

Antelope - associated stations measurements on atlas2 ronet database

EAST OF KURIL ISLANDS - evid 41779

| Date       | Time         | Lat    | Lon     | Depth | ml | mb   | orid  |
|------------|--------------|--------|---------|-------|----|------|-------|
| 2019/12/05 | 02:03:11.677 | 44.294 | 150.627 | 15.0  |    | 5.94 | 42038 |
| Sta        | Chan         | PGV    | PGA     |       |    |      |       |
| * 1        | TESR HHZ     | 0.000  |         |       |    |      |       |
|            | TESR HHN     | -0.000 |         |       |    |      |       |
|            | TESR HNZ     |        | 0.002   |       |    |      |       |
| * 2        | BOSR HHE     | 0.000  |         |       |    |      |       |
|            | BOSR HHZ     | 0.000  |         |       |    |      |       |
|            | BOSR HHN     | -0.000 |         |       |    |      |       |
| * 3        | CFR HHE      | 0.000  |         |       |    |      |       |
|            | CFR HHZ      | -0.000 |         |       |    |      |       |
|            | CFR HHN      | 0.000  |         |       |    |      |       |
|            | CFR HNZ      |        | 0.002   |       |    |      |       |
|            | CFR HNE      |        | 0.003   |       |    |      |       |
|            | CFR HNN      |        | 0.003   |       |    |      |       |
| * 4        | VARL EHE     | -0.000 |         |       |    |      |       |
|            | VARL EHN     | 0.000  |         |       |    |      |       |
|            | VARL EHZ     | 0.000  |         |       |    |      |       |
|            | VARL HNZ     |        | -0.008  |       |    |      |       |
|            | VARL HNE     |        | 0.007   |       |    |      |       |
|            | VARL HNN     |        | 0.008   |       |    |      |       |
| * 5        | NEGRR HHE    | -0.000 |         |       |    |      |       |
|            | NEGRR HHZ    | -0.000 |         |       |    |      |       |
|            | NEGRR HHN    | 0.000  |         |       |    |      |       |
|            | NEGRR HNZ    |        | -0.001  |       |    |      |       |
|            | NEGRR HNE    |        | -0.001  |       |    |      |       |
|            | NEGRR HNN    |        | -0.001  |       |    |      |       |
| * 6        | JURR HNZ     |        | 0.017   |       |    |      |       |
|            | JURR HNE     |        | 0.010   |       |    |      |       |
|            | JURR HNN     |        | 0.014   |       |    |      |       |
| * 7        | PANC HHE     | 0.000  |         |       |    |      |       |
|            | PANC HHZ     | -0.000 |         |       |    |      |       |
|            | PANC HHN     | 0.001  |         |       |    |      |       |
|            | PANC HNZ     |        | 0.005   |       |    |      |       |
|            | PANC HNE     |        | 0.011   |       |    |      |       |
|            | PANC HNN     |        | 0.006   |       |    |      |       |
| * 8        | TLBR HHE     | -0.000 |         |       |    |      |       |
|            | TLBR HHZ     | -0.000 |         |       |    |      |       |
|            | TLBR HHN     | -0.000 |         |       |    |      |       |
|            | TLBR HNZ     |        | 0.001   |       |    |      |       |
|            | TLBR HNE     |        | -0.001  |       |    |      |       |
|            | TLBR HNN     |        | 0.001   |       |    |      |       |
| * 9        | SCTR HHE     | 0.000  |         |       |    |      |       |
|            | SCTR HHZ     | -0.000 |         |       |    |      |       |
|            | SCTR HHN     | 0.000  |         |       |    |      |       |
|            | SCTR HNZ     |        | 0.003   |       |    |      |       |
|            | SCTR HNE     |        | 0.006   |       |    |      |       |
|            | SCTR HNN     |        | 0.005   |       |    |      |       |
| * 10       | DOPR HHE     | 0.000  |         |       |    |      |       |
|            | DOPR HHZ     | -0.000 |         |       |    |      |       |
|            | DOPR HNE     |        | 0.007   |       |    |      |       |

|   |    |      |     |        |        |
|---|----|------|-----|--------|--------|
|   |    | DOPR | HNN |        | 0.004  |
| * | 11 | TURR | HHE | 0.000  |        |
|   |    | TURR | HHZ | -0.000 |        |
|   |    | TURR | HHN | 0.000  |        |
| * | 12 | BIR  | HHE | 0.001  |        |
|   |    | BIR  | HHZ | -0.000 |        |
|   |    | BIR  | HHN | -0.001 |        |
|   |    | BIR  | HNZ |        | 0.007  |
|   |    | BIR  | HNE |        | 0.009  |
|   |    | BIR  | HNN |        | 0.015  |
| * | 13 | GHRR | HHE | -0.001 |        |
|   |    | GHRR | HHZ | -0.000 |        |
|   |    | GHRR | HHN | -0.001 |        |
|   |    | GHRR | HNZ |        | 0.004  |
|   |    | GHRR | HNE |        | 0.008  |
|   |    | GHRR | HNN |        | 0.008  |
| * | 14 | MESR | HHE | -0.000 |        |
|   |    | MESR | HHZ | -0.000 |        |
|   |    | MESR | HHN | -0.000 |        |
|   |    | MESR | HNZ |        | -0.004 |
|   |    | MESR | HNE |        | 0.004  |
|   |    | MESR | HNN |        | 0.004  |
| * | 15 | TLCR | EHN | 0.000  |        |
|   |    | TLCR | EHZ | 0.000  |        |
|   |    | TLCR | HNE |        | -0.004 |
| * | 16 | TPGR | HHN | -0.000 |        |
|   |    | TPGR | HNN |        | 0.003  |
| * | 17 | COVR | HHE | 0.000  |        |
|   |    | COVR | HHZ | -0.000 |        |
|   |    | COVR | HHN | -0.000 |        |
|   |    | COVR | HNZ |        | 0.005  |
|   |    | COVR | HNE |        | 0.004  |
| * | 18 | OZUR | HHE | -0.000 |        |
|   |    | OZUR | HHZ | 0.000  |        |
|   |    | OZUR | HHN | -0.000 |        |
|   |    | OZUR | HNZ |        | 0.006  |
|   |    | OZUR | HNE |        | -0.010 |
|   |    | OZUR | HNN |        | 0.007  |
| * | 19 | MLR  | HHE | 0.000  |        |
|   |    | MLR  | HHZ | 0.000  |        |
|   |    | MLR  | HHN | 0.000  |        |
|   |    | MLR  | HNZ |        | 0.001  |
|   |    | MLR  | HNE |        | -0.001 |
|   |    | MLR  | HNN |        | -0.001 |
| * | 20 | VLDR | HHE | 0.000  |        |
|   |    | VLDR | HHZ | -0.000 |        |
|   |    | VLDR | HHN | 0.000  |        |
|   |    | VLDR | HNZ |        | 0.005  |
|   |    | VLDR | HNE |        | 0.005  |
|   |    | VLDR | HNN |        | 0.003  |
| * | 21 | GIRR | HHN | 0.000  |        |
|   |    | GIRR | HNZ |        | 0.016  |
|   |    | GIRR | HNE |        | 0.026  |
|   |    | GIRR | HNN |        | 0.000  |
| * | 22 | ICOR | HHZ | -0.000 |        |
|   |    | ICOR | HNZ |        | -0.097 |
| * | 23 | VRI  | HHE | 0.000  |        |
|   |    | VRI  | HHZ | 0.000  |        |
|   |    | VRI  | HHN | -0.000 |        |
|   |    | VRI  | HNZ |        | 0.003  |
|   |    | VRI  | HNE |        | 0.010  |
|   |    | VRI  | HNN |        | 0.005  |

\* Associated RO stations: 23  
Excluded stations:

Largest velocities (cm/sec) and accelerations (cm/sec\*\*2)

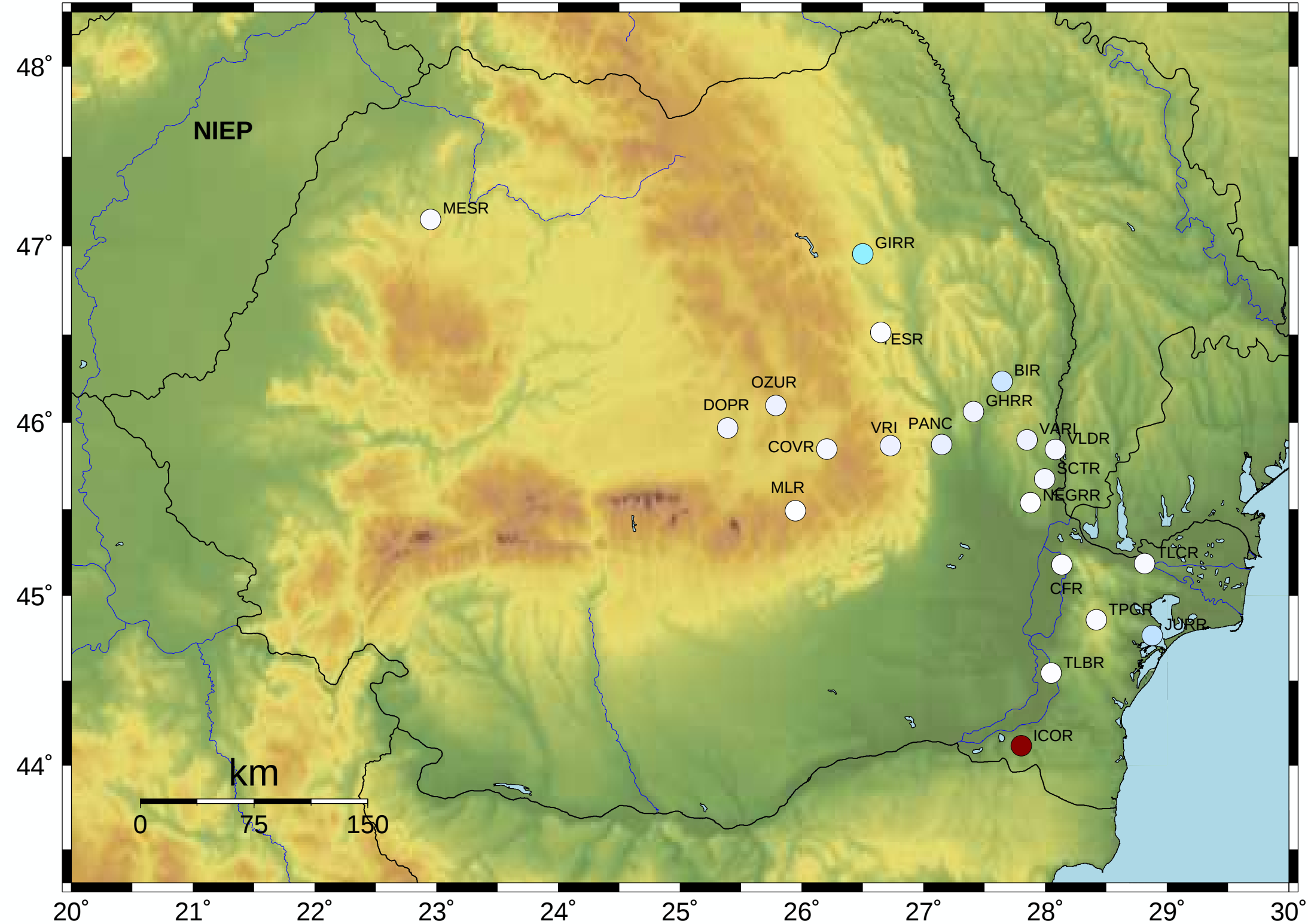
|                 |          |       |
|-----------------|----------|-------|
| Velocity        | BIR_HHE  | 0.001 |
| Acceleration    | ICOR_HNZ | 0.097 |
| Horizontal acc. | GIRR_HNE | 0.026 |

Stations max. horizontal acceleration and MSK intensity

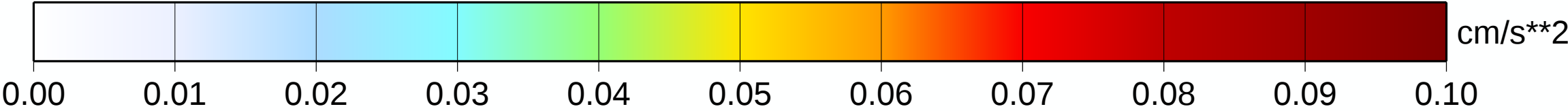
|    |           |       |   |
|----|-----------|-------|---|
| 1  | BIR_HNN   | 0.015 | I |
| 2  | CFR_HNE   | 0.003 | I |
| 3  | COVR_HNE  | 0.004 | I |
| 4  | DOPR_HNE  | 0.007 | I |
| 5  | GHRR_HNE  | 0.008 | I |
| 6  | GIRR_HNE  | 0.026 | I |
| 7  | JURR_HNN  | 0.014 | I |
| 8  | MESR_HNE  | 0.004 | I |
| 9  | MLR_HNE   | 0.001 | I |
| 10 | NEGRR_HNE | 0.001 | I |
| 11 | OZUR_HNE  | 0.010 | I |
| 12 | PANC_HNE  | 0.011 | I |
| 13 | SCTR_HNE  | 0.006 | I |
| 14 | TLBR_HNE  | 0.001 | I |
| 15 | TLCR_HNE  | 0.004 | I |
| 16 | TPGR_HNN  | 0.003 | I |
| 17 | VARL_HNN  | 0.008 | I |
| 18 | VLDR_HNE  | 0.005 | I |
| 19 | VRI_HNE   | 0.010 | I |

Observed stations accelerations – Antelope platform (cm/sec\*\*2)

Maximum observed acceleration: ICOR\_HNZ 0.097  
Thu Dec 5, 2019 02:03:11 GMT ML Mb 5.9 N44.29 E150.63 Depth: 15.0km ID:41779

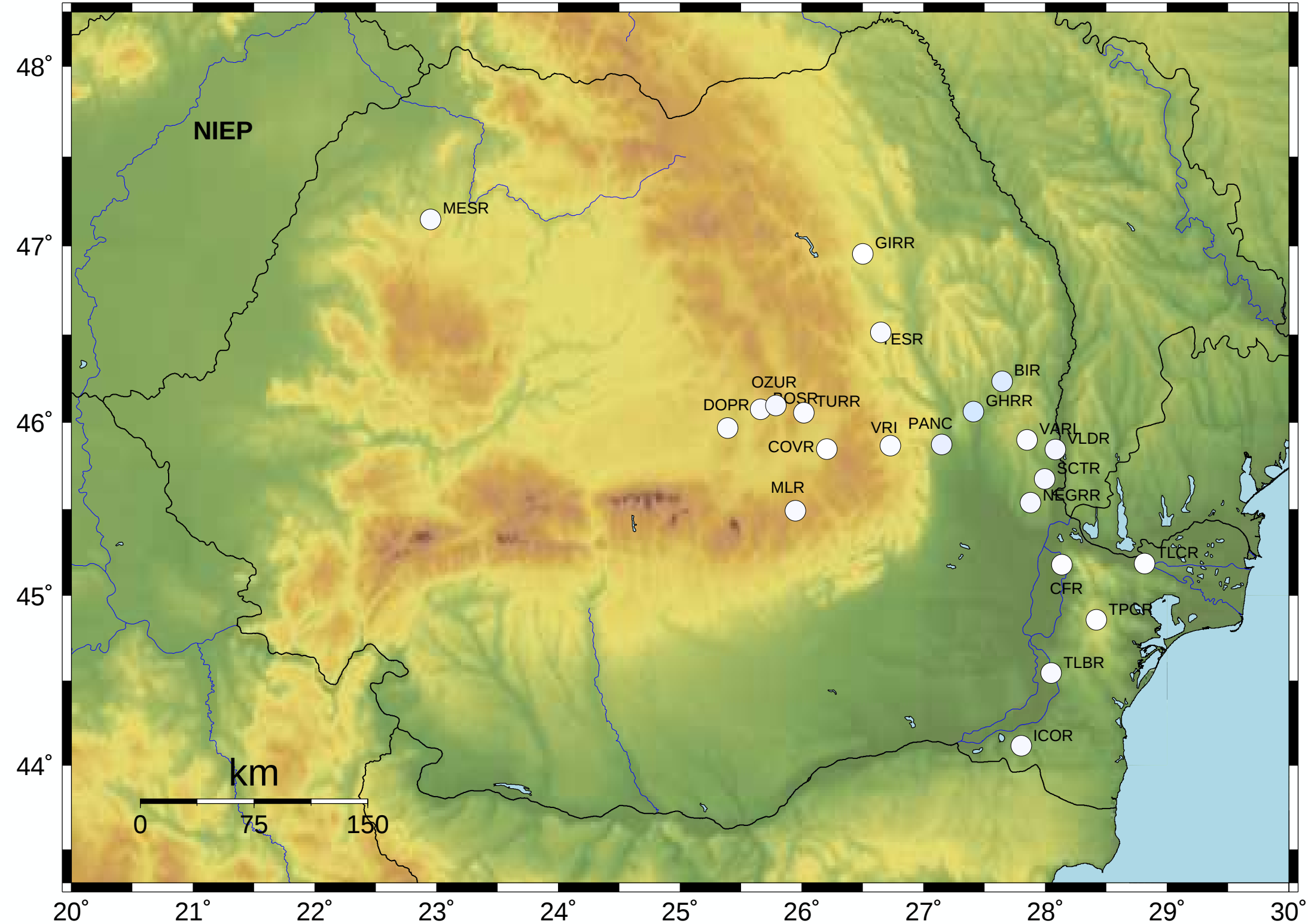


| Station | Dist.(km) | Acc.  |
|---------|-----------|-------|
| ICOR    | 9790      | 0.097 |
| GIRR    | 9657      | 0.026 |
| JURR    | 9651      | 0.017 |
| BIR     | 9627      | 0.015 |
| PANC    | 9696      | 0.011 |
| VRI     | 9729      | 0.010 |
| OZUR    | 9784      | 0.010 |
| VARL    | 9639      | 0.008 |
| GHRR    | 9660      | 0.008 |
| DOPR    | 9826      | 0.007 |
| SCTR    | 9646      | 0.006 |
| COVR    | 9772      | 0.005 |
| VLDR    | 9625      | 0.005 |
| MESR    | 9916      | 0.004 |
| TLCR    | 9621      | 0.004 |
| TPGR    | 9680      | 0.003 |
| CFR     | 9675      | 0.003 |
| TESR    | 9682      | 0.002 |
| TLBR    | 9735      | 0.001 |
| NEGRR   | 9666      | 0.001 |
| MLR     | 9822      | 0.001 |

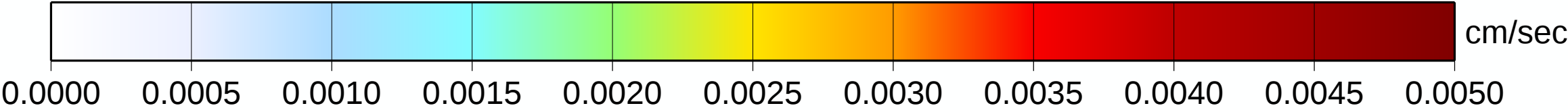


Observed stations velocities – Antelope platform (cm/sec)

Maximum observed velocity: PANC\_HHN 0.001  
Thu Dec 5, 2019 02:03:11 GMT ML Mb 5.9 N44.29 E150.63 Depth: 15.0km ID:41779



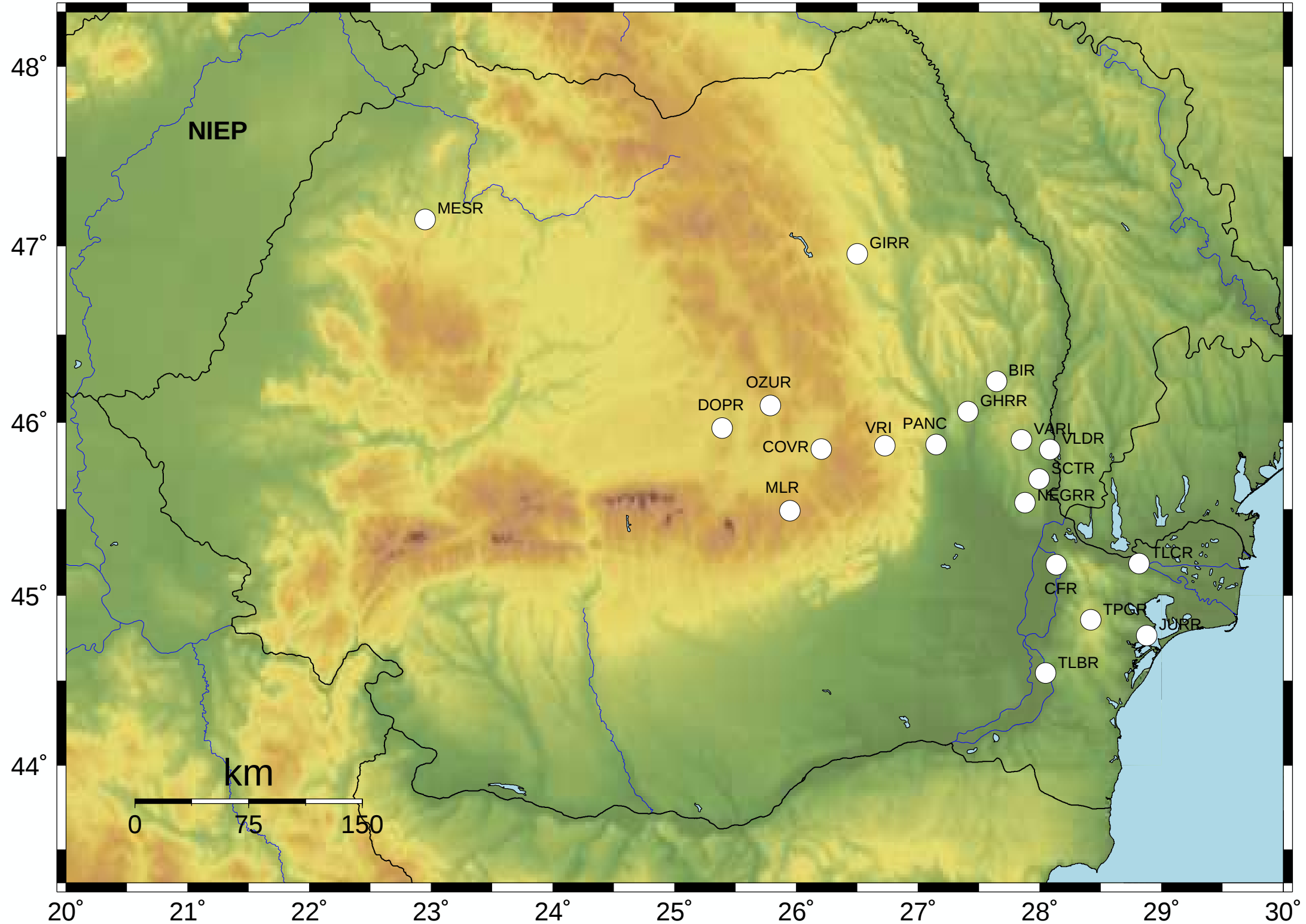
| Station | Dist.(km) | Velocity |
|---------|-----------|----------|
| GHRR    | 9660      | 0.001    |
| BIR     | 9627      | 0.001    |
| PANC    | 9696      | 0.001    |
| VLDR    | 9625      | 0.000    |
| SCTR    | 9646      | 0.000    |
| OZUR    | 9784      | 0.000    |
| NEGRR   | 9666      | 0.000    |
| ICOR    | 9790      | 0.000    |
| TESR    | 9682      | 0.000    |
| MESR    | 9916      | 0.000    |
| TLBR    | 9735      | 0.000    |
| MLR     | 9822      | 0.000    |
| BOSR    | 9796      | 0.000    |
| DOPR    | 9826      | 0.000    |
| TURR    | 9769      | 0.000    |
| VRI     | 9729      | 0.000    |
| VARL    | 9639      | 0.000    |
| TLCR    | 9621      | 0.000    |
| CFR     | 9675      | 0.000    |
| TPGR    | 9680      | 0.000    |
| COVR    | 9772      | 0.000    |
| GIRR    | 9657      | 0.000    |



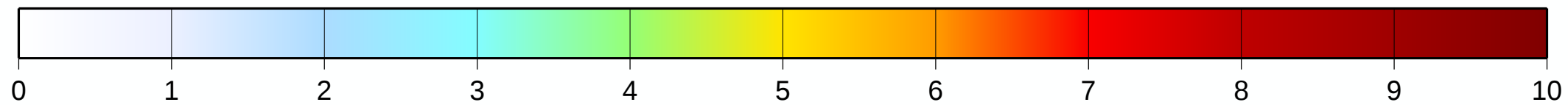
## MSK macroseismic intensities map

Maximum MSK intensity: GIRR\_HNE I

Thu Dec 5, 2019 02:03:11 GMT ML Mb 5.9 N44.29 E150.63 Depth: 15.0km ID:41779



| Station | Dist.(km) | IMSK |
|---------|-----------|------|
| VRI     | 9730      |      |
| VLDR    | 9625      |      |
| VARL    | 9639      |      |
| TPGR    | 9680      |      |
| TLCR    | 9622      |      |
| TLBR    | 9735      |      |
| SCTR    | 9646      |      |
| PANC    | 9696      |      |
| OZUR    | 9784      |      |
| NEGRR   | 9667      |      |
| MLR     | 9823      |      |
| MESR    | 9917      |      |
| JURR    | 9651      |      |
| GIRR    | 9657      |      |
| GHRR    | 9660      |      |
| DOPR    | 9826      |      |
| COVR    | 9773      |      |
| CFR     | 9676      |      |
| BIR     | 9628      |      |



## MSK intensity scale