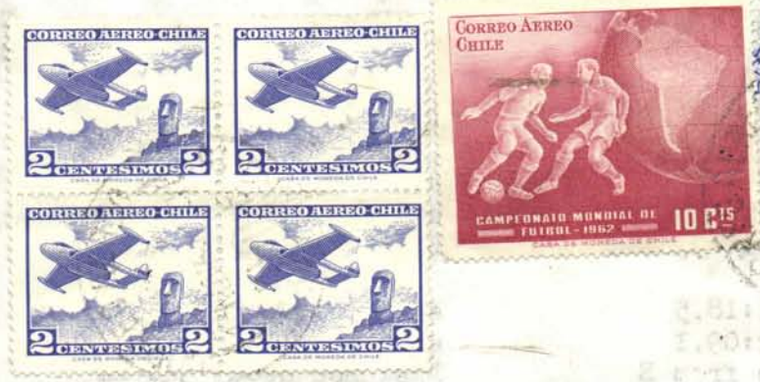
ePKP 18:57:55
eSS 19:21:18
eSSS 27.1
e(G) 38.0
Dilatation
(Distance about 151°)

8 eP 00:25:37.5
eS 26:14
Distance about 330 Km

eP 01:58:39.5
eS 59:17.1
Distance 340 Km

J. Frez.
Seismologist.

INTERNATIONAL SEISMOLOGICAL SUMMARY
KEW OBSERVATORY
RICHMOND, SURREY, INGLATERRA.



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# PROVISIONAL READINGS AT SANTIAGO.
(Santa Lucía)

Nov.09 1964

eP 17:07:18.8
e 31.5
e(S) 43

eP 23:16:42.5
e 17:20.2
eS 33.2
Distance 500 Km

iP 23:22:32.3
i(S) 42.5

iP 23:41:22.5
i(S) 32.4

10 eP 01:26:13.2
eS 23.3
Distance 80 Km

iP 01:56:32.1
iS 42.5
Compression
Distance 84 Km

e(P) 03:10:23

eP 08:43:18.2
eS 41.3
Distance 210 Km

iP 09:55:48.4
iS 56:02.5
Compression
Distance 120 Km

Nov.11 1964

eP 05:14:35
i 45.4
iS 48.1
Distance 110 Km

eP 07:07:07.3
eS 23.5
Distance 143 Km

eP 11:01:40
eS 02:(00)
On minute mark

e(P) 17:48:26.6

eP 22:56:21.5
eS 33
Small
Distance 95 Km

12 iP 03:44:17
i(S) 50
Dilatation

e 06:16:52

iP 08:41:30.8
iS 53
Distance 200 Km

iP 09:52:30.6
e(S) 42.5

Nov.12 1964

iP 09:58:26.5
eS 36
Dilatation
Distance 75 Km

e 10:32:48

iP 11:22:22.2
iS 23:05.5
Dilatation
Distance 413 Km

e 12:17:24.5

iP 14:35:13.5
eS 32
Distance 165 Km

i 15:57:05.1

iP 17:03:47.5
e(S) 04:12.3

eP 18:04:10.5
eS 24.5
Distance 120 Km

eP 19:09:54.9

eP 19:23:38.2
iS 58
Distance 178 Km

iP 23:06:10.4
eS 42
Distance 295 Km

H. Becker
Seismologist.

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PROVISIONAL READINGS AT PELDEHUE.

Nov.07 1964
iP 19:50:59.5
iS 51:06.5
Dilatation
Distance 50 Km

eP 22:33:49.5
e(S) 34:16

08 eP 01:56:13.7
eS 52.8
Distance 370 Km

e(P) 02:43:25

eP 02:56:28
e(pP) 57:26
eS 03:06:44
eSS 12:25
eG 19:23
eR 23:07
Distance 85°

eP 03:02:00
eS 03:10
Small
Distance 683 Km

eP 09:38:11.6
e 51.8
eS 39:06.7
Distance 530 Km

eP 10:24:46.5
iS 25:11.5
Distance 230 Km
eP 17:26:32.8
eS 51.4
Distance 165 Km

eP 17:53:20
eS 54:12.5
Distance 510 Km

eP 18:32:25
eS 33:07.8
Small
Distance 425 Km

eP 20:50:45
eS 51:19
Small
Distance 320 Km

eP 23:50:45.2
eS 51:17.5
Distance 305 Km

Nov.09 1964
iP 00:27:16.5
iS 30
Compression from SE
Distance 110 Km

eP 01:56:33.9
eS 57:04.2
Small
Distance 280 Km

iP 03:24:27.3
iS 41.1
Compression from SW
PZ=23mm ; 0.3 sec.
Distance 115 Km

eP 08:00:19.7
iS 35.8
Distance 140 Km

eP 10:52:34.3
eS 53:24
Small
Distance 472 Km

eP 12:45:12.5
e 32.4
eS 46:20
Distance 635 Km

eP 16:02:04.1
e(S) 12.7

eP 16:32:04.4
eS 33:14.1
Distance 680 Km

eP 17:07:18.1
iS 36.5
Dilatation ?
Distance 164 Km

eP 21:19:04.4
eS 17.3
Small
Distance 110 Km

eP 21:59:48.2
eS 22:00:16.2
Distance 260 Km

eP 23:16:34.2
eS 17:32.8
e 18:08.8
Distance 567 Km

Nov.09
iP 23:22:36.5
iS 50.0
Dilatation from SE
Distance 115 Km

iP 23:41:26.4
iS 40.3
Dilatation from SE
Distance 120 Km

10 eP 01:26:17.0
iS 31.1
Dilatation
Distance 120 Km

iP 01:56:35.9
iS 50.0
Dilatation
Distance 120 Km

iP 08:43:15.1
iS 36.3
Dilatation
Distance 190 Km

iP 09:55:52
iS 56:06.7
PZ 16.6 mm; 0.2 sec.
Compression from S
Distance 127 Km

11 iP 05:14:40.2
iS 54.6
Distance 124 Km

iP 07:07:04.7
iS 18.6
Distance 120 Km

eP 11:01:37
iS 54.4
Distance 154 Km

iP 22:56:19.2
iS 30.7
Distance 95 Km

12 iP 03:44:13.5
e 35.2
eS 56.8
Distance 410 Km

eP 06:16:40
eS 17:00
Small
Distance 180 Km

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## PROVISIONAL READINGS AT PELDEHUE.

Nov.12 1964
iP 08:41:27.4
iS 49.1
PZ 23 mm; 0.3 sec.
Compression from NW
Distance 187 Km

iP 09:52:33.9
eS 53:02.4
Dilatation
Distance 265 Km

iP 09:58:28
iS 38.5
Dilatation from E ?
PZ 29 mm; 0,7 sec.
Distance 85 Km

eP 10:32:18.8
iS 42.3
Distance 215 Km

Nov.12 1964
iP 11:22:17.9
e 36.5
e(S) 02.8
Compression from N

iP 14:35:18.9
eS 36.6
Distance 160 Km

eP 14:44:52.2
eS 45:08.2
Distance 140 Km

eP 15:56:49.6
iS 57:02.4
Distance 110 Km

eP 17:03:47.2
iS 04:08
Distance 190 Km

eP 17:35:46.6
eS 36:03.8
Distance 152 Km

Nov.12 1964
iP 18:04:15.8
iS 33.4
PZ 13 mm; 0.2 sec.
Distance 156 Km

eP 19:10:00
eS 11.6
Distance 96 Km

eP 19:23:32.9
iS 51
Dilatation
Distance 160 Km

iP 22:14:44.6
iS 15:04.3
Dilatation from SE
PZ 71.5 mm; 0.5 sec.
Distance 178 Km

eP 23:06:02
eS 28
Distance 240 Km

E. Lorca
Seismologist.

## PROVISIONAL READINGS AT SOMBRERO.

Nov.06 1964
e 05:04:--
eR 15:--

Nov.07 1964
e 21:03:40
eL 15:48

H. Becker
Seismologist.

## PROVISIONAL READINGS AT CONCEPCION.

Nov.08 1964
eP 22:01:35.5
eS 39.5
Distance 32 Km

15 eP 00:40:51

Nov.15
iP 06:38:34
iS 53.5
Distance 155 Km

16 eP 04:45:25.5
eS 54
Distance 245 Km

Nov.16 1964
eP 13:18:30
eS 49
Distance 150 Km

A. Sickinger
Seismologist.

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PROVISIONAL READINGS AT COPIAPO.

Nov.05 1964
eP 10:41:42
eS 42:10
Distance 240 Km

06 e(S) 16:32:51

Nov.06 1964
eP 16:33:56
eS 34:06
Distance 80 Km

07 eP 02:36:03
eS 44
Distance 365 Km

Nov.08 1964
eP 03:01:03
eS 13
Distance 80 Km

L. Cabello.
Seismologist.

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PROVISIONAL READINGS AT ANTOFAGASTA.

Nov.08 1964
eP 02:57:10
e(PP) 03:00:43
eSKS 07:38
ePS 09:25
e(SS) 14.6
eSSS 18.0
eG 21:49
eR 26.2
Distance 92°

eP 03:02:08
e(S) 46.5

eP 14:43:55.3
eS 44:31.4
Dilatation
Distance 320 Km

eP 15:17:47.0
eS 18:27.9
i 28.6
Compression
Distance 380 Km

eP 16:41:44.5
eS 42:19.6
Distance 360 Km

e(P) 22:40:09
e 11
local

eP 23:28:43.3
e(S) 29:09.8

09 e(P) 00:05:35.0
eS 48

iP 04:22:49.7
e(S) 23:38.3
i 39.7
Compression from NE

Nov.09 1964
iPKP 05:03:42.6
Compression from SSW

eP 09:05:49.7
e 06:09.5
eS 31.4
Distance 380 Km

eP 09:14:23
eS 36.8
Distance 110 Km

eP 09:39:20.4
eS 25.5
Small local
Distance 40 Km

eP 14:16:50.2
e(S) 17:22.5
Dilatation

eP 17:56:24.8
eS 40.6
Distance 130 Km

eP 18:50:04.1
i 25.9
i(S) 35.9

eP 18:50:04.1
i 25.9
i(S) 35.9

eP 23:16:33
local

10 eP 00:25:52.2
i 53.2
iS 26:13.2
Distance 180 Km

Nov.10
iP 04:17:52.4
iS 18:28.9
Compression from E
Distance 330 Km

eP 08:09:27.7
eS 10:05
Distance about 330 Km

eP 09:06:48.2
eS :24.5
Distance 330 Km

eP 10:00:58.2
eS 01:32.6
Dilatation
Distance 310 Km

eP 17:39:20.4
eS 45
Distance about 210 Km

11 eP 02:01:39.9
eS 02:16.0
Compression
Distance 330 Km

eP 02:11:39.5
e(S) 12:19.5
Dilatation

eP 02:18:02.0
eS 29.5
Distance 240 Km

eP 10:33:16.8
eS 55.6
Distance 350 Km

eP 10:41:20.1
eS 57.1
Dilatation
Distance 340 Km

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PROVISIONAL READINGS AT ANTOFAGASTA.

Nov.11 1964

eP 11:20:22.7
eS 21:02
Distance about 350 Km

iP 13:53:05.7
iS 19.6
Compression from ENE
Distance 110 Km

eP 14:13:05.4
e(S) 44.5

eP 14:28:46.9
e(S) 29:22.5

eP 15:28:33.4
eS 29:09.8
Dilatation
Distance 330 Km

eP 17:06:06.2
i 07.1
eS 22.6
Distance 130 Km

eP 18:01:22.0
eS 37.6
Distance 130 Km

e(S) 18:53:30.0
local

Nov.11

iP 19:03:17.2
iS 23.5
Dilatation from E
Distance 50 Km

eP 22:33:35
e(S) 34:04

12 eP 00:04:43.4
eS 49.5
Distance 50 Km

eP 02:07:25.3
eS 08:02.8
Distance 340 Km

eP 04:54:46.3
eS 55:23.8
Compression from E
Distance 340 Km

eP 05:23:50.0
eS 24:29.1
Distance 350 Km

eP 06:00:06.3
i 06.7
eS 43.3
Distance 330 Km
Dilatation

Nov.12 1964

eP 06:45:35.3
eS 46:12.7
Distance 350 Km

eP 11:37:01.2
eS 41.3
Dilatation from ESE
Distance 370 Km

eP 12:14:51.2
iS 15:49.0
Compression
Distance 560 Km

ePKP 20:17:14.8
Dilatation

eP 20:18:37.7
eS 19:12.2
Dilatation?
Distance 300 Km

e(P) 21:18:53.4
i 59.2
i(S) 19:46

J. Frez
Seismologist.

INTERNATIONAL SEISMOLOGICAL SUMMARY
KEW OBSERVATORY
RICHMOND, SURREY, INGLATERRA.

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## PROVISIONAL READINGS AT SANTIAGO
(Santa Lucía)

33° 26′ 40″ S 70° 38′ 54″ W h = 581 mts.

Nov.13 1964
iP 01:33:58.6
i 34:06.4
eS 19.5
Distance 190 Km
Compression
iP 02:13:22.5
iS 35.6
Distance 110 Km

e(P) 08:35:51
e 36:21.5

eP 10:36:13
eS 40
Compression
Distance 250 Km

eP 15:44:57.2
eS 45:22
Distance 228 Km

iS 22:19:41.6

14 iP 05:46:56.3
eS 47:08
Dilatation
Distance 97 Km

eS 12:15:53

eP 19:28:17
iS 43
Distance 240 Km

15 eP 00:40:40.3
iS 41:09.7
Distance 284 Km

eP 02:15:02.5
eS 28
Distance 235 Km

iP 06:03:22.6
e(S) 40.6
Compression

eP 06:25:05.4
eS 19.5
Dilatation
Distance 120 Km

iP 06:33:05.6
iS 20
Compression
Distance 135 Km

eP 06:39:23
eS 40:49
Distance 845 Km

eP 08:36:03.2

Nov.15 1964
iP 12:02:52.5
Dilatation

iP 13:07:24.3
eS 39
Compression
Distance 127 Km

eP 16:40:39.2
e 41:39

eP 21:02:35.5
eS 48
Distance 105 Km

eP 21:27:02.9
e(S) 12

16 eP 03:41:34.4
eS 42:(00)
On minute mark

iP 04:45:02.8
iS 24
Dilatation
Distance 192 Km

eP 13:18:41.5
iS 19:12.6
Distance 290 Km

eP 17:45:38.5
e(S) 46:06

eP 21:38:35
eS 39:13
Distance 360 Km

17 epPKP 08:34:37.5
ePP 36:18
e(PS) 47:08
eSS 53:32
ePSS 54:40
e(Q) 09:04:42
eR 14:10
Distance 130°
Mag. about 7

eP 09:35:33.1
eS 56.9
Distance 220 Km

eP 17:48:33.9
iS 49:12.5
Distance 365 Km

eP 23:36:23
e(S) 37:10

18 iP 04:08:32.3
i 35.7

Nov.18 1964
iP 05:02:36.2
iS 03:22
Compression from NE
Distance 338 Km

iP 05:26:50.5
e 27:07.3
iS 13.6
Dilatation
Distance 210 Km

eP 07:58:21.4
i 30.3
eS 59:06.8
Distance 435 Km

iP 08:36:15.4
i 24.3
i 42.5
iS 37:(00)
Dilatation
On minute mark

iP 09:01:40.8
eS 02:(00)
Dilatation
On minute mark

eP 14:53:53
e 55:30
e(S) 15:12:54
eR 33:(40)

eP 15:27:(00)
eS 14.2
On minute mark

eP 21:59:49.3
iS 22:00:55.7
Distance 645 Km

eP 22:33:56
e(S) 44:33
eG 23:02:57
eR 05:--

19 iP 02:45:57.3
eS 46:10.3
Distance 110 Km

iP 04:34:40.0
eS 35:(00)
Compression
On minute mark

eP 10:07:56.2
e(S) 08:26
Dilatation

Nov.19 1964
ePKP 23:54:15.6
ePP 56:04
eSKS 00:01:18
eSKKS 02:58
eSP 06:08
ePPS 07:40
eSS 13:01
e 15:57
eSSS 17:58
eG 27:12
eR 33:37
Distance 125°
Mag. about 7
There is another shock impossible to identify.

20 No record S.P.

eL 10:14:52

e(PKP) 23:52:46
eL 00:51:--

21 iP 02:35:54.5
iS 37:31.5
Dilatation
Distance 958 Km

eP 05:48:56
eS 49:06
Distance 80 Km

e 06:32:42

eP 07:59:44.5
eS 08:00:40
Distance 535 Km

eP 09:42:19.5
eS 43.5
Distance 220 Km

eP 09:50:48.4
e 51:40.5
e(S) 52:14.4

iP 09:54:09.6
iS 26.6
Compression
Distance 150 Km

eP 10:53:45.4
e(S) 54:36

eP 21:25:(00)
e(S) 07.5
On minute mark

H. Becker.
Seismologist.

## PROVISIONAL READINGS AT PELDEHUE.

33° 08′ 37″ S 70° 41′ 07″ W h = 690 mts.

Nov.13 1964
iP 01:34:03.8
iS 21
From NW
Distance 152 Km

eP 02:13:26.5
iS 44.3
Dilatation from S ?
Distance 158 Km

eP 08:35:47.3
eS 36:21.5
Distance 320 Km

Nov.13 1964
eP 10:36:09
iS 32.9
PZ = 28 mm; 0.6 sec.
Distance 220 Km

iP 15:44:53.7
iS 45:15.8
PZ = 28 mm; 0.5 sec..
Distance 200 Km

iP 22:19:22.5
iS 36.5
Distance 120 km

Nov.14 1964
eP 01:37:40.8
eS 38:08.8
Small
Distance 260 Km

iP 05:46:52.8
eS 47:01.6
Dilatation from N
Distance 68 Km

eP 07:44:09.1
eS 35
Distance 240 Km

Nov.15 1964
eP 12:15:31.1
iS 46.6
Distance 135 Km

iP 19:28:10.2
iS 35.1
Compression
Distance 230 Km

eP 22:47:17.4
iS 31
Distance 116 Km

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## PROVISIONAL READINGS AT PELDEHUE

Nov. 14 1964
eP 23:46:55.1
eS 47:12.7
Distance 156 Km

15 eP 00:40:42.8
iS 41:14.3
Distance 295 Km

eP 02:15:00.9
iS 22.5
Distance 196 Km

eP 06:03:25.9
iS 43.1
Compression
Distance 152 Km

iP 06:25:08.4
iS 26.1
Dilatation from S
Distance 157 Km

iP 06:33:08.6
iS 25.5
Dilatation from SE
PZ = 22.5 mm¡ 0.3 sec.
Distance 150 Km

eP 06:39:24.6
iS 40:51
Distance 850 Km

eP 08:35:58
eS 36:57
Distance 11°

iP 12:02:55.7
iS 04:13.3
Dilatation from SE
PZ = 23.1 mm¡ 0.5 sec.
Distance 758 Km

iP 13:07:27.5
iS 44.2
Dilatation from SE
PZ = 49 mm¡ 0.9 sec.
Distance 148 Km

Nov.15 1964
eP 16:40:31.3
eS 41:13.9
Distance 410 Km

eP 21:02:37.6
eS 52.3
Distance 129 Km

iP 21:27:01.5
iS 25.9
PZ = 35.2 mm¡ 0.3 sec.
Distance 225 Km

eP 22:12:27
iS 40.2
Small
Distance 112 Km

eP 23:33:20.T
eS 51.2
Distance 287 Km

16 eP 02:02:37.1
e(S) 03:08.9

eP 03:41:30.4
iS 54.2
Distance 298 Km

eP 03:49:35.4
eS 50:38.4
Distance 610 Km

iP 04:45:05.5
iS 29.2
PZ = 43 mm¡ 0.3 sec.
Distance 217 Km

eP 04:52:26.5
eS 58.7
Distance 300 Km

e(P) 05:07:23.4
eS 08:11.5

eP 05:12:31.1
iS 43.4
Small
Distance 100 Km

Nov.16 1964
eP 07:09:16.2
iS 30.4
Small
Distance 120 Km

eP 13:18:44.6
iS 19:19.1
Distance 325 Km

eP 17:45:33.2
iS 54.8
Distance 196 Km

eP 17:59:41.3
iS 52.7
Small
Distance 95 Km

eP 21:38:29.6
e 34.7
iS 39:04.9
Distance 330 Km

eP 23:00:21.2
? Seismic

17 e(P) 08:34:37.5
e 36:13.5
Rest phases illegibles

eP 09:35:29.9
iS 54.7
Distance 230 Km

18 Station shorted

19 S.P. Shorted to 18:36

ePKP 23:54:09.6
ePP 56:00
ePKS 57:29
eSKS 00:01:11
eSKKS 03:00
ePPS 07:30
e 11:33
eSSP 13:13
e(SSS) 16:28
e 20:46
e(G) 25:49
e 29:08
eR 33:25
Distance 122.5°

Nov. 20 1964
eL 10:17:--

21 iP 02:35:55.5
i 37:32.7
iS 42.9
PZ = 48.5 mm¡ 1.2 sec.
Distance about 980 Km

eP 05:48:57.5
eS 49:08.1
Distance 86 Km

e 06:32:44.5

eP 07:59:41
iS 08:00:33.5
Distance 505 Km

eP 09:42:22
eS 48.5
Distance 245 Km

eP 09:50:44
e 51:45.5
iS 52:31.9
Distance 9.6°

iP 09:54:15
iS 36.5
Distance 195 Km

eP 10:53:41.3
eS 54:27.5
Distance 440 Km

iPg 13:20:49.1
iSg 52
local
Distance about 20 Km

iP 14:18:11.9
iS 22.4
Distance 85 Km

E. Lorca
Seismologist.

## PROVISIONAL READINGS AT SOMBRERO

Nov. 1964
13 No record S.P.

Nov.17 1964
ePKP 08:35:12
eSKKS 44:28
e(SSS) 09:01:--
eG 09.1
eR 14.3
Distance about 130°

H. Becker.
Seismologist.

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## PROVISIONAL READINGS AT PELDEHUE

Nov. 14 1964
eP 23:46:55.1
eS 47:12.7
Distance 156 Km

15
eP 00:40:42.8
iS 41:14.3
Distance 295 Km

eP 02:15:00.9
iS 22.5
Distance 196 Km

eP 06:03:25.9
iS 43.1
Compression
Distance 152 Km

iP 06:25:08.4
iS 26.1
Dilatation from S
Distance 157 Km

iP 06:33:08.6
iS 25.5
Dilatation from SE
PZ = 22.5 mm| 0.3 sec.
Distance 150 Km

eP 06:39:24.6
iS 40:51
Distance 850 Km

eP 08:35:58
eS 36:57
Distance 11°

iP 12:02:55.7
iS 04:13.3
Dilatation from SE
PZ = 23.1 mm| 0.5 sec.
Distance 758 Km

iP 13:07:27.5
iS 44.2
Dilatation from SE
PZ = 49 mm| 0.9 sec.
Distance 148 Km

Nov. 15 1964
eP 16:40:31.3
eS 41:13.9
Distance 410 Km

eP 21:02:37.6
eS 52.3
Distance 129 Km

iP 21:27:01.5
iS 25.9
PZ = 35.2 mm| 0.3 sec.
Distance 225 Km

eP 22:12:27
iS 40.2
Small
Distance 112 Km

eP 23:33:20.T
eS 51.2
Distance 287 Km

16
eP 02:02:37.1
e(S) 03:08.9

eP 03:41:30.4
iS 54.2
Distance 298 Km

eP 03:49:35.4
eS 50:38.4
Distance 610 Km

iP 04:45:05.5
iS 29.2
PZ = 43 mm| 0.3 sec.
Distance 217 Km

eP 04:52:26.5
eS 58.7
Distance 300 Km

e(P) 05:07:23.4
eS 08:11.5

eP 05:12:31.1
iS 43.4
Small
Distance 100 Km

Nov. 16 1964
eP 07:09:16.2
iS 30.4
Small
Distance 120 Km

eP 13:18:44.6
iS 19:19.1
Distance 325 Km

eP 17:45:33.2
iS 54.8
Distance 196 Km

eP 17:59:41.3
iS 52.7
Small
Distance 95 Km

eP 21:38:29.6
e 34.7
iS 39:04.9
Distance 330 Km

eP 23:00:21.2
? Seismic

17
e(P) 08:34:37.5
e 36:13.5
Rest phases illegibles

eP 09:35:29.9
iS 54.7
Distance 230 Km

18 Station shorted

19 S.P. Shorted to 18:36

ePKP 23:54:09.6
ePP 56:00
ePKS 57:29
eSKS 00:01:11
eSKKS 03:00
ePPS 07:30
e 11:33
eSSP 13:13
e(SSS) 16:28
e 20:46
e(G) 25:49
e 29:08
eR 33:25
Distance 122.5°

Nov. 20 1964
eL 10:17:--

21
iP 02:35:55.5
e 37:32.7
iS 42.9
PZ = 48.5 mm| 1.2 sec.
Distance about 980 Km

eP 05:48:57.5
eS 49:08.1
Distance 86 Km

e 06:32:44.5

eP 07:59:41
iS 08:00:33.5
Distance 505 Km

eP 09:42:22
eS 48.5
Distance 245 Km

eP 09:50:44
e 51:45.5
iS 52:31.9
Distance 9.6°

iP 09:54:15
iS 36.5
Distance 195 Km

eP 10:53:41.3
eS 54:27.5
Distance 440 Km

iPg 13:20:49.1
iSg 52
local
Distance about 20 Km

iP 14:18:11.9
iS 22.4
Distance 85 Km

E. Lorca
Seismologist.

## PROVISIONAL READINGS AT SOMBRERO

Nov. 1964
13 No record S.P.

Nov. 17 1964
ePKP 08:35:12
eSKKS 44:28
e(SSS) 09:01:--
eG 09.1
eR 14.3
Distance about 130°

H. Becker.
Seismologist.

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## PROVISIONAL READINGS AT CONCEPCION.

36° 49′ 41″ S 73° 02′ 42″ W h = 46 mts.

Nov.18 1964 eP 05:03:(34.5)
e(S) 05:(24)
Distant seism

Nov.19 1964 eP 10:06:52.7
eS 07:07.7
Distance 120 Km

Nov. 20 1964 eP 16:59:13.5

A. Sickinger.
Seismologist

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## PROVISIONAL READINGS AT ANTOFAGASTA.

23° 42′ 18″ S 70° 24′ 55″ W h = 80 mts.

Nov.13 1964 eP 00:27:04.2
eS 15.3
Distance 80 Km

eP 01:53:32.9
eS 49.7
Distance 130 Km

eP 02:18:30
e(S) 19:01.7

eP 07:30:46.1
eS 31:17.6
Distance 280 Km

eP 10:08:26.6
i 27.9
e(S) 52.0

eP 13:18:21.9
eS 48.8
Distance 240 Km

e(P) 14:06:54.7
eS 07:29.3

e(P) 23:22:11.6
eS 33.0

eP 23:25:38
i 39.1
eS 26:02.6
Dilatation from NE?
Distance 220 Km

14 eP 01:29:04.2
e(S) 20

iP 03:34:16.0
eS 56.7
Compression from ENE
Distance 370 Km

eP 14:13:47.4
eS 14:24.5
Dilatation from E
Distance 330 Km

Nov.14 1964 eP 15:48:12.4
eS 29.9
Distance 140 Km

iP 18:06:30.5
eS 07:11.2
Dilatation from E
Distance 370 Km

eP 21:01:11
eS 37.3
Distance about 320 Km

15 e(P) 04:17:59.2
eS 18:30

iP 11:26:18.7
iS 23.0
Dilatation from SW
Distance 30 Km

iP 12:38:14.8
iS 35.7
Compression from E
Distance 180 Km

eP 16:41.5
e(R) 43:12

iP 23:34:25.9
iS 42.7
Compression from E
Distance 130 Km

eP 23:55:25.5
eS 57.8
Dilatation from E
Distance 280 Km

16 iPKP 06:19:36.5
Dilatation

iP 06:41:27.6
iS 35.2
Dilatation from SSE
Distance 70 Km

Nov.16 1964 iP 18:15:13.5
iS 18.9
Compression from S
Distance 40 Km

eP 21:39:24.7
local

17 e(P) 00:38:23.3
eS 39:05.8

e(P) 08:31:32
eP″ 34:49
ePP :37:01
ePKS 38:12
e(SKS) 41:43
eSKKS 43:42
eSP 47.0
eSPP 48.8
eSS 54.0
eSSS 58:37
eG 09:09.4
eR 14.7
Distance 130°

e(PKP)16:24:44

eP 17:41:16.3
e(S) 55
Dilatation

eP 18:49:33.5
eS 48.2
Distance 120 Km

ePKP 19:19:46.4
Compression

e(P) 21:02:29.1
eS 49.1

18 eP 04:06:38.2
e(S) 08:33
e(R) 43
Dilatation ?

Nov. 18 1964 eP 05:03:38.8
e(S) 05:06
e(R) 49

eP 07:00:25.0
eS 01:07.8
Distance 400 Km

eP 08:00:41.5
iS 01:21.0
Dilatation
Distance 380 Km

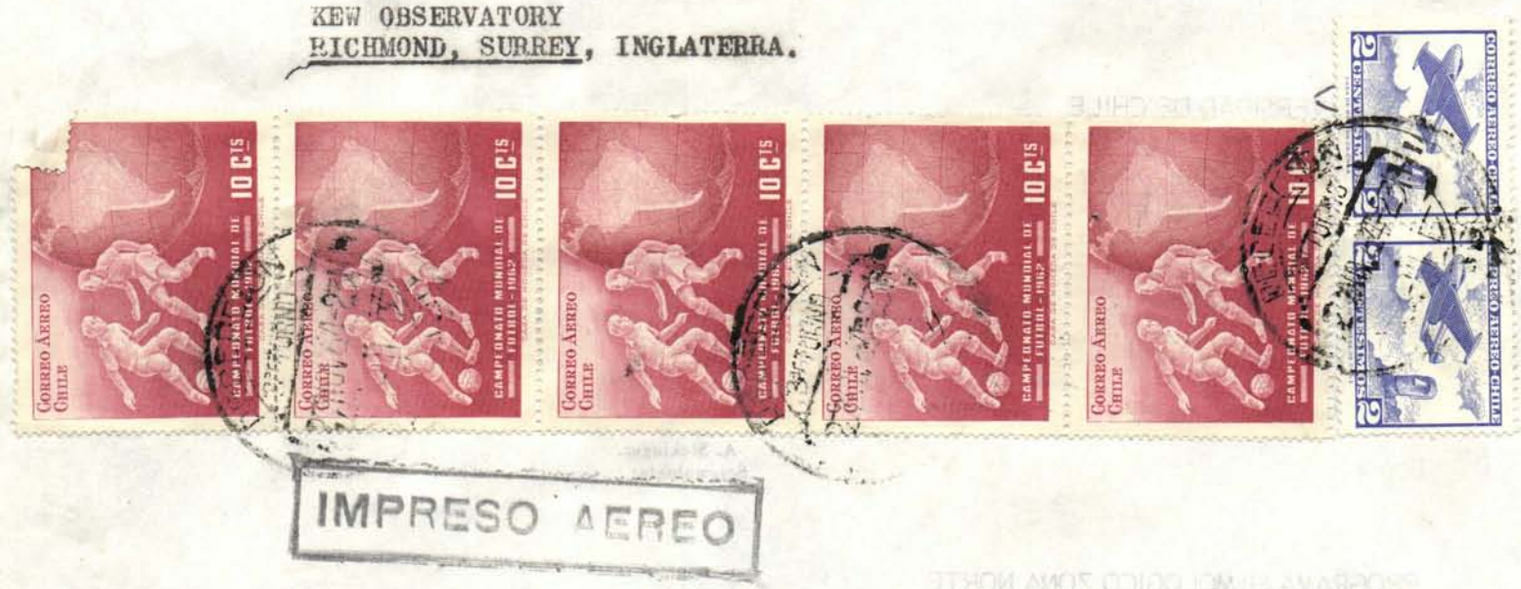
eP 08:37:21
e(Q) 39:30

eP″ 14:54:05.3
epP″ 21.2
ePP 56:39
ePKS 57:31.6
eSS 15:14:07
eG 29:12
eR 36.7
H about 50 K
From NW
Distance about 135°

eP 22:34:17
eSKS 44:54
eS 45:27
ePS 46:34
e 59
eSS 51.9
eR 23:04.0
Dilatation ?
From WSW
Distance 95°

J. Frez.
Seismologis e

INTERNATIONAL SEISMOLOGICAL SUMMARY
KEW OBSERVATORY
RICHMOND, SURREY, INGLATERRA.




IMPRESO AEREO

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Santiago, Chile.

## PROVISIONAL READINGS AT SANTIAGO
(Santa Lucía)

33° 26′ 40″ S 70° 38′ 54″ W h = 58 mts.

Nov.22 1964
eP 05:26:40
e 48.4
Compression

eP 05:52:29
e 53

eP 05:54:15.5

eP 09:47:57.8
e(S) 48:16.9

eP 12:14:52.6
eS 15:18
Distance 234 Km

eP 23:35:32
e 54.3
eS 36:03
Distance 290 Km

23 iP 10:29:36.4
eS 50
Distance 115 Km

iP 10:47:51.5
eS 48:22
Distance 285 Km

eP 11:30:14
eS 33
Distance 170 Km

e 13:01:48

Nov.23 1964
eP 17:27:59
eS 28:24
Distance 230 Km

eP 21:13:46
eS 14:06.5
Distance 180 Km

eP 21:16:11.5
eS 20.8
Distance 70 Km

eP 22:24:43.5
eS 25:11.5
Distance 260 Km

eP 22:35:14.5

24 iP 01:31:17.4
eS 44.7
Distance 260 Km

e 02:22:33.7

eP 04:47:36.5
eS 53.7
Distance 245 Km

eP 05:31:45.5
e 55.6
e 32:06.5

eP 05:40:18.5
eS 41:39.5
Distance 800 Km

Nov.24 1964
e 10:02:24.2

ePKP 13:00:49
e 01:05.6
epPKP 19.8
eSKKS 11:38
eSS 24:40
eSSS 30:45
e 40:50
Distance about 155°

25 e(P) 04:38:48

iP 04:51:25.6
e 46
Compression

iP 06:35:44.5
Compression

iP 08:24:27.1

e(P) 09:42:26.7
e 45:08

eP 13:28:04.3
iS 21
Distance 148 Km

iP 20:47:44
iS 48:13
Compression
Distance 270 Km

iP 22:34:36.1
i(S) 57.0
Compression

Nov.26 1964
eP 07:54:03.7
12.1
18.5
eS 55:20.5
Distance 750 Km

09:20:46.5

10:42:12.5

eL 11:12:--

27 eP 00:26:(00)
eS 12
On minute mark

eP 01:52:21.6
eS 54.7
Distance 310 Km

iP 11:43:22
eS 40
Distance 160 Km

eP 18:30:23
e(S) 44

e 23:29:58

28 eP 03:10:40.8
eS 54
Distance 110 Km

iP 16:46:15.4
eS 49:58
Distance 21°

iP 16:54:11
eS 57:55
Distance 21°

H. Becker
Seismologist

## PROVISIONAL READINGS AT PELDEHUE

33° 08′ 37″ S 70° 41′ 07″ W h = 690 mts.

Nov.21 1964
eP 21:25:01.9
iS 09.3
Distance 55 Km

22 eP 05:26:36.5
e 46
e(S) 28:29
e 29:10.3

iP 05:52:31.7
e(S) 55.4

eP 05:53:54
e(S) 55:34

eP 09:48:02.8
eS 20.9
Distance 160 Km

eP 12:14:48.4
i 15:02.2
iS 10.3
Distance 200 Km

iP 23:35:36.2
iS 36:08.9
Dilatation
Distance 310 Km

Nov.23 1964
iP 10:29:37.8
iS 53
PZ = 13mm| 0.5 sec.
Distance 130 Km

iP 10:47:48.5
iS 48:17
Compression
PZ = 160 mm| 0.7 sec.
Distance 265 Km

eP 11:30:10.9
iS 28.6
Distance 155 Km

e(P) 13:00:23
eS 01:49

eP 17:28:01.5
iS 28.8
i 57.8
Distance 255 Km

eP 18:47:07.4
eS 31.6
Distance 220 Km

eP 21:13:42.6
eS 59.7
Distance 150 Km

Nov.23 1964
eP 21:16:12.6
iS 21.9
Dilatation
Distance 70 Km

eP 22:24:40.7
eS 25:06.2
Distance 235 Km

24 iP 01:31:21.5
iS 53.3
Compression from S
PZ = 140 mm| 0.5 sec.
Distance 300 Km

eP 02:22:13.5
iS 29
Distance 135 Km

eP 04:47:40
eS 48:10.2
Distance 280 Km

eP 05:31:41.7
eS 58.5
Distance 150 Km

eP 05:40:14.5
eS 41:33
Distance 770 Km

Nov.24 1964
eP 10:01:49.6

e(P) 11:00:41

ePKP 13:00:48
epPKP 01:19
ePKS 04:28
eSKKS 11:26
e 14:03
eSS 24:33
eSSS 30:25
e 39:00
Distance 155°

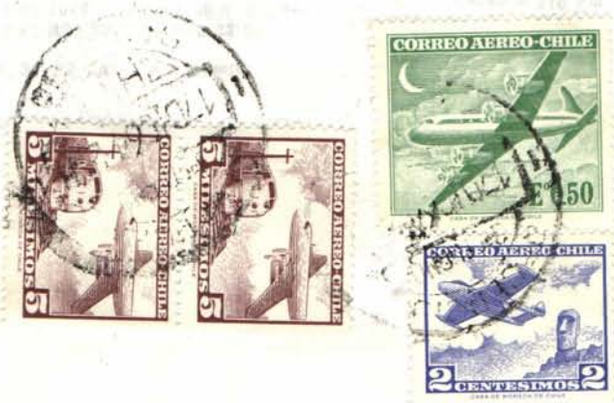
eP 17:34:35.4
iS 46.5
Distance 90 Km

25 eP 04:38:36.5
e 41:42

iP 04:51:30.9
i 51.6
iS 52:05.5
Compression
PZ = 127.5| 0.5 sec.
Distance 325 Km

INTERNATIONAL SEISMOLOGICAL SUMMARY
KEW OBSERVATORY
RICHMOND, SURREY, INGLATERRA.

IMPRESO AEREO



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## PROVISIONAL READINGS AT SANTIAGO
(Santa Lucía)

33° 26′ 40″ S 70° 38′ 54″ W h = 58 mts.

Nov.22 1964
eP 05:26:40
e 48.4
Compression

eP 05:52:29
e 53

eP 05:54:15.5

eP 09:47:57.8
e(S) 48:16.9

eP 12:14:52.6
eS 15:18
Distance 234 Km

eP 23:35:32
e 54.3
eS 36:03
Distance 290 Km

23 iP 10:29:36.4
eS 50
Distance 115 Km

iP 10:47:51.5
eS 48:22
Distance 285 Km

eP 11:30:14
eS 33
Distance 170 Km

e 13:01:48

Nov.23 1964
eP 17:27:59
eS 28:24
Distance 230 Km

eP 21:13:46
eS 14:06.5
Distance 180 Km

eP 21:16:11.5
eS 20.8
Distance 70 Km

eP 22:24:43.5
eS 25:11.5
Distance 260 Km

eP 22:35:14.5

24 iP 01:31:17.4
eS 44.7
Distance 260 Km

e 02:22:33.7

eP 04:47:36.5
eS 53.7
Distance 245 Km

eP 05:31:45.5
e 55.6
e 32:06.5

eP 05:40:18.5
eS 41:39.5
Distance 800 Km

Nov.24 1964
e 10:02:24.2

ePKP 13:00:49
e 01:05.6
epPKP 19.8
eSKKS 11:38
eSS 24:40
eSSS 30:45
e 40:50
Distance about 155°

25 e(P) 04:38:48

iP 04:51:25.6
e 46
Compression

iP 06:35:44.5
Compression

iP 08:24:27.1

e(P) 09:42:26.7
e 45:08

eP 13:28:04.3
iS 21
Distance 148 Km

iP 20:47:44
iS 48:13
Compression
Distance 270 Km

iP 22:34:36.1
i(S) 57.0
Compression

Nov.26 1964
eP 07:54:03.7
12.1
18.5
eS 55:20.5
Distance 750 Km

09:20:46.5

10:42:12.5

eL 11:12:--

27 eP 00:26:(00)
eS 12
On minute mark

eP 01:52:21.6
eS 54.7
Distance 310 Km

iP 11:43:22
eS 40
Distance 160 Km

iP 18:30:23
e(S) 44

e 23:29:58

28 eP 03:10:40.8
eS 54
Distance 110 Km

iP 16:46:15.4
iS 49:58
Distance 21°

iP 16:54:11
eS 57:55
Distance 21°

H. Becker
Seismologist

## PROVISIONAL READINGS AT PELDEHUE

33° 08′ 37″ S 70° 41′ 07″ W h = 690 mts.

Nov.21 1964
eP 21:25:01.9
iS 09.3
Distance 55 Km

22 eP 05:26:36.5
e 46
e(S) 28:29
e 29:10.3

iP 05:52:31.7
e(S) 55.4

eP 05:53:54
e(S) 55:34

eP 09:48:02.8
eS 20.9
Distance 160 Km

eP 12:14:48.4
i 15:02.2
iS 10.3
Distance 200 Km

iP 23:35:36.2
iS 36:08.9
Dilatation
Distance 310 Km

Nov.23 1964
iP 10:29:37.8
iS 53
PZ = 13mm| 0.5 sec.
Distance 130 Km

iP 10:47:48.5
iS 48:17
Compression
PZ = 160 mm| 0.7 sec.
Distance 265 Km

eP 11:30:10.9
iS 28.6
Distance 155 Km

e(P) 13:00:23
eS 01:49

eP 17:28:01.5
iS 28.8
i 57.8
Distance 255 Km

eP 18:47:07.4
eS 31.6
Distance 220 Km

eP 21:13:42.6
eS 59.7
Distance 150 Km

Nov.23 1964
eP 21:16:12.6
iS 21.9
Dilatation
Distance 70 Km

eP 22:24:40.7
eS 25:06.2
Distance 235 Km

24 iP 01:31:21.5
iS 53.3
Compression from S
PZ = 140 mm| 0.5 sec.
Distance 300 Km

eP 02:22:13.5
iS 29
Distance 135 Km

eP 04:47:40
eS 48:10.2
Distance 280 Km

eP 05:31:41.7
eS 58.5
Distance 150 Km

eP 05:40:14.5
eS 41:33
Distance 770 Km

Nov.24 1964
eP 10:01:49.6

e(P) 11:00:41

ePKP 13:00:48
epPKP 01:19
ePKS 04:28
eSKKS 11:26
e 14:03
eSS 24:33
eSSS 30:25
e 39:00
Distance 155°

eP 17:34:35.4
iS 46.5
Distance 90 Km

25 eP 04:38:36.5
e 41:42

iP 04:51:30.9
i 51.6
iS 52:05.5
Compression
PZ = 127.5| 0.5 sec.
Distance 325 Km

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## PROVISIONAL READINGS AT PELDEHUE

Nov.25 1964 iP 05:35:49.8
iS 36:07.1
Compression
Distance 153 Km

eP 08:24:22.5
e(S) 25:05.5

eP 09:42:27.6
e 45:12

eP 10:16:47.2
eS 59.6
Distance 105 Km

iP 13:28:01.2
iS 15
Dilatation
Distance 118 Km

Nov.25 1964 eP 14:28:39
iS 52.5
Distance 115 Km

iP 20:47:42.4
iS 48:09.5
Compression
Distance 250 Km

iP 22:34:41.5
eS 59
Compression
Distance 155 Km

26 eP 00:24:17
eS 38
Distance 190 Km

eP 07:53:49.5
e(S) 54:14

Nov.26 1964 10:26:20
P 10:35:54.5
e 36:07.8
Distance 110 Km

27 No record from 05:30 to 19:19

iP 00:10:54.8
iS 11:11.3
Distance 145 Km

iP 00:51:25.5
iS 53.2
Distance 260 Km

eP 20:14:50.5
eS 15:11.5
Distance 190 Km

Nov.27 1964 eP 23:29:37
eS 54.4
Distance 150 Km

eP 23:52:57
eS 53:09.5
Distance 105 Km

28 eP 03:10:40.7
e(S) 58

iP 16:46:12.5
iS 49:53.5
Distance 21°

iP 16:54:08.6
eS 57:50.5
Distance 21°

eP 15:17:52

E. Lorca
Seismologist

## P ROVISIONAL READINGS AT SOMBRERO.

NOV.17 1964 eP 23:10:38
eS 14:14
eSSS 56
eR 15:58
Distance about 20°

18 e 09:03:38
eL 28:00

Nov.19 1964 ePKP 23:54:28
ePPP 57:20
e(SKS) 00:00:34
e(SP) 04:02
ePPS 06:19
eSS 10:27
eR 27:42
Distance about 112°

Nov.24 1964 ePKP 13:00:13
ePP 03:14
eSSP 15:50
eL 48:--
Distance about 145°

H. Becker
Seismologist

## PROVISIONAL READINGS AT COPIAPO

27° 21′ 15″ S 70° 21′ 04″ W h = 384 mts.

Nov. 12 1964 eP 06:15:43
eS 53
Distance 80 Km

15 eP 08:35:19
eS 40
Distance 170 Km

16 eP 03:48:48
eS 49:01
Distance 105 Km

18 e 05:03:06
eS 04:05

Nov.21 1964 eP 09:49:54
eS 50:11
Distance 110 Km

eP 10:53:33
eS 54
Distance 170 Km

22 eP 05:26:11
eS 28
Distance 140 Km

23 eP 08:25:15
eS 24
Distance 70 Km

Nov.23 1964 eP 10:48:20
eS 49:17
Distance 525 Km

24 eP 05:39:17
eS 30
Distance 105 Km

eP 10:01:07
eS 24
Distance 140 Km

eS 15:25:29

Nov.26 1964 eP 03:37:28
eS 28
Distance 80 Km

eP 07:52:54
eS 53:06
Distance 95 Km

eP 10:25:23
eS 34
Distance 90 Km

L. Cabello
Seismologist

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# PROVISIONAL READINGS AT ANTOFAGASTA.

23 °42′18″S 70° 24′55″W h = 80 mts.

Nov.19 1964
eP 04:21:51.6
eS 22:43.4
Compression
Distance 500 Km

eP 07:31:40.2
iS 32:16.0
Dilatation ?
Distance 320 Km

e(P) 08:29:55.3
local

e(P) 10:09:26.0
eS 49.0

iP 10:16:38.1
eS 17:15.3
Compression from E
Distance 330 Km

eP 22:07:34
i 35.9
iS 56.5
Dilatation
From NE ?
Distance about 200 Km

eP 23:51.4
iPKP 54:21.1
ePP 56:42
ePKS 57:53
Compression

20 eSKKS 00:03:34
eSP 06:44
eSPP 08:32
e 11:06
eSS 14:10
eSSS 18.9
eG 28:40
eR 35.0
Distance 131°

iP 06:03:58.3
eS 04:38.5
Compression
Distance 370 Km

eP 07:26:26.9
i 27.7
eS 44.3
Distance 150 Km

Nov.20 1964
eP 09:59:48.3
eS 10:07:35
eSS 11.0
eG 13.0
Compression ?
Distance 56°

iP 17:22:41.2
iS 47.8
Compression from NE
Distance 50 Km

e(P) 19:27:09.4
eS 39.0
i 40.7

iS 19:56:52.6

eP 20:04:35.3
eS 05:12.6
Compression
Distance 340 Km

iP 22:41:45.5
iS 42:24.5
Compression
Distance 350 Km

21 ePSP 00:07.8
eSS 13.2
eSSS 19.3
eG 31
eR 38:56
Doubtful interpretation
From WNW
Distance about 150°

iP 02:36:17.1
e 37:12
e)S) 42.0
Dilatation
PZ = 0.14 u| 1.0 sec.
Magnitude about 5 1/2
Distance about (37 - 40°)

iP 09:24:51.6
iS 56.7
Dilatation from W
Distance 40 Km

e(P) 09:50:35.6
i 39.6
i 48.6
e(S) 51:32.3

Nov.21 1964
e(P) 10:54:14
e(S) 55:25

iP 11:57:25.5
i 32.9
i(S) 55.1
Dilatation from N
PZ = 0.31| 0.6 sec.

eP 12:51:40.2
eS 52:14.8
Distance 300 Km

eP 14:04:11.4
i(S) 48.6

iP 15:26:41.2
eS 59.2
Compression from E
Distance 140 Km

22 iP 05:25:04.6
iS 44.4
Compression from E
Distance 360 Km

eP 06:06:31
eS 48.1
Distance about 140 Km

e(P) 08:00:24.3
i 25.7
eS 50.1
i 54.0

eP 08:09:45.3
iS 10:10.6
Compression from NE
Distance 230 Km

eP 09:33:08.0
iS 24.9
Distance 140 Km

eP 17:06:18.7
eS 54.4
Distance 320 Km

e(P) 17:40:44.6
eS 41:15

iP 17:41:27.7
iS 42:04.6
Compression
Distance 330 Km

iP 20:25:01.5
eS 41.0
Dilatation
Distance 360 Km

Nov.23 1964
e(P) 03:41:13.8
e(S) 48.4

eP 04:20:17.9
e(S) 53.9

eP 06:17:36.5
eS 18:14.4
Distance 340 Km

eP 08:03:05
eS 35
Distance about 260 Km

eP 08:25:54.0
e(S) 26:42.0

eP 10:27:42.0
i 47.1
i 48.0
i(S) 28:45.0

e(P) 10:49:02
i 20.0
e(S) 50:51.0

eP 22:16:46
iS 17:17.5
Distance about 270 Km

iPKP 22:35:38.9
Compression ?

iP 23:33:05.1
iS 44.2
Compression from ESE
Distance 360 Km

24 eP 05:48:32.7
eS 49:10.9
Distance 350 Km

s(PKP)06:08:11

eP 06:41:30.6
eS 42:07.0
Distance 320 Km

eP 06:48:07
e(S) 37.5

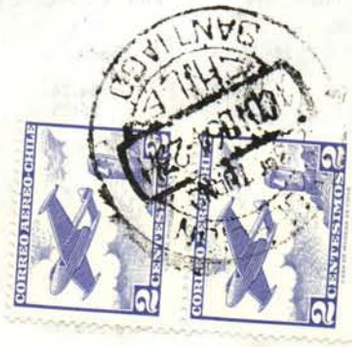
iPKP 11:01:06.4
i 10.6
Compression

iP 11:46:02.1
iS 06.8
Compression from NNE
Distance 40 Km

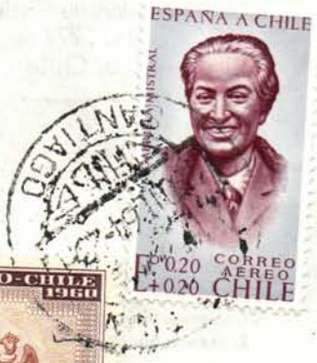
J. Frez.
Seismologist

INTERNATIONAL SEISMOLOGICAL SUMMARY
KEW OBSERVATORY
RICHMOND, SURREY, INGLATERRA.

IMPRESO AEREO







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## PROVISIONAL READINGS AT SANTIAGO.

33° 26′ 40″ S 70° 38′ 54″ W h = 581 mts.

Nov.29 1964
eP 04:39:06
eS 40:41
Distance 940 Km

eP 05:00:--
eS 38
On time mark

eP 05:19:02.5
e(S) 25

eP 06:51:34
eS 52:37.5
Distance 615 Km

e 21:58:46.7

eP 23:58:32.5
eS 43
Distance 85 Km

30 iP 00:17:19.9
iS 18:42
Distance 810 Km

e(P) 02:13:48.8
e 15:09

e 04:25:49
Small

eP 05:57:32.3
eS 59:04
Distance 905 Km

eP 07:35:29.2
eS 45.9
Distance 146 Km

Nov..30 1964
iP 09:13:27.1
iS 39.9
Distance 108 Km

e(P) 10:53:(00)
e(S) 43.7
On time mark

ePKP 12:47:28.5
ePP 51:18
eSKKS 58:12
eSS 13:10:22
eSSP 11:24
eG 30:56
eR 37:44
Distance 152°

iP 12:52:11.5
iS 33.4
Distance 200 Km

eP 17:46:35.7
eS 52
Distance 142 Km

Dec.01 1964
eP 04:14:47
iS 56.5
Distance 75 Km

eP 11:29:17.4
eS 49.5
Distance 300 Km

eP 19:32:51.5
e(S) 33:23

Dec.02 1964
eP 07:20:18.5

e 08:20:18
eL 21:40

eL 08:31:50

e(P) 15:44:33.8
eS 42.8

eP 18:13:47.6
eS 56.7
Distance 70 Km

eP 18:23:(00)
eS 09.5
On time mark

eP 18:26:21.4
eS 30.5
Distance 70 Km

e 19:01:03.5
eS 12.6
Distance 70 Km

03 e 04:19:38
e 25:44
eL 44:18

eP 04:38:38
eS 39:(00)
On time mark

e 15:00:23.5

Dec.03 1964
iP 21:13:17.4
iS 26
Distance 66 Km

e 21:26:27.8

04 eL 02:19

eP 03:26:57.1
eS 27:17.5
Distance 185 Km

eP 09:24:13.2

eP 16:44:07.8
eS 16.8
Distance 70 Km

eP 18:02:43.7
e(S) 54

05 eP 13:04:50.5
e(S) 05:31.7

e 21:19:05.7

06 e 02:45:03.5

eP 11:26:19
eS 27:05.6
Distance 430 Km

eP 14:52:10
e(S) 22
Dilatation

eP 22:34:02.6
eS 27

H. Becker
Seismologist

## PROVISIONAL READINGS AT PELDEHUE.

33° 08′ 37″ S 70° 41′ 07″ W h = 690 mts.

Nov.28 1964
eP 22:39:25
eS 48.5
Distance 215 Km

iP 23:18:43.7
eS 19:01.3
Distance 150 Km

29 eP 02:29:32.7
eS 45.4
Distance 110 Km

eP 04:39:09.2
e 40:37.2
eS 49
Distance 990 Km

eP 04:59:55.7
iS 05:00:35.9
e 01:03
Distance 380 KM

Nov.29 1964
iP 05:18:58.9
iS 19:24
Compression
PZ = 0.64 u. 0.6 sec.
Distance 230 Km

eP 07:06:29.8
e 45.3
eS 07:22.2
Distance 500 Km

eP 11:48:45
eS 50:13.6
Distance 865 Km

eP 12:29:19.5
eS 27.1
Distance 129 Km

eP 17:01:42.7
e 57
Seismic?

Nov.29 1964
iP 21:58:43.7
iS 59:00.5
Dilatation
Distance 148 Km

eP 23:58:30
iS 39.2
Distance 72 Km

30 eP 00:17:21
i(pP) 28.8
iPPP 54.8
eS 18:54
eSS 19:10.5
Distance 810 Km

eP 02:13:39
eS 15:29
Distance about 10°

Nov.30 1964
eP 04:24:07.2
e(S) 25:53.2

eP 05:57:34.6
eS 59:11.2
Distance 950 Km

eP 07:35:27.4
iS 41.7
Dilatation
Distance 122 Km

eP 09:13:26.5
iS 38.9
Dilatation
Distance 104 Km

eP 10:52:57.6
e($P_g$ 53:45
iS 54:10.1
Distance 705 Km

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## PROVISIONAL READINGS AT PELDEHUE.

Nov30 1964
ePKP 12:47:28.6
e 45.6
e 51:10
Further phases unreadable

iP 12:52:08.2
iS 28.0
Distance 178 Km

iP 17:46:35.4
eS 51.2
Distance 138 Km

Dec.01 1964
eP 04:14:48.6
iS 59.2
Distance 86 Km

eP 11:29:16.1
eS 44.5
Distance 264 Km

eP 12:08:08
eS 21.6
Small
Distance 116 Km

eP 15:40:50
eS 41:04.9
Small
Distance 129 Km

eP 19:32:42
eS 33:18.4
Distance 342 Km

eP 19:58:59.3
eS 59:28.8
Distance 275 Km

Dec.02 1964
eP 07:20:12.6
eS 50.4
Distance 356 Km

eP 08:18:44.4
e(S) 22:24.6

eP 11:50:08.7
iS 27.5
Distance 168 Km

03 eP 04:38:35.8
eS 55.7
Compression from NE
Distance 180 Km

eP 11:15:56.1
eS 16:21.5
Distance 234 Km

ePn 14:59:41
eP* 15:00:05.5
eSn 01:12
Distance 760 Km

eP 19:58:33.5
eS 43
Distance 75 Km

Dec.03 1964
e 20:19:04.5

eP 21:13:19
iS 29.4
Distance 85 Km

eP 21:26:21.6
eS 30.7
Distance 70 Km

eP 21:35:24.5
eS 39
Distance 125 Km

04 eP 03:26:54.5
eS 27:13.5
Distance 170 Km

eP 09:24:06
eS 26:30
eG 27:00
eSSS 05.5
eR 15.5
Distance 12.5°

eP 16:44:09
eS 19
Distance 80 Km

05 eP 03:32:15.5
eS 26.4
Distance 90 Km
Small

Dec.05 1964
eP 04:49:11
eS 28.5
Distance 155 Km
Small

eP 05:37:41.2
eS 54
Distance 110 Km

eP 13:04:45.5
iS 05:28
Distance 400 Km

eP 21:19:07.6

06 eP 00:31:33.2
eS 32:22.5
Distance 470 Km

e 02:45:--

eP 06:53:01.5
eS 11.3
Distance 88 Km
Small

eP 10:57:36.3
eS 53.3
Distance 150 Km

eP 11:26:06.2
eS 58
Distance 500 Km

E. Lorca
Seismologist

## PROVISIONAL READINGS AT SOMBRERO

Nov.30 1964
eL 00:25:12
e 12:49:--

Nov.30 1964
e 13:29:--
eR 38:28

H. Becker
Seismologist

## PROVISIONAL READINGS AT COPIAPO.

27° 21′ 15″ S 70° 21′ 04″ W h = 384 mts.

Nov.27 1964
e(S) 11:00:55

30
e(P) 10:52:42
eS 52

Dec.02 1964
eP 08:18:56
eS 19:45
Distance 445 Km

03 eP 12:22:19
eS 28
Distance 70 Km

Dec.03 1964
eP 14:58:31
eS 39
Distance 65 Km

04 eP 19:20:51
eS 21:02
Distance 90 Km

L. Cabello
Seismologist

## PROVISIONAL READINGS AT CONCEPCION

36° 49′ 41″ S 73° 02′ 42″ W h = 46 mts.

Nov.29 1964
eP 04:38:18
eS 39
Distance 170 Km

eP 18:04:56

Nov.30 1964
eP 00:16:27
eS 48
Distance 170 Km

Nov.30 1964
eP 03:52:14

eP 09:59:34

A. Sickinger
Seismologist

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# PROVISIONAL READINGS AT ANTOFAGASTA

23° 42′ 18″ S 70° 24′ 55″ W h = 80 mts.

Nov.24 1964
e(PSP) 13:19:00
eSS 25.9
eSSS 31:13
eL 41.1

iP 22:07:44.0
iS 08:20.5
Compression from ESE
Distance 380 Km

25 eP 04:36:25.2
i 26.1
iS 57.2
Distance 270 Km

eP 08:52:23.0
eS 44.5
Distance 190 Km

ePKP 09:42:48.9
i 53.5

e(P) 20:18:20.8
eS 48

iP 20:29:23.7
i(S) 38.7
i 44.0
Dilatation from N

iP 20:35:42.2
local
Compression

26 eP 01:43:25.8
eS 46.3
Dilatation ?
Distance 180 Km

e(P) 07:22:06.6
i(S) 43.4

eP 08:50:11.2
i 11.8
eS 31.9
Dilatation
Distance 180 Km

eP′1 10:41:14
ePP 46.2
eSS 11:07:(08)
eSSS 13.8
e(G) 30.7
eR 38.1
Distance about 168°

No record from 12:40 to 22:20

Nov.26 1964
eP 23:54:39
eS 48.1
Distance about 70 Km

27 e(P) 06:59:42.0
e 07:00:06.0
eS 49.6

iP 10:59:53.7
eS 11:00:29.1
Compression from E
Distance 310 Km

eP 11:28:45
eS 17.0
Distance about 270 Km

No record LP from 27-X1-64 at 12:15 to 28-X1-64 at 14:25

28 iP 16:44:48.9
eS 47:25.2
e 51:40.9
Compression from N
PZ = 0.46 u, 0.7 sec.
Magnitude about 6 1/2
Distance 14°

iP 16:52:44.9
eS 55:20.7
e 59:36.8
Compression from N
PZ = 0.62 u, 0.7 sec.
Magnitude about 6,7
Distance 14°

eP 19:41:08.8
eS 51.6
Distance 400 Km

eP 23:07:17.6
eS 46.4
Distance 260 Km

29 e(P) 03:29:25.4

eP 05:20:49
eS 21:(31.5)

eP 08:52:30.9
eS 53:07.7
Distance 330 Km

eP 11:14:16.0
eS 55.9
Distance 360 Km

Nov.29 1964
eP 12:32:34
PZ = 0.08 u, 0.7 sec.

e(P) 17:02:43
e(S) 12:45

i(PKP) 17:13:01.9
Compression from N

eP 18:56:19.1
iS 26.4
Compression
Distance 60 Km

iP 22:55:50.2
iS 56:41.8
Distance 490 Km

30 eP 00:19:32.7
e(S) 22:25
PZ = 0.06 u, 1.0 sec
Magnitude about 5
Distance about 15 - 16°

eP 03:11:49.5
e(S) 12:21.2

eP 07:00:25
local

eP 07:00:53.0
local
compression

eP 08:11:02
e(S) 28.9

iP 11:32:55.1
eS 33:13.6
Compression from NE
Distance 160 Km

eP 11:53:12
eS 54:16.5
Distance about 630 Km

eP 20:00:19.7
eS 58.5
Distance 350 Km

eP 21:57:54.9
eS 58:12.2
Distance 110 Km

Dec.01 1964
eP 03:55:32.6
eS 56:07.7
Distance 310 Km

eP 04:58:39.0
eS 59:16.0
Distance 330 Km

eP 11:15:19.6
eS 44
Distance about 210 Km

eP 13:43:13.3
eS 31.5
Distance 160 Km

eP 14:44:05.2
eS 43.3
Distance 340 Km

eP 16:38:00.1
eS 37.7
Distance 340 Km

eP 22:54:02.0
eS 10.2
Distance 70 Km

02 eP 07:09:05
e(S) 18.4

eP 07:09:17
eS 10:25
i 27
Distance about 660 Km

eP 07:46:12
eS 30
Distance about 160 Km

iP 08:18:03.8
iS 24.0
Compression from E
Distance 180 Km

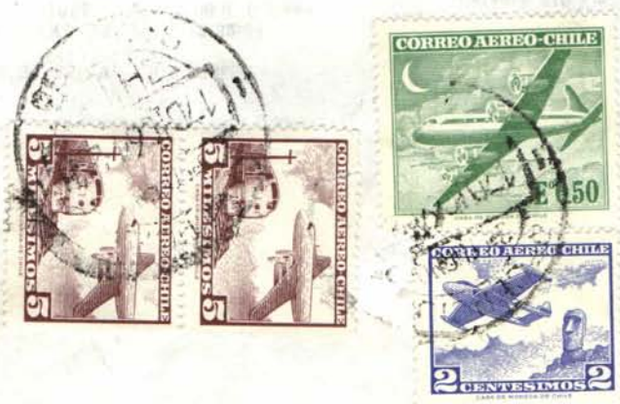
eP 08:30:00.5
eS 40.2
Distance 360 Km

eP 11:12:00.4
iS 05.5
Dilatation
Distance 40 Km

J. Frez
Seismologist.

INTERNATIONAL SEISMOLOGICAL SUMMARY
KEW OBSERVATORY
RICHMOND, SURREY, INGLATERRA.

IMPRESO AEREO



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## PROVISIONAL READINGS AT SANTIAGO.
(Santa Lucía)

33° 26′ 40″ S 70° 38′ 54″ W h = 581 mts.

Dec.07 1964
eP 09:17:37.7
eL 09:55:--
eP 12:18:12.5
eS 44.5
Dilatation
Distance 300 Km

08 eP 09:18:12
e(S) 38
eL 09:21:06
eP 12:32:30
eS 33:35.5
Distance 635 Km

eP 19:18:09.5
eP 23:52:26
eS 53:20.6
Distance 525 Km

09 eS 02:00:03
eP 08:02:05.4
eS 30.5
Distance 230 Km

eP 10:34:10.2
eS 40.5
Distance 285 Km

eL 11:37:--
iP 13:37:46.5
eS 39:28
Distance 9°

eP 16:47:09

10 eP 02:00:55.8
eS 01:14
Distance 160 Km

eP 05:13:43.5
eS 14:05.6
Distance 200 Km

Dec.10 1964
eP 15:16:56
eS 22:20
eSS 24:32
eR 26:18
Distance 34°

eP 15:30:57

eP 21:35:22.5
eS 36.4
Distance 120 Km

11 iP 05:35:28.5
eS 46
Distance 155 Km

iP 06:33:45.6
eS 34:06
Distance 184 Km

eP 06:49:31.5
eS 50.2
Distance 167 Km

eP 07:57:15.8
eS 39.3
Distance 215 Km

eP 09:16:53
eS 17:20.5
Distance 250 Km

eP 14:01:37
eS (47.2)

eP 14:52:03.7
eS 22.3
Distance 165 Km

eP 15:15:51.5
eS 16:11
Distance 176 Km

12 eP 14:21:08.7
eS 28
Distance 170 Km

eP 15:25:41
eS 53.5
Distance 105 Km

Dec.12 1964
eP 16:00:(25)
eS 01:37

eP 18:26:16.9
eS 35
Distance 160 Km

eP 18:53:53.6
e(S) 54:36

eP 21:05:59.2
iS 06:11.2
Distance 100 Km

13 eP 15:15:15.5
eS 54
Distance 365 Km

eP 16:28:02.2
eS 14
Distance 100 Km

14 eP 00:27:13.5
e(S) 41

eP 01:03:18
eS 27.5
Distance 75 Km

eP 02:08:09.6
eS 15:30
eG 20:52
eR 22:57
Distance 52°

eP 15:21:42.5
eS 22:(00)
On time mark

iP 19:33:23
eS 32
Distance 70 Km
Felt II at Stgo.

Dec.14 1964
eP 21:40:39.5
eS 41:09
Distance 275 Km

15 eL 06:33:--

eP 12:22:23
e(S) 29:42
e 32:44

16 eP 04:14:52.2

eP 04:29:39.6
eS 57.7
Distance 160 Km

iP 06:27:53.5
eS 28:(14)

eP 08:19:20.3
eS 30.2
Dilatation
Distance 80 Km

iP 19:15:54.4
eS 16:(04)

17 eP 05:38:15.5
e(S) 30.2

eP 05:58:(46)
eS 59:20

iP 07:15:03
eS 31.5
Dilatation
Distance 265 Km

eP 10:13:52.5
i 56
e 14:11.4

eP 13:57:46.4
eS 58:02
Distance 136 Km

H. Becker.
Seismologist.

## PROVISIONAL READINGS AT PELDEHUE.

33° 08′ 37″ S 70° 41′ 07″ W h = 690 mts.

Dec.06 1964
eP 18:11:(12)
eS 46.3
Small

eP 22:34:01.5
eS 32.3
Distance 330 Km
Small

07 eP 09:04:03.7
eS 12.5
Distance 90 Km

eP 09:17:38.6

eP 12:18:13
eS 42.5
Distance 275 Km

Dec.07 1964
iP 14:29:19
iS 35.5
Compression from W
Distance 145 Km

08 eP 09:18:09.5

eP 09:37:30

eP 11:10:57.6
eS 11:24
Distance 245 Km

eP 12:32:26.6
eS 33:(28)

eP 19:18:15.2
eS 32.7
Distance 155 Km

Dec.08 1964
e 21:05:03

eP 23:52:22
e 53:11.5
eS 15.5
Distance 515 Km

09 eP 01:59:43.5
eS 02:00:05
Distance 195 Km

eP 07:13:(24.5)
eS 35.5

eP 08:02:02
eS 25.2
Distance 210 Km

Dec.09 1964
eP 10:01:50.5
e(S) 02:24

eP 10:34:07.5
eS 36.6
Distance 270 Km

eL 11:36:--

iP 13:37:45.5
iS 39:26
Dilatation from SE?
Distance 8.5°

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## PROVISIONAL READINGS AT PELDEHUE.

Dec.09 eP 16:47:04.5
1964 ePP 17
eS 49:41.3
eSSS 50:11.5
eR 58.5
Distance about 14°

eP 20:36:57
eS 37:11.1
Distance 120 Km

10 iP 02:00:54.5
iS 01:12
Distance 155 Km

iP 05:13:42
eS 14:01
Distance 170 Km

eP 15:16:56.8
eS 22:20
eSS 24:28
eR 26:38
Distance 34°

eP 15:30:57

eP 19:21:12.6
eS 41
Distance 265 Km

eP 19:46:55.5

iP 23:35:26.6
Dilatation

11 eP 03:15:59.7
eS 16:11
Distance 90 Km

iP 05:35:27.3
iS 45
Compression from NE?
Distance 160 Km

iP 06:33:44.8
eS 34:02
Distance 150 Km

eP 06:49:30
eS 48
Distance 160 Km

eP 07:57:12.5
eS 33.7
Distance 190 Km

Dec.11 eP 09:16:50.7
1964 iS 17:14.3
Distance 210 Km

eP 11:31:33.6
e(S) 50.6

iP 14:01:35.5
iS 46
Compression
Distance 85 Km

eP 14:52:02.3
eS 19.7
Distance 155 Km

eP 15:15:50.6
eS 16:08
Distance 155 Km

12 eP 14:21:12.4
eS 32
Distance 175 Km

eP 15:25:42.3
eS 55.5
Distance 110 Km

eP 16:00:23.5
eS 01:30.5
eR 57.3
Distance 650 Km

eP 18:26:13.5
eS 29.2
Distance 140 Km

eP 18:53:48.8
eS 54:32
eR 43
Distance 410 Km

eP 21:06:01.5
eS 15.5
Distance 120 Km

eP 22:40:02.5

13 iP 15:15:14.5
iS 53
Dilatation
Distance 365 Km

eP 16:28:03.5
eS 17.0
Dilatation
Distance 115 Km

Dec.14 eP 00:27:09.5
1964 eS 31.5
Compression
Distance 200 Km

eP 01:03:20.3
eS 29.8
Dilatation
Distance 75 Km

eP 02:08:14.5
ePP 10:26
eS 15:36
eSS 19:11
eG 20:17
eR 22:58
Distance 52.5°

eP 08:17:45.5
eS 54.6
Distance 70 Km

eP 15:21:47
eS 22:11.5
Distance 225 Km

eP 19:33:22.3
e(S) 30

eP 21:40:36
eS 41:02.5
Distance 245 Km

15 eP 05:25:58.8

eP 12:22:21.5
eS 29:38
eR 37:38
Distance 52°

eP 14:48:51.5
e 54.3
Local

16 eP 00:32:58
eS 33:17.5
Compression

Distance 175 Km

eP 04:14:51.7
e 15:00.6

eP 04:29:42.4
eS 30:01.5
Distance 170 Km

iP 06:27:50.3
iS 28:06.4
Dilatation
Distance 140 Km

Dec.16 eP 08:19:21.7
1964 eS 32.6
Distance 90 Km

eP 10:53:38.6
eS 52
Distance 114 Km

iP 19:15:54.5
iS 16:03
Dilatation
Distance 65 Km

17 eP 05:38:16

eP 05:58:42.7
eS 59:14
Distance 310 Km

eP 07:14:59.6
eS 15:26.2
Dilatation
Distance 245 Km

ePn 10:13:48
eSn 51.6
Distance 580 Km

eP 13:57:44
eS 58
Distance 120 Km

eP 20:49:38
eS 50:21.5
Distance 415 Km
Small

eP 21:20:28.5
eS 21:09.5
Distance 390 Km
Small

18 eP 12:55:17.5
iS 49.5
Dilatation
Distance 300 Km

eP 13:09:21.8
eS 29.4
Compression
Distance 55 Km

iP 17:00:19.6
iS 30.7
Distance 90 Km

H. Becker
Seismologist

## PROVISIONAL READINGS AT SOMBRERO.

Dec.03 eL 04:37:--
1964

06 eP 16:51:19.5
eS 52:23
eL 44
Distance 615 Km

Dec.09 eP 13:40:28.2
1964 eL 43:--

10 e 15:24:54
eL 26:10

Dec.11 eP 04:57:47.0
1964 eS 58:07.5
e 13
Distance 185 Km

H. Becker
Seismologist

## PROVISIONAL READINGS AT COPIAPO

27° 21′ 15″ S 70° 21′ 04″ W h = 384 mts.

Dec.06 eP 16:47:58
1964 eS 46:07
Distance 70 Km

07 eS 09:04:02

Dec.07 eP 15:37:50
1964 eS 38:05
Distance 120 Km

08 eP 12:31:43
eS 32:06
Distance 185 Km

Dec.08 e(S) 21:03:39
1964

eP 23:52:39
eS 44
Distance 40 Km

Dec.09 iP 15:37:25
1964 iS 38:49
Distance 795 Km

12 eP 21:29:55
eS 30:13
Distance 145 Km

L. Cabello
Seismologist

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## PROVISIONAL READINGS AT CONCEPCION.

36° 49′ 41″ S 73° 02′ 42″ W h = 48 mts.

Dec. 12 1964
eP 13:36:25.5
eS 38:29
Distance 1 100 Km

10 e(P) 15:21:39.5
e(S) 25:40
Telseism

12 eP 14:21:06.7
eS 19
Distance 100 Km

Dec. 13 1964
eP 16:29:30

eP 17:51:44.5
eS 48.5
Distance 82 Km

14 e(P) 19:33:58
eS 34:54
Distance 515 Km

17 eP 21:25:46.5

Dec. 19 1964
eP 08:14:58

eP 10:01:30
eS 49.5
Distance 155 Km

eP 11:48:40
eS 49:00
Distance 160 Km

eP 11:50:29.5
eS 48
Distance 150 Km

Dec. 19 1964
eP 12:18:45
eS 19:03
Distance 145 Km

eP 12:53:46
eS 54:07
Distance 170 Km

20 eP 08:45:29.5
eS 46:20
Distance 460 Km

A Sickinger.
Seismologist

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## PROVISIONAL READINGS AT ANTOFAGASTA.

23° 42′ 18″ S 70° 24′ 15″ W h = 80 mts.

Dec. 02 1964
iP 13:44:38.7
e(S) 45:13.9
i 15.1
Compression from ESE

eP 16:55:08.1
e(S) 16.6
i 17.4

03 ePP 04:10:39
eSKKS 17.6
ePS 20:16
e 39
eSPP 21:55
eSS 27.7
eSSS 32.0
e(G) 41.4
eR 47.5
From SE
Distance about 128°

e(P) 04:54:12.5
eS 47.2
i 48.2

e(P) 09:58:53.0
eS 59:29

eP 13:45:35
e(S) 48.2
i 55.2

eP 14:59:09.6
local

eP 17:01:29.5
e(S) 55.9

iP 18:41:40.8
iS 58.2
Dilatation from S
Distance 150 Km

04 eS 02:09:52
eR 15:53
From NW
Distance about 46-48°

Dec. 04 1964
eP 02:57:04.0
eS 42.0
Distance 340 Km

eP 04:45:25.3
i 26.5
e(S) 46.8

e(P) 09:22:05.1
i 06.4
iS 36

eP 13:22:46.2
eS 23:23.9
Distance 340 Km

eP 13:36:08.7
eS 56.7
Compression
Distance 460 Km

ePP 16:10.0
eSKP 11:17
eSS 27.5
eG 42.4
eR 49.6
Doubtful interpretation

eP 18:03:20.6
eS 04:05.7
Distance 420 Km

eP 18:39:46.2
eS 40:45.5
Two shocks?

eP 20:05:52.7
e 06:06.3
eS 20.8
Distance 250 Km

05 eP 13:24:24.3
eS 25:03.2
Distance 350 Km

eP 15:29:35.2
eS 30:13.5
Distance 350 Km

Dec 05 1964
eP 15:44:48.7
eS 45:06
Distance 160 Km

eP 20:58:09.5
eS 45.1
Distance 320 Km

e(P) 21:20:11.8

06 eP 02:45:51
eS 54:22
eG 03:01
eR 03:56
e 04:10
From SW
Distance about 63°

eP 03:17:32.0
i 32.9
eS 18:55.8
i 58.7
Distance 220 Km

eR 08:56:51
From WNW

eP 10:05:42
i 43.1
eS 06:03.9
Distance 200 Km

eP 10:43:32.2
eS 44:05.5
i 06.6
Distance 290 Km

Power failures from
6-XII-64 at 15:00 to
7-XII-64 at 16:00

eP 23:21:26.3
eS 47.4
Distance 190 Km

08 eP 07:13:54.0
eS 14:10.6
Distance 140 Km

Dec. 08 1964
e(P) 08:37:09
e 38:14

eP 09:17:06.0
i 10.5

eR 09:19:33

eP 09:25:53.2
i 53.6
local

eP 10:53:23.6
eS 58.8
Dilatation
Distance 310 Km

eP 13:52:58.6
eS 53:24.7
Distance 240 Km

eP 18:27:27.3
eS 28:03.0
i 04.6
Distance 320 Km

09 eP 03:40:58.6
eS 41:36.3
Distance 340 Km

eP 06:37:15.2
e(S) 48

eR 06:56.0
From SW

eP 11:03:12.0
e(S) 36.0

e 11:35.1
eR 38:52
From SW

eP 15:26:23.0
eS 44.4
Distance 190 Km

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# PROVISIONAL READINGS AT ANTOFAGASTA.

Dec. 09 1964
eP 15:46:36
eS 47:12.2
Distance about 320 Km

iP 15:55:11.0
e 56:43
i 45.4
local
Compression
Two shocks?

iP 16:44:59.3
iS 45:37
Dilatation from N
PZ = 0.24 u, 0.8 sec.
Distance 340 Km

e(PKP)19:17:10

iP 23:03:40.5
eS 04:23.6
Compression from ENE
Distance 400 Km

10 eP 05:12:16.4
eS 55.6
Distance 350 Km

e(P) 08:15:39.9
eS 53

eP 15:17:31.5
e 22.5
eS 23:16
e 25.8
eR 27:07
Compression from WSW
Distance about 37°

ePKP 15:30:52.1
i 56.4
Doubtful interpretation

eP 19:41:15.7
e(S) 38.4
i 47.8

ePKP 23:50:41.7
Dilatation ?

11 eP 10:14:19.2
eS 54.9
Distance 320 Km

eP 18:42:14.9
iS 36.9
Distance 200 Km

12 iP 04:04:04.7
iS 09.7
Small local
Compression from N
Distance 40 Km

iP 06:33:45.9
iS 34:21.1
Compression from E
Distance 310 Km

iP 08:00:47.3
iS 01:10:
Compression from ENE
Distance 290 Km

eP 11:10:43.7
iS 11:27.0
Compression from NE
Distance 400 Km

eP 12:14:04.6
eS 39.8
Distance 310 Km

eP 14:21:22
e(S) 53

Dec.12 1964
eP 17:01:04.6
eS 40.4
i 41.4
Compression
Distance 320 Km

eP 19:16:19.8
iS 45.6
Compression ?
Distance 230 Km

iP 19:22:45.6
iS 50.2
Small local
Compression
Distance 40 Km

eP 20:03:35.7
eS 04:09.6
Distance 300 Km

iP 20:17:11.8
eS 54.5
Dilatation from ENE
Distance 390 Km

iP 20:27:40.8
i(S) 47.0
Compression from ENE

13 eP 00:08:24.1
eS 54.2
Distance 270 Km

iP 02:03:17.7
eS 56.6
Compression from ESE
Distance 350 Km

eP 07:44:02.2
local

eP 07:44:30.7
local

iP 13:26:58.5
local
Compression

iP 13:27:34.0
iS 28:10.3
Compression
Distance 320 Km

eP 14:57:09.0
eS 27.1
Distance 160 Km

eP 15:16:25.5
e(S) 17:53

eP 15:26:30.1
e(S) 47.0
i 47.5

eP 16:09:15.2
e(S) 25.1
i 26.4

eP 16:14:48
eS 15:20.6
Distance about 290 Km

eP 16:16:10.2
eS 39.9
Distance 280 Km

eP 17:12:39.2
eS 13:00.3
Distance 190 Km

eP 17:54:14
eS 34.3
Distance about 180 Km

Dec.13 1964
eP 17:57:15.9
eS 55.7
Compression
Distance 360 Km

eP 21:43:49.9
eS 44:17.5
Distance 250 Km

eR 22:27.0

14 iP 00:45:42.8
iS 46:22.6
Compression from ESE
Distance 360 Km

eP 02:09:01
eS 17:08
eSS 20:51
eG 22:53
eR 26:50
Dilatation from SSE
MH = 37 u, 22 sec.
Magnitude 6 1/2

eP 03:09:55.9
local
Dilatation

iP 03:10:24.6
local
Compression

eP 06:00:43.4
eS 01:22.2
Distance 350 Km

eP 10:25:16.3
e(S) 57.2
i 59.6

eP 11:43:07.2
eS 36.8
Distance 270 Km

eP 17:17:59.2
eS 18:08.3
Distance 70 Km

eP 17:24:33.9
iS 39.1
Dilatation
Distance 40 Km

e(P) 17:41:53.3
e(S) 42:31.0

iP 20:33:31.0
iS 35.8
Compression from NNE
Distance 40 Km

iP 21:29:18.2
iS 23.3
Compression from N
Distance 40 Km

15 eP 02:58:31.0
eS 58.7
Distance 250 Km

e(P) 05:18:08.1
i 08.5
eS 48.4
Dilatation
From E
Distance 360 Km

e(PKP)05:26:19.4
Compression

eP 06:14:58.1
e(S) 15:18.0
Compression from NNW

Dec.15 1964
eP 06:32:28.6
i 29.2
eS 33:15.7
Dilatation
From E
Distance 440 Km

eP 06:57:08.2
i 09.5
i(S) 42.0

eP 07:04:49.0
e 05:16.0
e(S) 30
Two shocks?

eP 09:54:14.0
eS 50.0
Distance 320 Km

eP 11:07:15.8
local

e(P) 12:12:40.2
eS 56.0

iP 12:21:19.8
epP 38.1
e(SP) 49
ePP 23:17
e 27.5
iS 27:45
e 28:21
eG 31:10
eR 33.9
Dilatation from NNW
PZ = 0.45 u, 1.3 sec.
Mag. about 6,2
h about 60 Km
Distance 44°

eP 14:51:12.3
e(S) 43.0

eP 16:25:40.0
eS 26:24.7
Dilatation from NE
Distance 420 Km

eP 21:53:54.7
eS 54:31.5
Distance 330 Km

eP 22:20:22.1
eS 35.8
Distance 120 Km

16 iP 03:14:28.4
iS 45.7
Dilatation from E ?
Distance 150 Km

ePKP 04:15:02.7
Compression ?

e(P) 14:22:31.5
eS 50.2

eP 17:43:17.9
eS 34.0
Distance 50 Km

eP 20:13:14.1
e(S) 50.8

17 e(P) 01:28:35.7
eS 29:00.5

iP 03:56:30.7
i(S) 51.1
i 55.1
Compression from N

eR 06:23.7
From WNW