

HUANCAYO (PERU)



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January - June 1963.

INSTITUTO GEOFISICO DEL PERU MINISTERIO DE FOMENTO

HUANCAYO PRELIMINARY BULLETIN N° 01-63

APARTADO N° 46, HUANCAYO-PERU

JANUARY - 1963

*copied to
end of March
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Unless otherwise noted, readings refer to 1st. motion at Huancayo

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- ✓ JANUARY 01 04 09 40, 08 29 37 (S 08 29 55), 08 38 16, 10 00 06 (S 10 00 29), 10 47 33, 11 14 59, 17 42 36, 20 19 25 (S 20 19 50), 22 17 36, 23 52 29.
- ✓ JANUARY 02 00 02 58, 01 23 08, 03 14 50 (S 03 15 06), 03 21 41, 08 55 30, 09 24 38, 09 58 47, 11 26 38, 15 15 44, 16 05 06, 18 09 23, 20 56 19.
- ✓ JANUARY 03 03 24 56, 07 07 45 (S 07 08 03), 07 14 59, 07 17 55 (S 07 18 12), 07 28 52 (S 07 29 08), 07 33 51 (S 07 34 07), 07 40 09, 08 10 23, 09 58 54, 10 41 14.
- ✓ JANUARY 04 00 32 41, 00 48 58, 01 34 52, 02 59 12, 10 22 08 (S 10 22 23), 12 16 23, 18 24 13, 21 21 21.
- ✓ JANUARY 05 11 06 22 (S 11 07 02), 12 32 48, 13 36 38, 17 45 14 (S 17 46 32), 21 50 36 (S 21 50 59).
- ✓ JANUARY 06 03 02 03, 06 20 09, 20 06 55, 22 19 02 (S 22 19 32), 23 33 39 (S 23 33 53).
- ✓ JANUARY 07 03 29 58, 08 45 04, 12 08 26, 18 28 00 (S 18 28 26), 21 39 48.
- ✓ JANUARY 08 02 43 04, 03 25 31, 03 41 12, 05 26 28, 07 49 12, 08 55 58 (S 08 56 25) 16 06 15, 22 09 15, 22 41 38 (S 22 41 49).
- ✓ JANUARY 09 00 48 27, 03 32 32, 04 12 46, 04 35 12, 06 52 42, 07 12 20, 09 12 43, 13 58 16 (S 13 58 28), 22 28 14 (S 22 28 29).
- JANUARY 10 00 40 12 (S 00 40 46), 03 15 07, 07 35 38, 16 14 22.
- ✓ JANUARY 11 00 48 59, 08 36 33, 08 53 39, 10 03 15, 10 08 46 (S 10 09 01), 10 11 40 (S 10 11 56), 12 17 36, 21 36 08.
- ✓ JANUARY 12 00 40 30, 01 24 45, 03 44 24, 08 51 03.
- ✓ JANUARY 13 02 58 51 (S 02 59 18), 06 10 43 (S 06 11 08), 11 27 17 (S 11 27 45), 17 24 56.
- JANUARY 14 00 49 47, 01 56 09, 03 09 55 (S 03 10 08), 08 28 41, 17 11 53 (S 17 12 05), 19 36 05 (19 36 26),
- ✓ JANUARY 15 02 04 26, 02 45 20, 03 15 13, 04 33 18, 06 37 55, 08 11 10, 10 19 57, 22 27 58.
- JANUARY 16 00 44 40, 03 24 26, 03 57 09, 14 12 26, 15 25 24, 18 29 06, 20 22 49.
- JANUARY 17 00 43 31, 03 09 20 (S 03 09 32), 04 23 18 (S 04 24 08), 04 39 50, 10 56 48, 12 12 02, 15 29 27, 16 26 32, 17 20 37, 19 31 58.
- ✓ JANUARY 18 01 41 57, 02 00 15 (S 02 00 17), 03 30 55, 03 40 47 (S 03 41 02), 06 07 43, 07 22 45, 16 43 14, 21 51 36, 23 49 44.
- JANUARY 19 00 06 26, 00 11 10 (S 00 11 24), 00 41 05, 02 02 37, 07 36 50, 08 06 30, 11 34 56, 15 10 19, 21 17 34, 22 52 40.

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- JANUARY 20 01 04 06, 06 45 02, 07 30 36, 08 05 32, 08 29 22, 10 52 28, 13 07 16
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- JANUARY 21 02 33 22, 04 20 40, 07 10 51, 15 02 20, 17 22 50, 19 54 20 (S 19 54 48).
- JANUARY 22 05 36 55, 08 32 50, 11 48 00 (S 11 48 36), 13 14 25, 18 00 57, 18 19 07,
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- JANUARY 23 06 24 04, 11 29 02 (S 11 29 05), 13 27 44, 16 56 41, 17 24 34.
- JANUARY 24 00 36 34 (S 00 36 51), 00 53 02 (S 00 53 15), 02 10 13, 02 57 27, 12 56
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- JANUARY 25 01 38 25 (S 01 38 39), 05 55 29 (S 05 55 45), 07 28 15, 08 27 36, 09 11
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- JANUARY 26 01 44 38 (S 01 45 03), 21 16 31, 21 24 29, 23 32 35 (S 23 32 42).
- JANUARY 27 ✓ 01 13 29 (S 01 14 04), 01 26 43, 02 34 32 (S 02 34 38), 05 31 57, 17 53
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- ✓ JANUARY 28 00 00 23, 01 21 07, 02 13 45 (S 02 14 10), 09 08 38 (S 09 08 55), ✓ 12 31
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- ✓ JANUARY 29 02 07 27, 03 53 19, 04 35 37, 17 03 26, 19 47 53, 20 36 13, 21 50 29,
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- ✓ JANUARY 30 05 50 13, 08 33 04, 10 00 23 (S 10 00 26), ✓ 10 19 47, 20 38 30, 20 41 32
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- ✓ JANUARY 31 ✓ 05 26 38, ✓ 15 07 37.

August 19, 1963

Seismological Department

INSTITUTO GEOFISICO DEL PERU
MINISTERIO DE FOMENTO
HUANCAYO PRELIMINARY BULLETIN N° 02-63
APARTADO N° 46, HUANCAYO-PERU
FEBRUARY - 1963

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g.B.*

Unless otherwise noted, readings refer to 1st. motion at Huancayo

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✓ FEBRUARY 05 04 07 55, 05 03 20, 09 35 13, 16 12 14, 16 53 04, 18 25 22, 20 44 56.

✓ FEBRUARY 06 01 27 05, 02 04 05, 02 15 32, 03 32 12, 07 05 05 (S 07 05 16), 07 06 24, 11 15 21, 13 24 11, 19 08 01, 21 47 25, 22 46 56.

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✓ FEBRUARY 09 00 07 11, 00 35 48, 04 14 23, 05 00 06, 07 58 53 (S 07 58 23), 09 47 24, 10 36 57 (S 10 37 10), 10 46 23 (S 10 46 28), 11 19 54, 12 51 56, 17 50 52 (S 17 51 08), 18 48 16 (S 18 48 30), 23 00 32.

✓ FEBRUARY 10 00 01 30 (S 00 02 06), 06 49 08, 07 37 14, 09 52 42, 13 28 50, 20 46 25, 21 48 18 (S 21 48 44).

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✓ FEBRUARY 13 15 41 38, 18 44 18.

✓ FEBRUARY 14 07 24 09, 08 36 30, 08 56 10, 09 04 31, 09 55 05, 12 17 39, 15 48 27, 22 27 13.

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✓ FEBRUARY 16 04 27 51, 10 03 31, 10 59 27, 11 05 18, 11 38 01 (S 11 38 24), 19 59 03 (S 19 59 29), 21 33 49.

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✓ FEBRUARY 20 06 51 36 (S 06 52 06), 11 52 26, 13 44 00 (S 13 44 17).

✓ FEBRUARY 21 03 44 29, 05 07 17, 05 26 55, 10 15 46, 11 57 54, 15 11 10 (S 15 11 12); 20 32 18.

✓ FEBRUARY 22 00 34 02, 02 22 43, 05 54 38, 07 26 51 (S 07 27 24), 09 40 34, 09 47 46 (S 09 47 57), 16 01 09, 21 20 01.

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✓ FEBRUARY 27 00 12 43, 00 27 04 (S 00 27 33), 00 58 00, 04 49 16, 07 47 13, 10 13 35, 11 01 37 (S 11 02 10), 21 13 31.

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August 21, 1963

Seismological Department

NOTE.- The values for February 12-13 were not available for inclusion in this Bulletin. They will be provided in a future issue.

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HUANCAYO PRELIMINARY BULLETIN N° 03-63

APARTADO N° 46, HUANCAYO-PERU

MARCH - 1963

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Unless otherwise noted, readings refer to 1st. motion at Huancayo

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MARCH 21 02 37 18(S 02 37 44), 06 45 42(S 06 46 40), 09 16 07(S 09 16 30), 09 28 02(S 09 28 32), 09 33 54, 13 46, 52, 21 28 03.

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 54 19(S 23 54 46).
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September 13, 1963

Seismological Department



I N S T I T U T O G E O F I S I C O D E L P E R U

MINISTERIO DE FOMENTO

HUANCAYO PRELIMINARY BULLETIN N° 04-63

ABARTADO N° 46, HUANCAYO-PERU

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Unless otherwise noted, readings refer to 1st. motion at Huancayo

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- ABRIL 01 06 06 29, 15 38 50, 18 09 52.
- ABRIL 02 01 01 54, 07 22 12, 14 13 46, 16 41 12(S 16 41 50), 17 18 54.
- ABRIL 03 01 37 53, 05 47 34, 12 02 30(S 12 02 50), 14 58 01, 17 00 07, 19 29 01, 21 09 38, 21 13 38.
- ABRIL 04 06 10 51, 08 27 38, 08 55 32, 16 01 01.
- ABRIL 05 05 23 07, 06 48 19, 15 01 34, 16 31 56, 16 50 49, 20 12 56.
- ABRIL 06 15 52 19.
- ABRIL 07 02 47 11, 09 13 26, 09 20 54, 15 27 36, 18 46 07, 20 23 08, 22 32 59, 22 56 04.
- ABRIL 08 06 01 58, 06 44 42, 08 30 58(S 08 51 17), 14 47 13.
- ABRIL 09 07 42 07, 10 41 35, 14 50 08, 16 50 23, 18 07 29, 22 47 59.
- ABRIL 10 02 05 09, 07 00 34, 08 10 24, 10 09 26(S 10 09 26), 14 58 12, 15 36 04, 18 51 37, 23 44 24.
- ABRIL 11 00 42/50, 03 57 16, 06 50 32, 11 41 29, 15 45 27, 18 18 17.
- ABRIL 12 01 01 16, 09 06 06, 11 50 45.
- ABRIL 13 01 20 55(S 01 21 05), 02 21 36, 02 22 24(S 02 22 54), 08 05 58, 11 07 20(S 11 07 40), 13 39 19(S 13 39 30), 14 51 02, 18 40 02, 21 50 20, 21 54 48.
- ABRIL 14 04 52 11(S 04 52 21), 08 21 24, 12 50 04, 18 22 33, 19 26 23(S 19 26 38) 21 18 34.
- ABRIL 15 05 43 48, 09 14 30, 09 22 53(S 09 23 06), 15 33 14, 18 46 28(S 18 47 02).
- ABRIL 16 01 49 18, 01 56 57, 02 15 11, 12 11 30, 12 23 37, 17 48 14(S 17 48 28), 19 52 59(S 19 53 11), 20 20 46.
- ABRIL 17 01 30 23(S 01 30 45), 02 29 31, 12 38 02, 14 16 31, 19 12 38.
- ABRIL 18 02 29 12(S 02 29 36), 03 23 42, 04 02 25, 05 19 52(S 05 20 08, 05 49 06(S 05 49 11), 11 50 19, 13 23 11, 16 29 36(S 16 29 55), 22 13 55(S 22 14 10), 23 43 06(S 23 43 35).
- ABRIL 19 02 49 32(S 02 49 46), 04 44 06, 07 53 00 (S 07 53 23), 07 55 16, 10 40 03, 15 09 52(S 15 10 11), 16 27 41, 16 48 51.
- ABRIL 20 05 50 49, 06 31 17(S 06 31 54), 11 14 32, 16 59 04, 23 08 19(S 23 08 40).

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May. 21, 1963

Seismological Department

I N S T I T U T O G E O F I S I C O D E L P E R U

MINISTERIO DE FOMENTO

HUANCAYO PRELIMINARY BULLETIN Nº 05-63

APARTADO Nº 46, HUANCAYO-PERU

MAYO - 1963

Unless otherwise noted, readings refer to 1st. motion at Huancayo

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June 4, 1963

Seismological Department

INSTITUTO GEOFISICO DEL PERU

MINISTERIO DE FOMENTO

HUANCAYO PRELIMINARY BULLETIN N° 06-63

AFARTADO N° 46, HUANCAYO-PERU

JUNE - 1963



Unless otherwise noted, readings refer to 1st. motion at Huancayo

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- JUNE 23 02 16 54 (S 02 17 06), 02 35 51 (S 02 36 09), 02 46 10 (S 02 46 14), 04 06 16 (S 04 06 42), 05 35 42, (S 05 36 10), 06 12 30 (S 06 12 46), 06 35 13, 06 49 39, 09 12 27, 14 13 23, 14 39 14 (S 14 39 42), 18 46 49, 19 02 14, 23 19 24.
- JUNE 24 00 08 07, 01 22 42, 04 14 42 (S 04 14 55), 04 39 52, 08 40 28, 09 49 47, 23 52 33 (S 23 52 45).
- JUNE 25 00 15 29 (S 00 15 44), 02 35 20, 03 20 26, 03 28 28, 07 01 14, 08 45 18, 10 46 32 (S 10 47 22), 12 52 02 (S 12 52 18), 18 11 49 (S 18 12 01), 18 55 22 (S 18 55 35).
- JUNE 26 01 03 40, 01 38 29, 04 02 17, 04 49 12, 05 26 28 (S 05 26 38), 06 39 58, 07 35 18, 10 01 29, 10 22 52 (S 10 23 10), 14 27 21, 17 47 16, 18 19 07 (S 18 19 29), 20 55 19.
- JUNE 27 06 01 02, 07 21 03, 08 56 29 (S 08 56 58), 09 41 05, 13 15 52 (S 13 16 06) 13 20 51, 17 25 50 (S 17 26 15), 19 45 42, 20 02 32.
- JUNE 28 01 32 05, 01 48 14, 09 10 14 (S 09 10 25), 10 15 15, 10 39 17, 10 57 49 (S 10 57 58), 13 59 37 (S 14 00 22), 16 21 53, 21 57 09, 22 14 39,
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- JUNE 30 04 42 01, 07 05 26, 07 54 35, 09 24 18 (S 09 24 34), 09 33 39 (S 09 35 34) 10 22 17 (S 10 22 22), 11 11 02, 12 45 00, 14 03 51, 15 38 04, 16 47 09 19 07 03 (S 19 07 17).

August 19, 1963

Seismological Department

INSTITUTO GEOFISICO DEL PERU

MINISTERIO DE FOMENTO

HUANCAYO PRELIMINARY BULLETIN N° 07-63

APARTADO N° 46, HUANCAYO-PERU

JULY - 1963

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- JULY 01 00 16 28, 00 54 22, 01 16 56, 02 12 58, 02 50 04, 05 04 54, 08 37 51,
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- JULY 02 02 55 15, 14 53 42 (S 14 54 07), 16 40 51, 19 27 04, 21 33 26.
- JULY 03 02 15 24, 09 58 04, 13 07 04, 13 20 29 (S 13 20 42), 18 42 17.
- ✓ JULY 04 00 37 41 (S 00 37 46), 06 19 14, 07 26 20, 08 08 12, 08 22 32, 10 31 21,
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- ✓ JULY 05 05 02 09, 05 09 07, 05 48 53 (S 05 49 21), 06 18 40 (S 06 19 11), 06 36
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- JULY 07 00 23 40, 02 24 12, 02 58 23, 03 18 57, 10 58 21, 11 13 27 (S 11 13 48),
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- JULY 08 02 35 50 (S 02 36 04), 05 43 00 (S 05 43 33), 06 34 22 (S 06 34 40),
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- ✓ JULY 09 01 17 31 (S 01 17 58), 02 26 44 (S 02 26 58), 03 44 27, 05 33 42, 06 42 31
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- ✓ JULY 12 06 48 05, 16 14 25, 17 59 34, 23 45 08. ✓
- ✓ JULY 13 05 57 48, 07 17 14 (S 07 17 59), 07 30 43, 08 43 29, 21 05 06, 23 36 40.
- ✓ JULY 14 00 15 40, 02 52 26 (S 02 52 54), 02 54 18 (S 02 54 46), 03 42 28, 03 55
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- ✓ JULY 18 01 55 23 (S 01 55 53), 03 14 44, 05 08 31, 05 27 08, 11 18 15, 15 10 16,
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- JULY 19 00 21 32, 00 43 11, 04 05 07, 04 20 30, 04 40 11, 05 58 45, 07 06 46,
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- JULY 23 03 04 28, 04 25 44 (S 04 25 59), 04 35 36 (S 04 36 12), 05 53 52 (S 05 54
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- JULY 25 07 08 34, 20 33 39, 22 13 52 (S 22 14 09).
- JULY 26 05 42 10, 08 21 56, 19 18 38 (S 19 18 59), 23 49 27 (S 23 50 17).
- JULY 27 04 44 04, 06 58 30, 07 21 46 (S 07 21 59), 08 36 27, 09 06 39, 16 55 17.
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- JULY 29 06 28 25, 08 24 08 (S 08 24 16), 10 41 34, 11 41 18, 14 13 24 (S 14 13 41)
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- JULY 31 03 58 12 (03 58 38), 04 01 00, 04 18 05, 08 08 28 (S 08 08 54), 08 53 04,
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August 19, 1963

Seismological Department

INSTITUTO GEOFISICO DEL PERU

MINISTERIO DE FOMENTO

HUANCAYO PRELIMINARY BULLETIN N° 08-63

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- AUGUST 01 00 11 20, 05 16 32, 06 32 35(S 06 32 59), 10 25 00, 11 01 57, 13 10 22, 18 31 35.
- AUGUST 02 03 40 38 (S 03 40 54), 04 56 43 (S 04 57 03), 05 10 15 (S 05 10 35), 05 24 44, 10 19 24 (S 10 19 43).
- /AUGUST 03 01 24 01, 02 12 02, 04 19 16 (S 04 19 26), 10 29 40, 20 16 03, 21 10 06 (S 21 10 32).
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- /AUGUST 06 02 32 46, 08 55 11, 09 33 59, 10 28 48, 13 22 37, 13 48 28, 17 22 26 (S 17 22 40), 17 23 03 (S 17 23 18).
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- /AUGUST 08 02 29 08, 03 08 49, 03 22 06, 03 42 44, 09 52 48, 11 05 14, 12 01 20, 14 05 14, 21 25 53, 21 31 35, 23 36 53, 23 54 25 (S 23 54 56).
- AUGUST 09 03 54 33 (S 03 54 59), 04 44 11, 06 53 08, 09 09 38, 10 39 45, 15 44 30, 18 42 13 (S 18 42 24), 20 39 17 (S 20 39 39).
- AUGUST 10 03 56 38 (S 03 57 07), 07 57 06, 09 16 32, 11 55 22, 18 08 04(S 18 08 15), 18 42 34.
- AUGUST 11 03 21 49, 05 04 50, 06 33 20, 08 14 31(S 08 14 45), 08 54 43, 10 08 36, 15 42 29, 17 00 28, 20 25 00, 21 14 43.
- /AUGUST 12 00 23 34(S 00 23 50), 00 41 04(S 00 41 28), 01 10 10, 02 37 48(S 02 38 20), 06 45 38, 10 29 49, 11 19 10(S 11 19 49), 11 23 43, 13 16 49, 16 58 56(S 16 59 10), 17 50 31, 18 34 35, 19 06 53, 20 34 30, 22 57 20.
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- /AUGUST 15 00 50 34, 02 35 59, 02 52 28, 04 23 23, 05 09 38, 05 13 40, 06 30 50, 10 06 30, 11 48 33, 14 37 01(S 14 37 56), 17 26 49, 18 17 05.
- /AUGUST 16 01 00 38, 02 22 57, 02 57 54, 03 18 33, 03 49 41, 05 02 48, 05 19 48, 06 03 14, 16 19 54, 23 23 52.
- AUGUST 17 00 25 06, 00 58 46, 11 38 27, 11 41 04, 14 37 09, 15 22 43(S 15 22 57), 15 36 11, 17 05 10, 23 45 50.
- AUGUST 18 00 50 15, 01 26 24, 02 09 42(S 02 09 57), 02 21 09, 04 55 15, 06 24 55, 08 22 22(S 08 22 31), 08 24 18(S 08 24 12), 08 28 36, 22 13 03, 23 09 03.

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October 04, 1963

Seismological Department

INSTITUTO GEOFISICO DEL PERU

MINISTERIO DE FOMENTO

HUANCAYO PRELIMINARY BULLETIN N° 09-63

APARTADO N° 46, HUANCAYO-PERU

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- SEPTEMBER 01 05 34 20, 05 44 07(S 05 44 20), 07 16 10(S 07 16 39), 09 29 06(S 09 29 26), 09 31 10(S 09 31 28), 10 56 49, 11 15 27, 19 17 04, 23 02 28, 23 10 01(S 23 10 24).
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- SEPTEMBER 04 03 20 20, 05 19 43, 08 04 27, 11 26 00(S 11 26 25), 13 44 40, 20 32 57, (S 20 33 11).
- SEPTEMBER 05 00 05 36(S 00 05 52), 05 29 34, 05 57 06, 06 26 54(S 06 27 12), 06 45 28 (S 06 45 52), 06 55 31, 10 24 17, 11 49 20(S 11 49 36), 16 35 05.
- SEPTEMBER 06 04 48 26, 04 55 30, 06 23 33, 11 39 09, 14 01 28, 21 56 22(S 21 56 41).
- SEPTEMBER 07 01 35 55(S 01 36 19), 01 36 37, 02 14 11(S 02 14 34), 03 37 12(S 03 37 43), 03 46 52(S 03 48 23), 07 32 47, 09 01 01, 09 20 14, 09 38 36(S 09 39 00), 14 21 11(S 14 21 22), 18 35 32(S 18 35 42), 18 53 31, 18 55 50 (S 18 56 38), 19 46 23, 22 41 14(S 22 41 27).
- SEPTEMBER 08 06 27 15(S 06 27 38), 08 18 52(S 08 19 08), 08 40 17(S 08 40 20), 09 12 52(S 09 14 07), 11 41 36(S 11 41 06), 18 31 42(S 18 32 16), 19 49 29(S 19 49 44), 22 59 38(S 23 00 05), 23 39 44.
- SEPTEMBER 09 00 22 07(S 00 22 37), 01 05 31(S 01 06 01), 03 04 56, 03 07 07(S 03 08 17), 14 50 45(S 14 51 02), 15 51 45(S 15 51 52), 19 15 13(S 19 15 27), 20 15 21(S 20 15 25), 21 17 16(S 21 17 38), 22 29 17(S 22 29 45).
- SEPTEMBER 10 07 36 59(S 07 37 51), 09 09 36(S 09 09 48).
- SEPTEMBER 11 15 04 02(S 15 04 11), 19 44 27(S 19 44 32), 23 41 43(S 23 42 26).
- SEPTEMBER 12 02 31 50, 03 30 31, 03 45 59, 11 14 23(S 11 14 50), 11 47 52(S 11 48 35) 12 14 57(S 12 15 20), 14 12 57(S 14 13 40).
- SEPTEMBER 13 04 43 56, 04 51 39(S 04 52 10), 08 44 38(S 08 45 11), 17 10 24, 19 18 32.
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- SEPTEMBER 17 02 23 53(S 02 24 33), 05 55 25(S 05 55 46), 07 37 06(S 07 39 04), 09 24 56(S 09 25 06), 13 18 14(S 13 18 29), 13 34 59(S 13 35 38), 15 00 31, 19 32 10(S 19 40 02), 20 11 11(S 20 11 26).

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- SEPTEMBER 18 10 32 39(S 10 33 01), 13 12 58(S 13 13 20), 17 32 54(S 17 33 03), 19 26 35(S 19 27 00), 19 55 10(S 19 55 51).
- SEPTEMBER 19 00 09 04(S 00 10 55), 04 09 05(S 04 09 48), 09 30 27, 10 30 47.
- SEPTEMBER 20 04 01 17(S 04 01 45), 13 59 41, 14 44 13, 22 13 28.
- SEPTEMBER 22 04 54 38(S 04 55 37), 06 51 27, 09 43 36(S 09 43 53), 18 29 51, 18 56 15 (S 18 56 27).
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- SEPTEMBER 26 04 34 03(S 04 34 20), 10 26 08(S 10 26 50), 19 12 51(S 19 13 22), 21 49 07, 23 22 07.
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- SEPTEMBER 28 03 40 40, 10 19 36(S 10 19 52), 14 50 18(S 14 50 42), 21 44 00(S 21 44 23).
- SEPTEMBER 29 01 25 44, 05 13 04, 07 05 48, 19 46 50.
- SEPTEMBER 30 03 43 08, 03 50 56(S 03 51 25), 06 55 27(S 06 55 48), 09 06 16, 09 14 05 (S 09 14 19), 09 28 16(S 09 28 31).

July, 17 1964

Seismological Department

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MINISTERIO DE FOMENTO

HUANCAYO PRELIMINARY BULLETIN N° 10-63

APARTADO N° 46, HUANCAYO-PERU

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Unless otherwise noted, readings refer to 1st. motion at Huancayo

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- OCTOBER 01 01 25 52, 01 30 30, 02 45 42(S 02 45 59), 08 31 46, 10 35 44, 14 00 37.
- OCTOBER 02 02 06 27, 03 29 09, 15 54 13.
- OCTOBER 03 05 33 24, 05 40 10, 07 37 05, 14 37 43, 23 44 18.
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- OCTOBER 11 01 52 30(S 01 53 04), 03 07 26, 04 33 56, 09 25 41, 10 25 08, 20 37 17.
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- OCTOBER 17 01 25 53, 02 15 08, 03 25 22, 05 06 41(S 05 06 53), 09 58 18(S 09 58 32),
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- OCTOBER 19 02 16 10, 02 46 19, 05 01 55, 06 52 55, 10 43 33(S 10 43 55), 14 56 35,
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November 8, 1963

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INSTITUTO GEOFISICO DEL PERU

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NOVEMBER - 1963

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NOVEMBER 10 00 48 49(S 00 49 01), 01 02 11(S 01 03 18), 01 38 14, 01 53 20, 01 57 07(S 01 57 22), 06 49 16(S 06 49 19), 10 29 18(S 10 29 47), 13 04 40(S 13 05 00), 15 25 24, 16 20 41, 17 36 53, 18 22 32, 19 00 14(S 19 00 27), 19 39 31.

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NOVEMBER 12 04 34 39(S 04 35 07), 07 02 15, 09 56 20, 12 28 14, 16 54 36, 20 34 13(S 20 34 23), 21 09 57(S 21 10 23).

NOVEMBER 13 04 19 30, 09 05 24, 12 59 02, 18 49 12, 21 43 46.

NOVEMBER 14 01 06 36, 06 23 04, 07 37 08, 08 12 58, 09 12 00, 12 25 14(S 12 25 35).

NOVEMBER 15 00 20 40, 00 53 55(S 00 54 10), 06 19 23, 08 03 22, 08 33 53, 08 41 27, 18 25 11(S 18 25 27), 21 25 42, 23 02 06(S 23 02 20).

NOVEMBER 16 01 32 17(S 01 32 32), 05 13 40(S 05 14 00), 06 48 02, 06 52 35, 07 17 26, (S 07 17 53), 07 48 25, 12 15 50(S 12 16 07), 16 02 04(S 16 02 16), 18 09

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NOVEMBER 17 00 52 26, 00 55 57, 02 24 44, 04 19 43, 05 01 23, 08 26 02, 12 14 17, 13 04 16, 15 26 18(S 15 26 30).

NOVEMBER 18 04 48 13, 05 20 47(S 05 21 17), 07 18 59(S 07 19 52), 07 52 43(S 07 52 56), 10 51 20, 10 56 32, 11 13 06, 12 10 59(S 12 11 19), 12 46 29, 14 48 04, 18 59 18, 20 32 18.

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NOVEMBER 20 01 02 41(S 01 02 43), 04 29 30, 06 05 28, 06 51 22, 07 11 30(S 07 11 45), 13 46 04, 14 37 33, 16 50 28, 19 49 16, 22 22 50.

NOVEMBER 21 03 12 15(S 03 12 42), 06 36 17(S 06 36 26), 10 33 31(S 10 33 45), 11 34 42, 20 26 34.

NOVEMBER 22 05 03 33(S 05 04 03), 12 42 16, 15 05 02, 16 43 18, 18 59 43.

NOVEMBER 23 00 05 42(S 00 06 04), 01 42 37(S 01 43 17), 03 40 05, 04 33 45(S 04 34 12), 08 00 26, 08 17 36, 08 42 11, 18 09 52, 23 03 29(S 23 03 48).

NOVEMBER 24 01 56 20(S 01 56 32), 05 40 03, 11 25 00, 16 54 36, 20 51 10(S 20 51 38).

NOVEMBER 25 04 47 41(S 04 48 11), 06 54 19, 10 36 12, 15 24 25(S 15 24 37), 21 19 26(S 21 19 59).

NOVEMBER 26 01 41 49(S 01 42 14), 07 11 44, 09 05 11, 09 11 16, 15 11 17.

NOVEMBER 27 00 44 13, 01 30 23, 02 21 05(S 02 22 29), 05 02 40(S 05 02 46), 07 44 21, 08 09 14, 09 00 25(S 09 00 47), 10 11 31, 10 37 19(S 10 37 45).

NOVEMBER 28 04 16 32(S 04 16 38), 05 56 42, 22 34 59, 23 36 34(S 23 37 02).

NOVEMBER 29 01 59 38(S 02 00 26), 11 22 02, 14 04 44, 19 28 03.

NOVEMBER 30 00 46 15(S 00 46 29), 04 17 56(S 04 18 18), 08 53 56, 22 24 24(S 22 24 53).

INSTITUTO GEOFISICO DEL PERU
 MINISTERIO DE FOMENTO

HUANCAYO PRELIMINARY BULLETIN N° 12-63

APARTADO N° 46, HUANCAYO-PERU

DECEMBER - 1963

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DECEMBER 01 01 41 45, 13 42 51, 16 34 54, 17 22 51, 18 49 26 (S 18 49 41), 22 46 16
 (S 22 46 30).

DECEMBER 02 01 10 23(S 01 10 29), 03 15 19, 05 37 27, 09 08 21, 15 41 45.

DECEMBER 03 10 49 02, 11 37 48(S 11 38 14), 13 01 48, 17 15 48, 23 06 34.

DECEMBER 04 03 15 11, 04 23 06, 08 46 17, 16 06 30, 20 37 39(S 20 38 09), 21 02 28.

DECEMBER 05 01 29 01(S 01 29 13), 03 18 27(S 03 18 38), 03 56 07, 04 30 10, 11 34 14,
 11 51 43, 18 06 32, 19 16 03(S 19 16 30), 20 22 37, 21 53 16.

DECEMBER 06 02 15 53, 02 20 34, 03 18 36, 04 00 47, 04 16 17, 07 45 27(S 07 45 38),
 08 50 40, 18 16 20(S 18 18 21), 19 00 45.

DECEMBER 07 04 04 10(S 04 04 25), 09 52 45, 11 29 06, 17 00 57(S 17 01 21).

DECEMBER 08 04 48 31, 07 16 38, 08 47 32(S 08 47 53), 12 23 02(S 12 23 17), 18 11 12.

DECEMBER 09 03 47 44(S 03 48 02), 04 31 27, 05 58 42, 23 29 05.

DECEMBER 10 02 36 28, 03 50 30, 06 40 46, 07 28 00(S 07 29 09), 10 27 12, 14 51 52,
 14 57 55(S 14 58 27), 22 43 47.

DECEMBER 11 00 14 21, 03 02 03, 04 14 15, 04 54 56, 13 07 52, 17 08 19.

DECEMBER 12 00 43 04(S 00 43 22), 07 23 13, 07 30 46, 10 56 42, 14 12 12, 20 58 55.

DECEMBER 13 00 48 43, 01 24 03, 04 18 33, 10 28 20, 22 59 37.

DECEMBER 14 00 09 38, 01 10 17(S 01 10 40), 03 52 28(S 03 52 55), 05 22 26, 08 48
 07, 10 31 01.

DECEMBER 15 02 56 44(S 02 57 04), 05 02 06(S 05 02 12), 06 56 19(S 06 56 39), 10 08
 21, 14 32 27, 17 52 33, 19 53 40, 23 12 35, 23 53 37(S 23 53 44).

DECEMBER 16 02 11 32, 04 28 31, 05 27 52, 16 43 40, 20 53 50(S 20 53 57).

DECEMBER 17 00 47 06, 02 46 44(S 02 46 54), 06 32 26(S 06 33 04), 09 17 14(S 09 17
 19), 13 14 09, 21 58 06.

DECEMBER 18 00 43 25, 01 00 19, 01 08 22, 01 43 25(S 01 44 18), 02 48 27(S 02 48 42),
 03 50 02, 05 57 59, 06 59 43, 09 21 45(S 09 22 01), 10 40 16(S 10 40 25),
 12 49 45, 13 54 15.

DECEMBER 19 04 39 43, 14 56 24, 17 05 15(S 17 06 11), 18 54 19, 20 39 04, 20 42 41,
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DECEMBER 20 08 45 55(S 08 46 08), 08 54 19, 09 16 55, 10 50 11(S 10 52 04), 17 05
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DECEMBER 21 00 18 47, 03 07 37(S 03 07 42), 03 08 56(S 03 09 10), 06 13 42, 06 58
 21, 07 38 01, 08 54 14, 10 28 12, 11 53 01(S 11 53 53), 13 29 14, 18 27
 13, 22 41 14.

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 12 42 09, 20 50 58, 21 58 24, 23 18 06, 23 39 00.

DECEMBER 23 00 33 11(S 00 33 36), 05 08 08, 10 12 02, 22 39 41.

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DECEMBER 25 01 01 20, 05 57 52, 08 16 22(S 08 16 46).

DECEMBER 26 18 02 06(S 18 02 51).

DECEMBER 27 00 10 45(S 00 11 22), 01 45 23(S 01 45 56), 03 58 17(S 03 58 43), 04 36
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DECEMBER 28 06 04 24, 09 17 06, 10 18 03(S 10 18 23), 12 07 33, 14 02 13, 18 06 01
 (S 18 06 01), 18 07 36.

DECEMBER 29 03 45 45, 06 09 42, 07 04 03(S 07 04 18), 07 06 06(S 07 06 42), 10 10
 52(S 10 11 00), 11 47 23(S 11 48 09), 15 57 51(S 15 58 18), 17 17 40(S
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February 17, 1964

Seismological Department

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MINISTERIO DE FOMENTO

NAÑA PRELIMINARY BULLETIN N° 08-63

APARTADO N° 3747, LIMA - PERU

AUGUST - 1963

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AUGUST 01 05 16 29 (S 05 17 46), 06 32 45 (S 06 33 16), 16 47 11 (S 16 47 18),
 18 31 44 (S 18 32 42).

AUGUST 02 03 40 43 (S 03 41 03), 04 56 58 (S 04 57 28), 05 10 28 (S 05 24 39),
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 07 22 33 (S 07 22 50), 07 30 48 (S 07 30 56), 10 29 49 (S 10 36 16),
 22 33 34 (S 22 33 43).

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 20 37 21.

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 10 28 25 (S 10 29 07), 13 22 21 (S 13 22 43), 17 12 45, 18 31 44,
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 20 40 51 (S 20 41 40).

AUGUST 08 02 29 15 (S 02 30 09), 03 42 18 (S 03 42 30), 16 44 44, 18 08 29,
 21 25 36 (S 21 25 59), 21 31 07 (S 21 31 25), 23 36 37, 23 54 08,
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AUGUST 10 07 57 04, 09 16 07 (S 09 16 24), 10 20 52, 11 55 21 (S 11 55 44),
 18 17 35, 18 42 38.

AUGUST 11 06 33 12, 08 54 41 (S 08 55 12), 10 08 35, 15 42 06 (S 15 42 24),
 17 00 37, 17 47 15, 20 25 14.

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AUGUST 17 00 25 18, 11 32 25, 11 40 54, 17 05 15 (S 17 06 14), 23 45 30.
 AUGUST 18 01 26 30 (S 01 27 02), 02 20 46, 10 27 42 (S 10 28 13), 23 09 22,
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 AUGUST 19 02 37 05 (S 02 37 57), 05 30 54 (S 05 31 46), 07 03 04 (S 07 03 03),
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 AUGUST 28 13 07 47 (S 13 08 26).
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 AUGUST 31 04 50 22, 10 31 37 (S 10 32 46), 10 45 58, 12 43 41 (S 12 44 48), 19
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 MINISTERIO DE FOMENTO
 ÑAÑA PRELIMINARY BULLETIN N° 09-63
 APARTADO N° 3747, LIMA - PERU
 SEPTEMBER - 1963

Unless otherwise noted, readings refer to 1st. motion at Ñaña

1963

SEPTEMBER 01 09 29 19 (S 09 29 52), 09 31 12 (S 09 31 56), 11 15 19, 11 31 54,
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SEPTEMBER 02 01 54 10, 04 10 51 (S 04 11 22), 11 06 23.

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SEPTEMBER 05 04 40 03 (S 04 40 16), 05 29 46, 06 27 15.

SEPTEMBER 06 03 23 31, 04 48 22, 06 23 29, 13 43 19, 14 01 16, 16 47 15.

SEPTEMBER 07 02 13 49 (S 02 13 56), 09 38 56, 18 53 41.

SEPTEMBER 08 06 27 07 (S 06 27 25), 09 13 54, 11 41 43, 18 31 45, 21 15 54, 22
 59 53 (S 23 00 33).

SEPTEMBER 09 00 22 17, 01 05 45, 03 04 52, 10 57 21, 14 50 47 (S 14 51 04), 21
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SEPTEMBER 12 02 31 57, 14 12 31 (S 14 12 48).

SEPTEMBER 13 04 51 43, 19 18 45.

SEPTEMBER 14 11 51 04, 20 36 47.

SEPTEMBER 15 05 12 28, 10 27 38 (S 10 27 52), 21 25 08 (S 21 25 48).

SEPTEMBER 16 01 54 55.

SEPTEMBER 17 02 24 07 (S 02 25 09), 05 55 05 (S 05 55 21), 07 37 03 (S 07 38
 48), 10 55 49 (S 10 55 60), 13 18 35 (S 13 19 07), 15 00 25 (S 15
 00 38), 16 08 41 (S 16 08 58), 19 35 00, 20 11 23 (S 20 11 47).

SEPTEMBER 18 04 13 54, 10 32 36, 12 53 03 (S 12 53 21), 13 12 52, 19 26 45 (S
 19 27 18), 19 54 49 (S 19 55 15).

SEPTEMBER 19 00 08 59 (S 00 10 46), 04 09 15 (S 04 10 04), 05 25 42, 09 30 36
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 28, 13 59 39 (S 13 59 54), 14 44 18 (S 14 46 36), 17 22 25 (S
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SEPTEMBER 21 06 39 20.

SEPTEMBER 22 04 57 32, 09 43 17 (S 09 43 54), 18 56 21 (S 18 56 38.

SEPTEMBER 23 06 33 41 (S 06 33 59), 07 18 10, 14 08 52, 16 09 37, 19 22 12
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SEPTEMBER 26 03 51 30, 03 55 23 (S 03 55 48), 04 35 15, 10 27 14, 12 42 50
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SEPTEMBER 28 03 42 46, 10 19 09, 14 50 34, 21 43 40 (S 21 43 47).

SEPTEMBER 29 01 25 19 (S 01 25 42).

SEPTEMBER 30 03 51 15, 07 03 36, 14 14 56, 17 27 28.

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MINISTERIO DE FOMENTO

ÑAÑA PRELIMINARY BULLETIN N° 10-63

APARTADO N° 3747, LIMA - PERU

OCTOBER - 1963

 Unless otherwise noted, readings refer to 1st. motion at Ñaña

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OCTOBER 02 01 18 01, 02 02 42, 02 06 42, 03 29 15, 06 45 11, 13 17 40, 14 25
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 12 35 42, 16 56 39, 22 58 18 (S 22 58 33).

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 20 37 23 (S 20 37 44).

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 15 07 42, 16 40 48 (S 16 41 04).

OCTOBER 15 03 06 08, 12 50 05, 15 00 57, 16 24 08, 21 22 26 (S 21 22 41, 22
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OCTOBER 26 11 57 41, 12 59 02 (S 13 00 46), 19 15 12.
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16 31 14 (S 16 31 22 , 19 45 50 (S 19 46 01).
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MINISTERIO DE FOMENTO

ÑAÑA PRELIMINARY BULLETIN N° 11-63

APARTADO 3747, LIMA - PERU

NOVEMBER - 1963

 Unless otherwise noted, readings refer to 1st. motion at Ñaña

1963

NOVEMBER 01 02 30 13, 04 51 47, 12 19 30 (S 12 20 35), 15 14 42, 15 50 14,
 23 00 27, 23 33 28 (S 23 33 44).

NOVEMBER 02 03 00 58, 03 36 42, 07 32 41 (S 07 33 01), 10 20 26 (S 10 21 04),
 16 07 44 (S 16 08 09), 19 25 18 (S 19 25 42).

NOVEMBER 03 03 12 13 (S 03 13 45), 04 00 07, 04 26 42, 06 56 10, 07 39 20, 12
 04 29 (S 12 06 02), 14 36 34, 15 38 33 (S 15 38 44), 16 30 56, 20
 37 26.

NOVEMBER 04 01 36 44, 03 30 18 (S 03 31 05), 05 42 38, 06 07 36, 06 38 21, 12
 07 32 (S 12 08 55), 13 55 19, 18 52 45 (S 18 53 27), 22 36 42, 22
 45 18.

NOVEMBER 05 00 24 35 (S 00 24 59), 19 40 29.

NOVEMBER 06 01 01 53 (S 01 02 34), 01 30 37 (S 01 32 09), 06 07 05, 09 20 50,
 15 57 22, 18 35 24 (S 18 36 50), 23 43 34 (S 23 44 10).

NOVEMBER 07 20 53 20, 21 34 05 (S 21 34 16).

NOVEMBER 08 19 24 54 (S 19 26 26), 23 43 02 (S 23 43 21).

NOVEMBER 09 07 44 31, 08 37 32, 21 17 11, 21 52 20 (S 21 53 40), 22 44 05 (S
 22 44 12), 23 15 50 (S 23 17 25).

NOVEMBER 10 01 02 20 (S 01 03 57), 01 38 23 (S 01 39 44), 05 00 28, 10 29 35,
 15 25 25, 17 36 51, 19 39 32.

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NOVEMBER 12 09 56 29, 12 28 24, 16 54 30, 17 05 47, 21 10 17.

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NOVEMBER 21 06 36 45, 11 34 49.
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MINISTERIO DE FOMENTO

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APARTADO 3747, LIMA - PERU

DECEMBER - 1963

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DECEMBER 01 01 41 47, 09 38 29, 11 13 39, 15 18 05, 16 09 09, 17 23 06, 18 49 51.

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