

INSTITUTO GEOGRAFICO NACIONAL
OBSERVATORIO GEOFISICO DE LOGROÑO
BOLETIN SISMICO PROVISIONAL

JULIO - 1983

(1ª decena)

Naturaleza del terreno: Mioceno Lacustre

Coordenadas geográficas:

L = 42° 27' 28" Norte

M = 02° 30' 11,7" Oeste

Z = 445,50 metros

CONSTANTES DE LOS SISMOGRAFOS

| Aparatos | Período Péndulo | Período Galvan. | Amplificación Máxima |
|---------------|--------------------|--------------------|-------------------------|
| Stuttgart - Z | 1,30 | 1,30 | 7.500 |
| Stuttgart - N | 1,30 | 1,30 | 6.900 |
| Stuttgart - E | 1,21 | 1,21 | 8.700 |

| Núm. de orden | Día | Fase | Componente | Hora TMG | T seg. | Amplitud micrones | Dil. o comp. | △ (Km) (Grad) | INFORMACION COMPLEMENTARIAS |
|---------------|-----|---------|------------|------------|--------|-------------------|--------------|---------------|-----------------------------|
| 314 | 1 | eP | ZH | 02 36 06,0 | | | | | |
| | | EP | NH | 02 36 06,0 | | | | | |
| | | eP | EH | 02 36 06,0 | | | | | |
| 315 | 1 | iP | ZH | 03 35 39,6 | | | C | | |
| | | eP | NH | 03 35 39,6 | | | | | |
| | | eP | EH | 03 35 39,6 | | | | | |
| 316 | 1 | ePKP | ZH | 22 16 59,0 | | | | | |
| | | ePKP | NH | 22 16 59,0 | | | | | |
| | | ePKP | EH | 22 16 59,0 | | | | | |
| 317 | 2 | iP | ZH | 09 47 04,5 | 1.2 | 0935 | C | | |
| | | 1 | | 47 23,0 | | | | | |
| | | eP | NH | 09 47 04,5 | | | | | |
| | | eP | EH | 09 47 04,5 | | | | | |
| 318 | 2 | eP | ZH | 16 20 54,0 | | | C | 1.950 | |
| | | eS | | 24 08,0 | | | | | |
| | | eP | NH | 16 20 54,0 | | | | | |
| | | eS | | 24 08,0 | | | | | |
| | | eP | EH | 16 20 54,0 | | | | | |
| | | eS | | 24 08,0 | | | | | |
| 319 | 2 | eP | ZH | 16 42 56,0 | | | | | |
| | | aP | NH | 16 42 56,0 | | | | | |
| | | eP | EH | 16 42 56,0 | | | | | |
| 320 | 3 | eP | ZH | 03 02 49,0 | | | | | |
| | | 1 | | 06 53,5 | | | | | |
| | | eP | NH | 03 02 49,0 | | | | | |
| 321 | 3 | eP | EH | 03 02 49,0 | | | | | |
| | | eP | ZH | 14 53 32,5 | | | | | |
| | | eP | NH | 14 53 32,5 | | | | | |
| 322 | 3 | eP | EH | 14 53 32,5 | | | | | |
| | | iP | ZH | 17 26 16,2 | | | D. | 8.851 | |
| | | iPP | | 29 19,0 | | | | | |
| eS | | 36 18,0 | | | | | | | |
| 322 | 3 | eP | NH | 17 26 16,2 | | | | | |
| | | eS | | 36 18,0 | | | | | |
| | | eP | EH | 17 26 16,2 | | | | | |
| 322 | 3 | eS | | 36 18,0 | | | | | |
| | | eP | | 17 26 16,2 | | | | | |
| | | eS | | 36 18,0 | | | | | |

| Núm. de orden | Día | Fase | Componente | Hora TMG | T seg. | Amplitud micrones | Dil. o comp. | △ (Km) (Grad) | INFORMACION COMPLEMENTARIAS |
|---------------|-----|---------------------|------------|----------------------------------|--------|-------------------|--------------|---------------|---|
| 323 | 5 | ePg eSg | ZH | 08 16 37,0 16 43,5 | | | | 56 | Duración: 40" |
| | | ePg eSg | NH | 08 16 37,0 16 43,5 | | | | | |
| | | ePg eSg | EH | 08 16 37,0 16 43,5 | | | | | |
| 324 | 5 | ePKP iPKP ePP | ZH | 11 31 42,0 32 22,0 35 50,0 | | | | 17.403 | |
| | | ePKP | NH | 11 31 42,0 | | | | | |
| | | ePKP | EH | 11 31 42,0 | | | | | |
| 325 | 5 | iP iPP iS | ZH | 12 06 29,6 06 59,5 10 37,7 | 1,4 | 1,2 | D. | 2.570 | |
| | | eP iPP iS | NH | 12 06 29,6 06 59,5 10 37,7 | | | | | |
| | | iP iPP iS | EH | 12 06 29,6 06 59,5 10 37,7 | | | | | |
| 326 | 6 | ePg iSg iSn | ZH | 10 38 43,0 38 58,0 39 00,0 | | | | 128 | Duración: 55" |
| | | ePg iSg iSn | NH | 10 38 43,0 38 58,0 39 00,0 | | | | | |
| | | ePg iSg iSn | EH | 10 38 43,0 38 58,0 39 00,0 | | | | | |
| 327 | 6 | ePg iSg eSn | ZH | 15 12 28,0 12 43,5 12 45,5 | | | | 129 | Duración: 60" |
| | | ePg iSg | NH | 15 12 28,0 12 43,5 | | | | | |
| | | ePg iSg | EH | 15 12 28,0 12 43,5 | | | | | |
| 328 | 6 | ePn iSn iSg | ZH | 17 19 13,5 19 35,2 19 36,8 | | | | 178 | Lg: T 0,8 A 0,17 MAG. 2,8 (LGR) Duración: 95" |
| | | ePn iSn iSg | NH | 17 19 13,5 19 35,2 19 36,8 | | | | | |
| | | ePn iSn iSg | EH | 17 19 13,5 19 35,2 19 36,8 | | | | | |

| Núm. de orden | Día | Fase | Componente | Hora TMG | T seg. | Amplitud micrones | Dil. o comp. | Δ (Km) (Grad) | INFORMACION COMPLEMENTARIAS |
|---------------|-----|------|------------|------------|--------|-------------------|--------------|----------------------|--|
| 329 | 7 | ePKP | ZH | 05 49 52,0 | | | | | |
| | | ePKP | NH | 05 49 52,0 | | | | | |
| | | ePKP | EH | 05 49 52,0 | | | | | |
| 330 | 7 | ePg | ZH | 07 36 06,0 | | | | 56 | Lg: T 0,9 Ao,34 MAG. 2,1 (LGR) Duración: 55" |
| | | iSg | | 36 11,5 | | | | | |
| | | iSn | | 36 19,5 | | | | | |
| | | ePg | NH | 07 36 06,0 | | | | | |
| | | iSg | | 36 11,5 | | | | | |
| | | iSn | | 36 19,5 | | | | | |
| | | ePg | EH | 07 36 06,0 | | | | | |
| | | iSg | | 36 11,5 | | | | | |
| | | iSn | | 36 19,5 | | | | | |
| 331 | 7 | ePKP | ZH | 16 25 38,0 | | | | | |
| | | ePKP | NH | 16 25 38,0 | | | | | |
| | | ePKP | EH | 16 25 38,0 | | | | | |
| 332 | 7 | iP | ZH | 20 45 24,5 | 1,3 | 0,65 | D. | 6.605 | |
| | | iPP | | 47 29,0 | | | | | |
| | | eS | | 53 33,0 | | | | | |
| | | iP | NH | 20 45 24,5 | | | | | |
| | | ePP | | 47 29,0 | | | | | |
| | | eS | | 53 33,0 | | | | | |
| | | eP | EH | 20 45 24,5 | | | | | |
| | | eS | | 53 33,0 | | | | | |
| 333 | 8 | eP | ZH | 02 15 58,0 | | | | | |
| | | eP | NH | 02 15 58,0 | | | | | |
| | | eP | EH | 02 15 58,0 | | | | | |
| 334 | 9 | iP | ZH | 07 53 21,0 | | | C. | | |
| | | eP | NH | 07 53 21,0 | | | | | |
| | | eP | EH | 07 53 21,0 | | | | | |
| 335 | 10 | eP | ZH | 04 12 14,0 | | | | | |
| | | eP | NH | 04 12 14,0 | | | | | |
| | | eP | EH | 04 12 14,0 | | | | | |

E. Maza Larraz

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BOLETIN SISMICO PROVISIONAL

J U L I O - 1 9 8 3

(2ª decena)

Naturaleza del terreno: Mioceno Lacustre

Coordenadas geográficas:

L = 42° 27' 28" Norte

M = 02° 30' 11,7" Oeste

Z = 445,50 metros

CONSTANTES DE LOS SISMOGRAFOS

| Aparatos | Período Péndulo | Período Galvan. | Amplificación Máxima |
|---------------|--------------------|--------------------|-------------------------|
| Stuttgart - Z | 1,30 | 1,30 | 7.500 |
| Stuttgart - N | 1,30 | 1,30 | 6.900 |
| Stuttgart - E | 1,21 | 1,21 | 8.700 |

| Núm. de orden | Día | Fase | Componente | Hora TMG | T seg. | Amplitud micrones | Dil. o comp. | Δ (Km) (Grad) | INFORMACION COMPLEMENTARIAS |
|---------------|-----|--------------------------|----------------|---|--------|-------------------|--------------|----------------------|---------------------------------|
| 336 | 11 | ePn eSn | ZH | 10 53 09,5 53 40,5 | | | | 270 | Duración: 90" |
| | | ePn eSn | NH | 10 53 09,5 53 40,5 | | | | | |
| | | ePn eSn | EH | 10 53 09,5 53 40,5 | | | | | |
| 337 | 11 | ePg eSg iSn | ZH | 11 45 04,5 45 11,7 45 18,3 | | | | 61 | Duración: 60" |
| | | ePg eSg eSn | NH | 11 45 04,5 45 11,7 45 18,3 | | | | | |
| | | ePg eSg | EH | 11 45 04,5 45 11,7 | | | | | |
| 338 | 11 | e(PP) e e | ZH NH EH | 13 15 14,0 13 15 14,0 13 15 14,0 | | | | | |
| 339 | 12 | iP iPP eS | ZH | 11 43 08,7 45 15,5 50 22,0 | 1,4 | 0,46 | C | 5.604 | |
| | | eP iPP eS | NH | 11 43 08,7 45 15,5 50 22,0 | | | | | |
| | | iP ePP eS | EH | 11 43 08,7 45 15,5 50 22,0 | | | | | |
| 340 | 12 | iP i(AP) ePP eS | ZH | 15 21 23,0 21 32,5 24 02,0 30 52,0 | | | D | 8.200 | |
| | | eP ePP eS | NH | 15 21 23,0 24 02,0 30 52,0 | | | | | |
| | | eP ePP eS | EH | 15 21 23,0 24 02,0 30 52,0 | | | | | |
| 341 | 12 | eP eP eP | ZH NH EH | 23 21 03,0 23 21 03,0 23 21 03,0 | | | | | |
| 342 | 15 | ePg iSg iSn | ZH | 12 13 46,9 13 53,4 14 00,3 | | | | 56 | Ig: To.8 Ao.20 Duración: 60" |

| Núm. de orden | Día | Fase | Componente | Hora TMG | T seg. | Amplitud micrones | Dil. o comp. | Δ (Km) (Grad) | INFORMACION COMPLEMENTARIAS |
|---------------|-----|-------------------|------------|----------------------------------|--------|-------------------|--------------|----------------------|-----------------------------------|
| | 15 | ePg iSg iSn | NH | 12 13 46,9 13 53,4 14 00,3 | | | | | |
| | | ePg iSg iSn | EH | 12 13 46,9 13 53,4 14 00,3 | | | | | |
| 343 | 15 | ePg iSg eSn | ZH | 13 13 30,0 13 36,5 13 43,5 | | | | 56 | Duración: 40" |
| | | ePg iSg eSn | NH | 13 13 30,0 13 36,5 13 43,5 | | | | | |
| | | ePg iSg eSn | EH | 13 13 30,0 13 36,5 13 43,5 | | | | | |
| 344 | 18 | eP iAP ePP | ZH | 13 04 34,0 04 57,0 07 30,0 | | | | 7.862 | |
| | | eP ePP | NH | 13 04 34,0 07 30,0 | | | | | |
| | | eP iAP ePP | EH | 13 04 34,0 04 57,0 07 30,0 | | | | | |
| 345 | 18 | ePg iSg iSn | ZH | 15 40 17,5 40 26,0 40 32,0 | | | | 73 | Ig: T1.1 Ao.30 Duración: 60" |
| | | ePg iSg iSn | NH | 15 40 17,5 40 26,0 40 32,0 | | | | | |
| | | ePg iSg iSn | EH | 15 40 17,5 40 26,0 40 32,0 | | | | | |
| 346 | 18 | ePn iSn iSg | ZH | 23 44 31,6 44 54,3 44 55,8 | | | | 189 | Duración: 105" |
| | | ePn iSn iSg | NH | 23 44 31,6 44 54,3 44 55,8 | | | | | |
| | | ePn iSn iSg | EH | 23 44 31,6 44 54,3 44 55,8 | | | | | |
| 347 | 20 | iPg iSg iSn | ZH | 13 51 54,3 52 00,8 52 06,5 | | | C | 56 | Ig: T01.0 Ao.35 MAG. 2,1 (IGR) |
| | | iPg iSg iSn | NH | 13 51 54,3 52 00,8 52 06,5 | | | | | |

| Núm. de orden | Día | Fase | Componente | Hora TMG | T seg. | Amplitud micrones | Dil. o comp. | △ (Km) (Grad) | INFORMACION COMPLEMENTARIAS |
|---------------|-----|---|--|--|--------|-------------------|--------------|---------------|--|
| | 20 | ePg iSg iSn | EH | 13 51 54,3 52 00,8 52 06,5 | | | | | |
| 348 | 20 | ePn ePg iSn iSB iSg ePn iSn iSg ePn iSn iSg | ZH NH EH | 19 09 10,0 09 24,0 09 52,5 10 03,0 10 11,5 19 09 10,0 09 52,5 10 11,5 19 09 10,0 09 52,5 10 11,5 | | | | 407 | Lg T 1.2 Ao.4 MAG. 3,85 (LGR) Duración: 220" |
| | | | | | | | | | E. Maza Larraz |

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BOLETIN SISMICO PROVISIONAL

J U L I O - 1 9 8 3
(3ª decena)

Naturaleza del terreno: Mioceno Lacustre

Coordenadas geográficas:

L = 42° 27' 28" Norte

M = 02° 30' 11,7" Oeste

Z = 445,50 metros

CONSTANTES DE LOS SISMOGRAFOS

| Aparatos | Período Péndulo | Período Galvan. | Amplificación Máxima |
|---------------|--------------------|--------------------|-------------------------|
| Stuttgart - Z | 1,30 | 1,30 | 7.500 |
| Stuttgart - N | 1,30 | 1,30 | 6.900 |
| Stuttgart - E | 1,21 | 1,21 | 8.700 |

| Núm. de orden | Día | Fase | Componente | Hora TMG | T seg. | Amplitud micrones | Dil. o comp. | Δ (Km) (Grad) | INFORMACION COMPLEMENTARIAS |
|---------------|-----|---------|------------|------------|--------|-------------------|--------------|----------------------|---|
| 349 | 21 | eP | ZH | 07 24 15,0 | | | | | |
| | | eP | NH | 07 24 15,0 | | | | | |
| | | eP | EH | 07 24 15,0 | | | | | |
| 350 | 22 | iP | ZH | 02 48 30,2 | | | C. | | |
| | | eP | NH | 02 48 30,2 | | | | | |
| | | eP | EH | 02 48 30,2 | | | | | |
| 351 | 22 | iP | ZH | 02 52 24,7 | 1,1 | 0,7 | C. | | |
| | | i | | 56 17,2 | | | | | |
| | | eP | NH | 02 52 24,7 | | | | | |
| | | i | | 56 17,2 | | | | | |
| | | iP | EH | 02 52 24,7 | | | | | |
| | | i | | 56 17,2 | | | | | |
| 352 | 22 | ePn | ZH | 13 49 15,0 | | | | 139 | Duración: 87" |
| | | iSn | | 49 32,5 | | | | | |
| | | ePn | NH | 13 49 15,0 | | | | | |
| | | iSn | | 49 32,5 | | | | | |
| | | ePn | EH | 13 49 15,0 | | | | | |
| | | iSn | | 49 32,5 | | | | | |
| 353 | 24 | ePKP | ZH | 01 12 23,5 | | | | | |
| | | ePKP | NH | 01 12 23,5 | | | | | |
| | | ePKP | EH | 01 12 23,5 | | | | | |
| 354 | 24 | ePn | ZH | 17 16 01,0 | | | C? | 734 | Lg: T1.3 A 0.75 MAG: 4,6 (LGR) Duración: 330" |
| | | ePg | | 16 32,0 | | | | | |
| | | iSn | | 17 18,0 | | | | | |
| | | iSB | | 17 40,0 | | | | | |
| | | iSg | | 17 57,0 | | | | | |
| | | ePn | NH | 17 16 01,0 | | | | | |
| | | ePg | | 16 32,0 | | | | | |
| | | iSn | | 17 18,0 | | | | | |
| | | iSB | | 17 40,0 | | | | | |
| | | iSg | | 17 57,0 | | | | | |
| | | ePn | EH | 17 16 01,0 | | | | | |
| | | ePg | | 16 32,0 | | | | | |
| iSn | | 17 18,0 | | | | | | | |
| iSB | | 17 40,0 | | | | | | | |
| iSg | | 17 57,0 | | | | | | | |

| Núm. de orden | Día | Fase | Componente | Hora TMG | T seg. | Amplitud micrones | Dil. o comp. | △ (Km) (Grad) | INFORMACION COMPLEMENTARIAS |
|---------------|-----|---|--|--|--------|-------------------|--------------|---------------|---|
| 355 | 24 | iP iAP iS iP eAP iS iP iS | ZH NH EH | 23 19 37,5 20 33,0 29 40,5 23 19 37,5 20 33,0 29 40,5 23 19 37,5 29 40,5 | 1,5 | 5,53 | D. | 9.340 | |
| 356 | 25 | ePn ePg iSg ePn ePg eSn iSg ePn ePg eSn iSg | ZH NH EH | 12 43 05,5 43 27,0 44 33,0 12 43 05,5 43 27,0 44 06,5 44 33,0 12 43 05,5 43 27,0 44 06,5 44 33,0 | | | | 550 | Duración: 165" <i>27 de Alm.</i> |
| 357 | 25 | eP eP | ZH NH EH | 22 44 11,5 22 44 11,5 22 44 11,5 | | | C | | |
| 358 | 26 | eP eP | ZH NH EH | 02 35 05,0 02 35 05,0 02 35 05,0 | | | | | |
| 359 | 26 | ePn iSn iSg ePn eSn iSg ePn eSn iSg | ZH NH EH | 20 08 24,0 08 56,5 09 05,0 20 08 24,0 08 56,5 09 05,0 20 08 24,0 08 56,5 09 05,0 | | | | 290 | Lg: To.8 A 0.15 MAG: 3.5 (IGR) Duración: 140" |
| 360 | 27 | ePg iSg eSn ePg iSg iSn ePg iSg eSn | ZH NH EH | 09 44 19,0 44 25,5 44 32,5 09 44 19,0 44 25,5 44 32,5 09 44 19,0 44 25,5 44 32,5 | | | | 56 | Duración: 55" |

| Núm. de orden | Día | Fase | Componente | Hora TMG | T seg. | Amplitud micrones | Dil. o comp. | △ (Km) (Grad) | INFORMACION COMPLEMENTARIAS |
|---------------|-----|---|--------------------------------|--|--------|-------------------|--------------|---------------|---|
| 361 | 27 | iPg iSg iSn ePg iSg iSn ePg iSg iSn | ZH NH EH | 11 09 41,3 09 47,6 09 54,7 11 09 41,3 09 47,6 09 54,7 11 09 41,3 09 47,6 09 54,7 | | | D. | 55 | Ig: T 0.7 A 0.17 MAG: 2.0 (LGR) Duración: 55" |
| 362 | 28 | iPKP ePKP ePKP | ZH NH EH | 02 00 37,4 02 00 37,4 02 00 37,4 | | | C. | | |
| 363 | 28 | iP eP eP | ZH NH EH | 15 19 41,0 15 19 41,0 15 19 41,0 | | | D. | | |
| 364 | 29 | ePg eSg ePg eSg ePg eSg | ZH NH EH | 10 23 02,0 23 10,5 10 23 02,0 23 10,5 10 23 02,0 23 10,5 | | | 73 | Duración: 55" | |
| 365 | 29 | iP iPP eP ePP eP | ZH NH EH | 18 14 13,5 16 35,0 18 14 13,5 16 35,0 18 14 13,5 | | | C. | 7.040 | |
| 366 | 31 | ePKP ePKP ePKP | ZH NH EH | 10 45 14,0 10 45 14,0 10 45 14,0 | | | | | |

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