

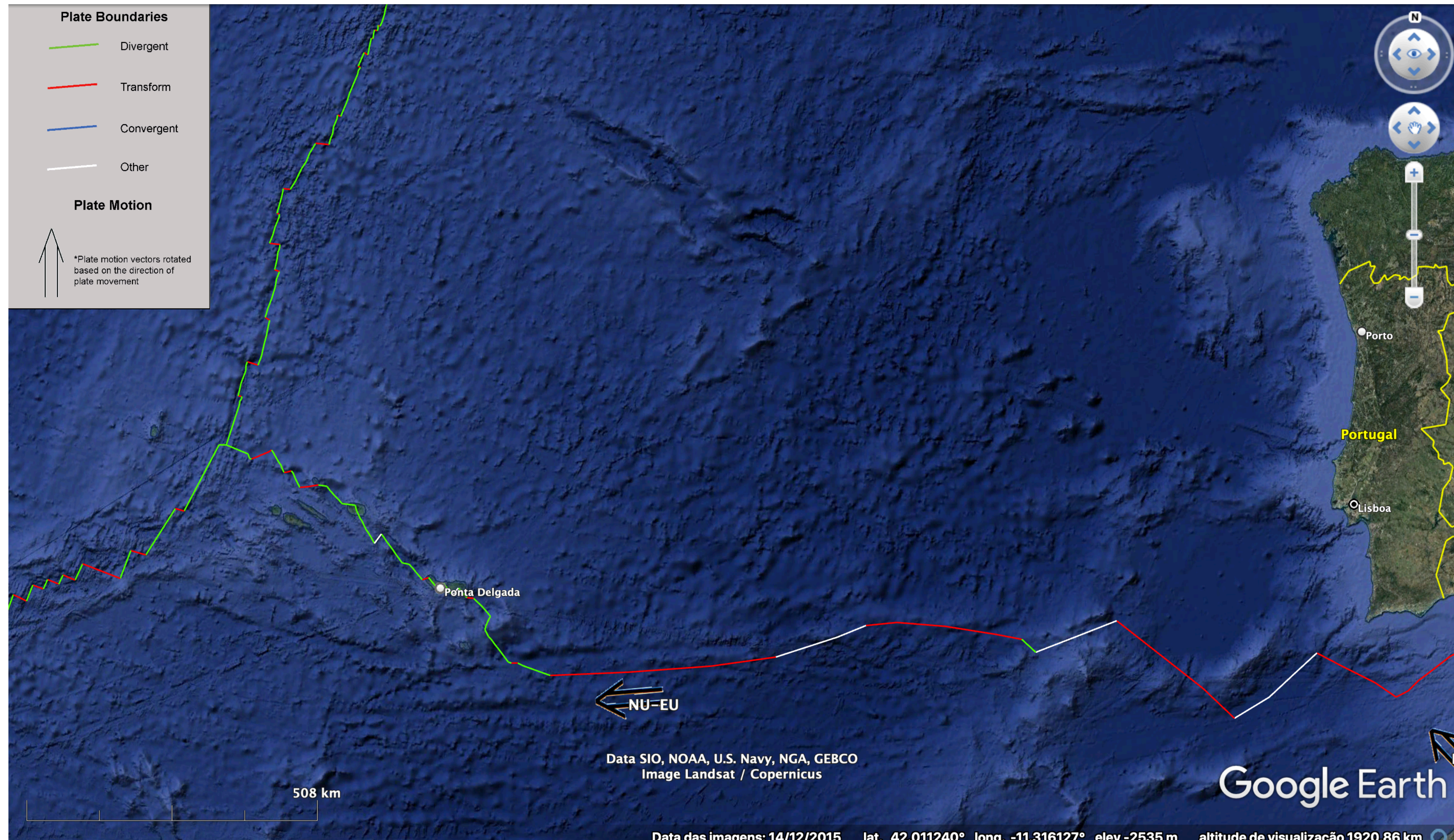
Seismicity of the Terceira Island (Azores)

recorded by a temporary seismic network

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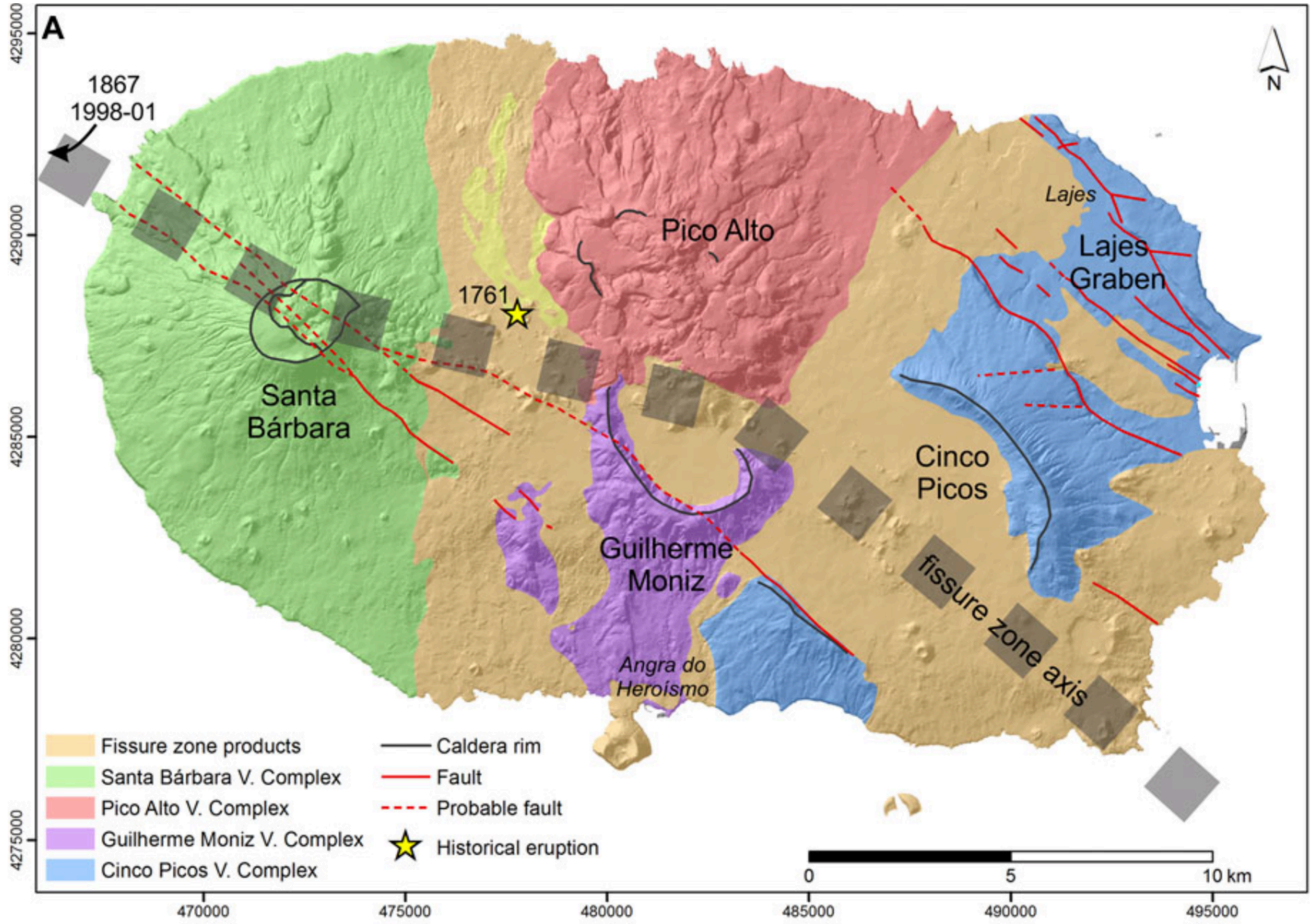
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Location



Seismicity of the Terceira Island (Azores)

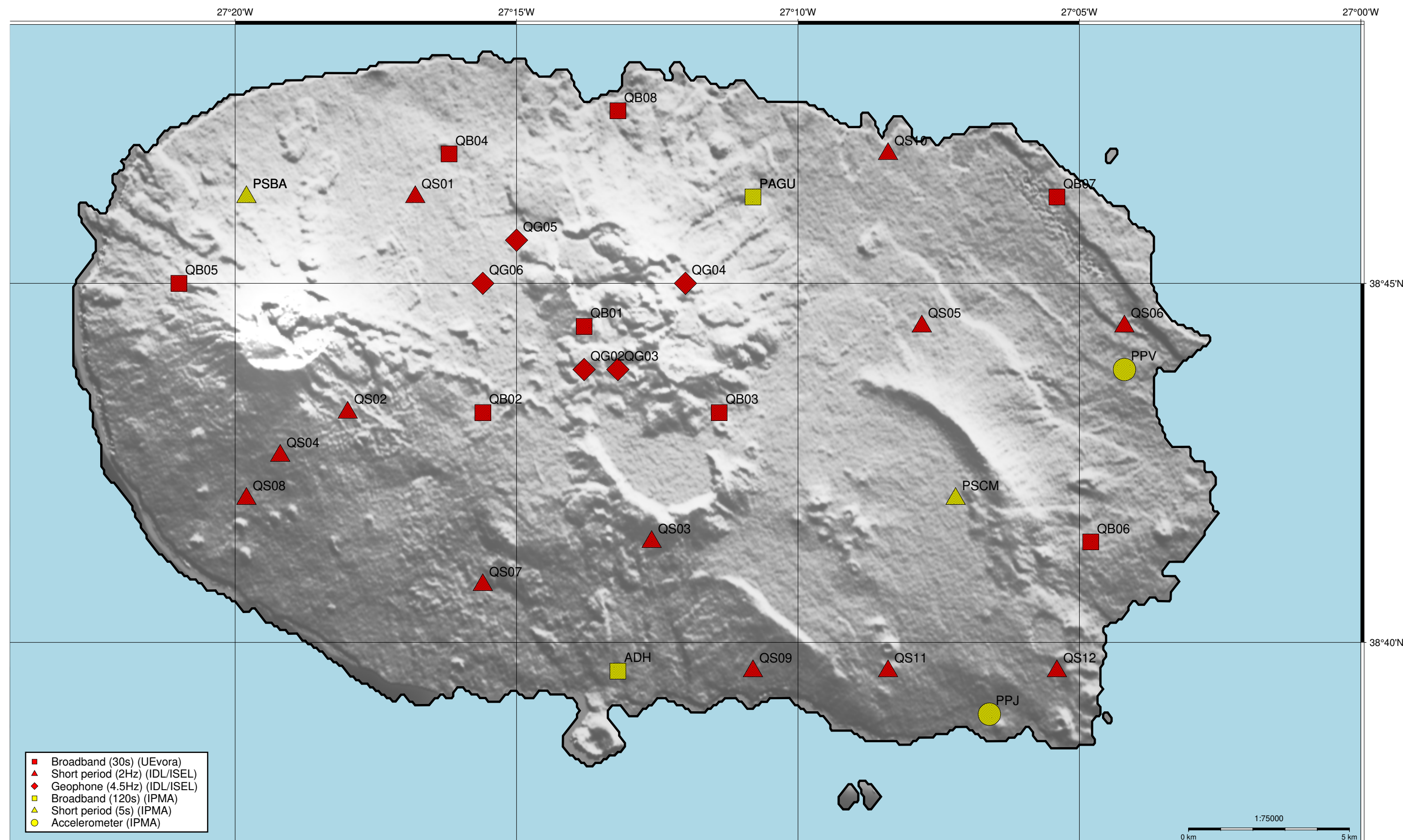
Background



from Pimentel et al., 2021

Seismicity of the Terceira Island (Azores)

Seismic network



32 seismic stations

- 8 broadband 30s
- 2 broadband 120s
- 2 short period 5s
- 1 short period 1s
- 12 short period 2Hz
- 2 accelerometers

Institutions:



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Instituto de Ciências da Terra
Institute of Earth Sciences



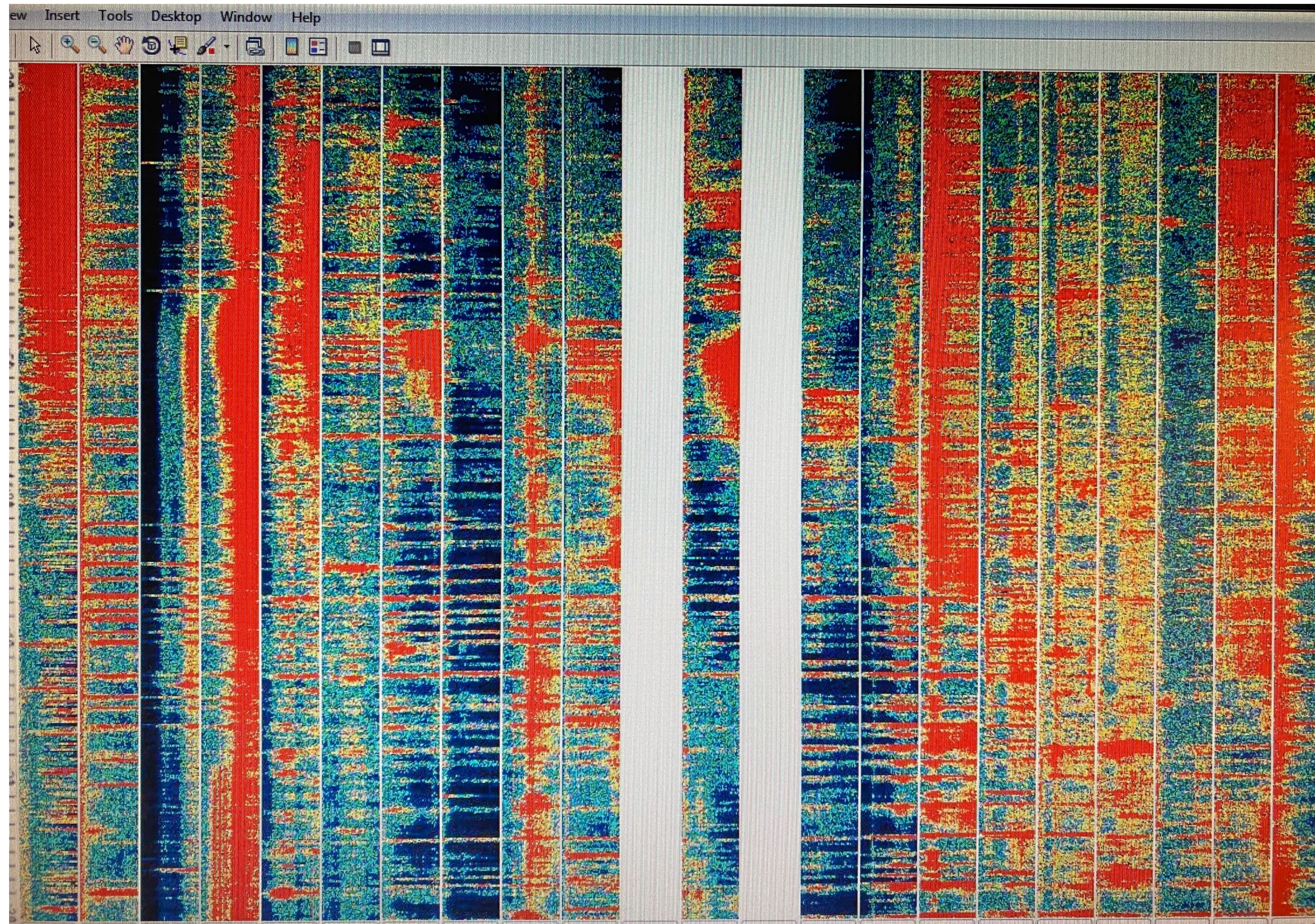
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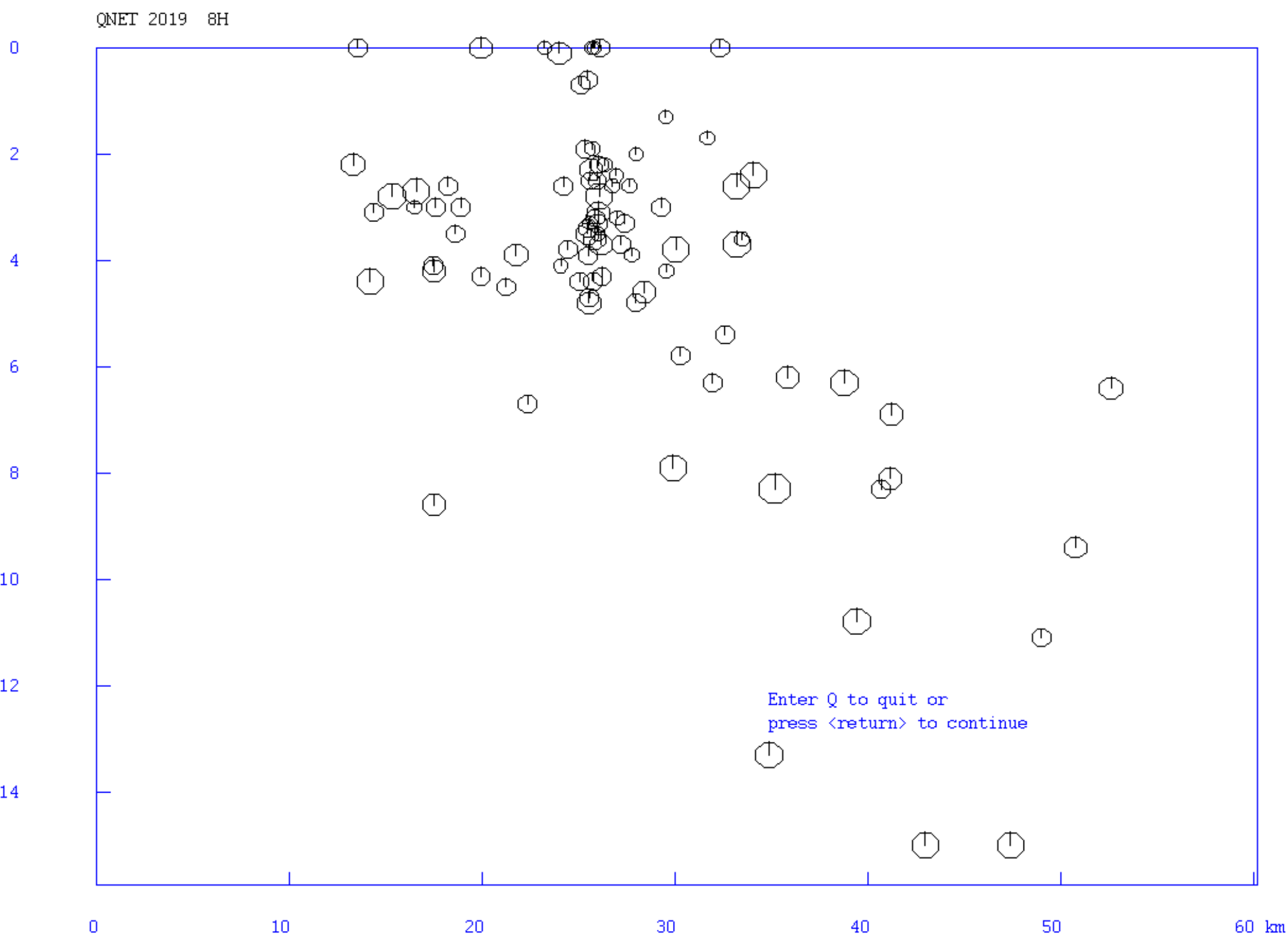
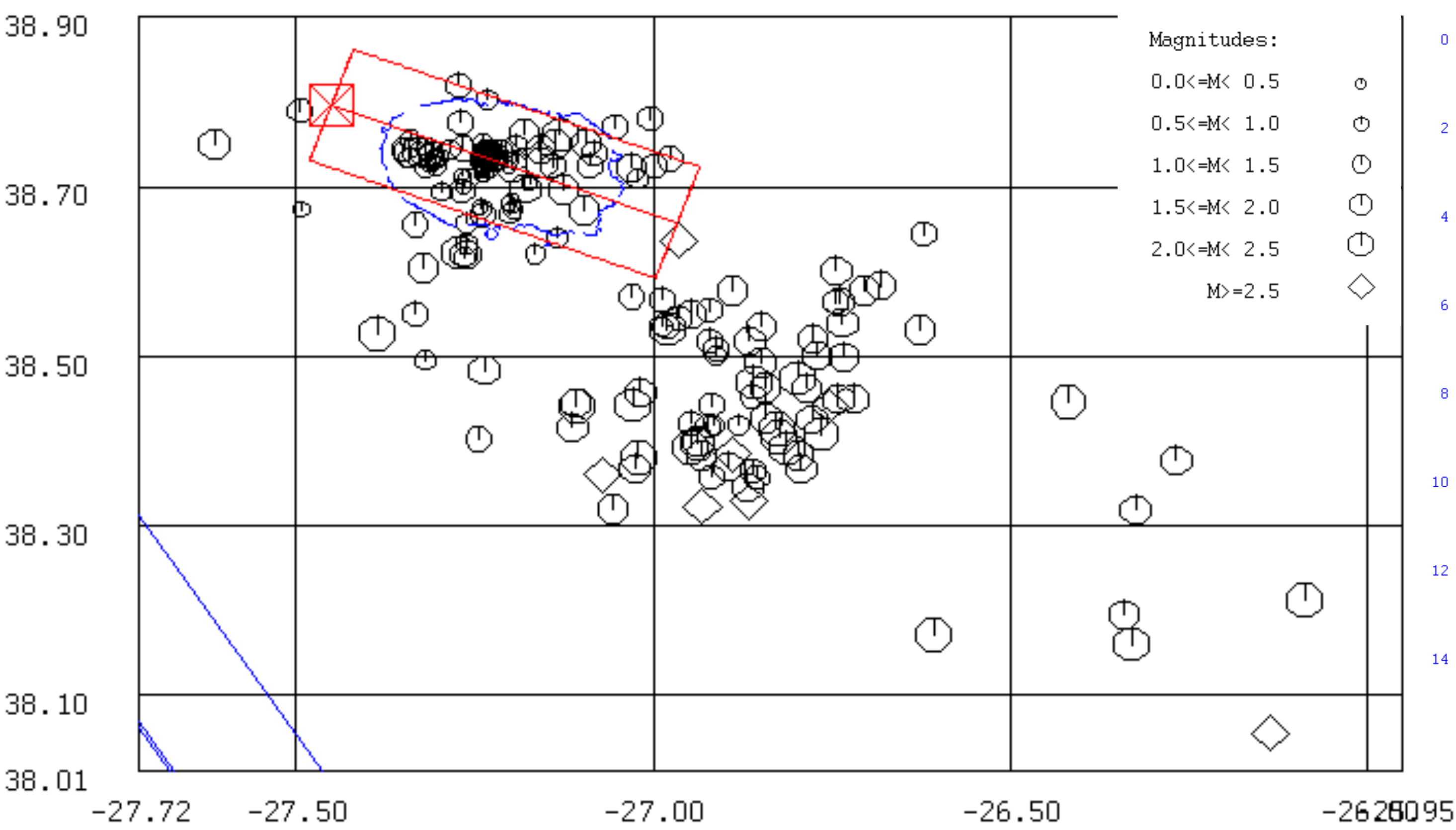
Seismic detection



- Seismic detection is done manually by visual inspection of daily spectrograms of 24 seismic stations.
- Detection is export to SEISAN where is done routine data processing.
- The 1D velocity model is constrained to the Azores Islands.
- We applied a cutoff to limit the earthquakes to the ones in and around the island with $S-P < 6s$. They were detected 141 events ($0 \leq M < 3.6$);
- Amongst these earthquakes, we identified the following types of volcanic earthquakes
 - Volcano-tectonic;
 - Long-period;
 - Hybrid;
- With $S-P > 6s$ we detected around 415 events;

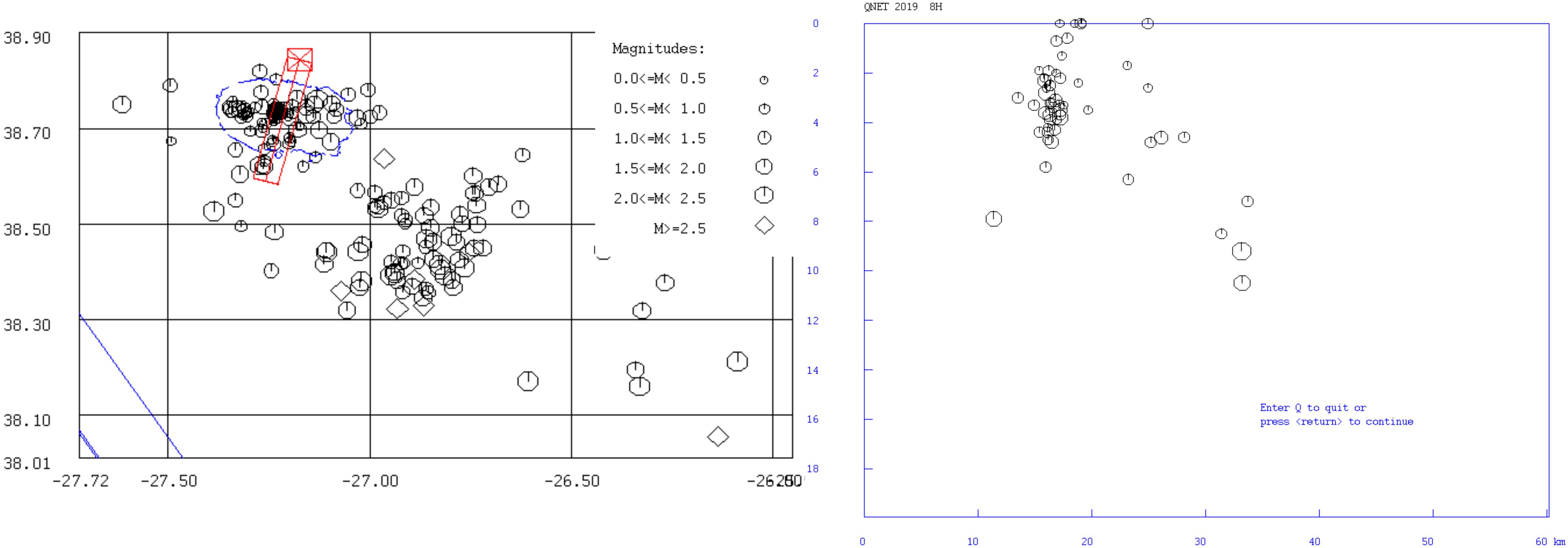
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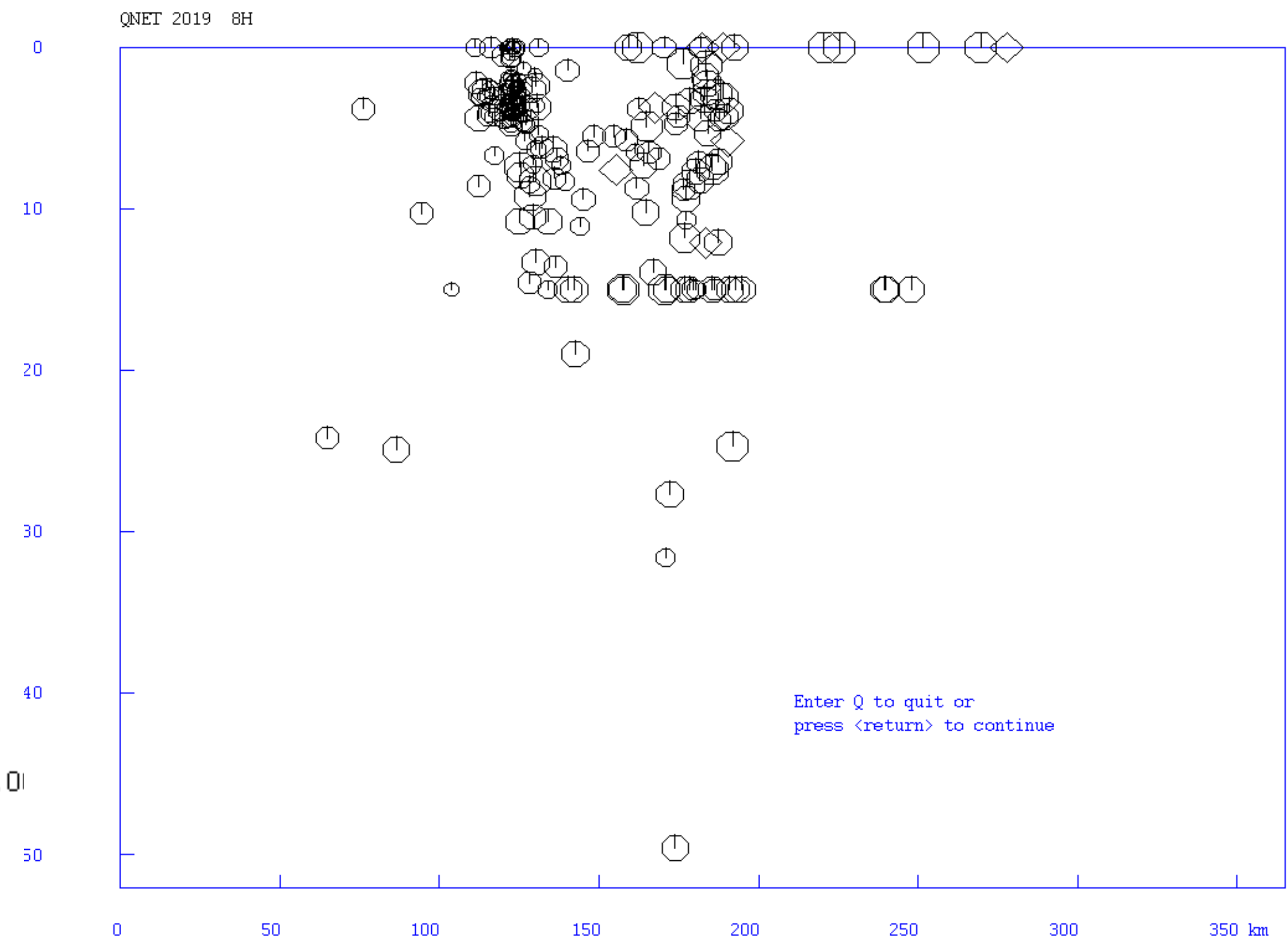
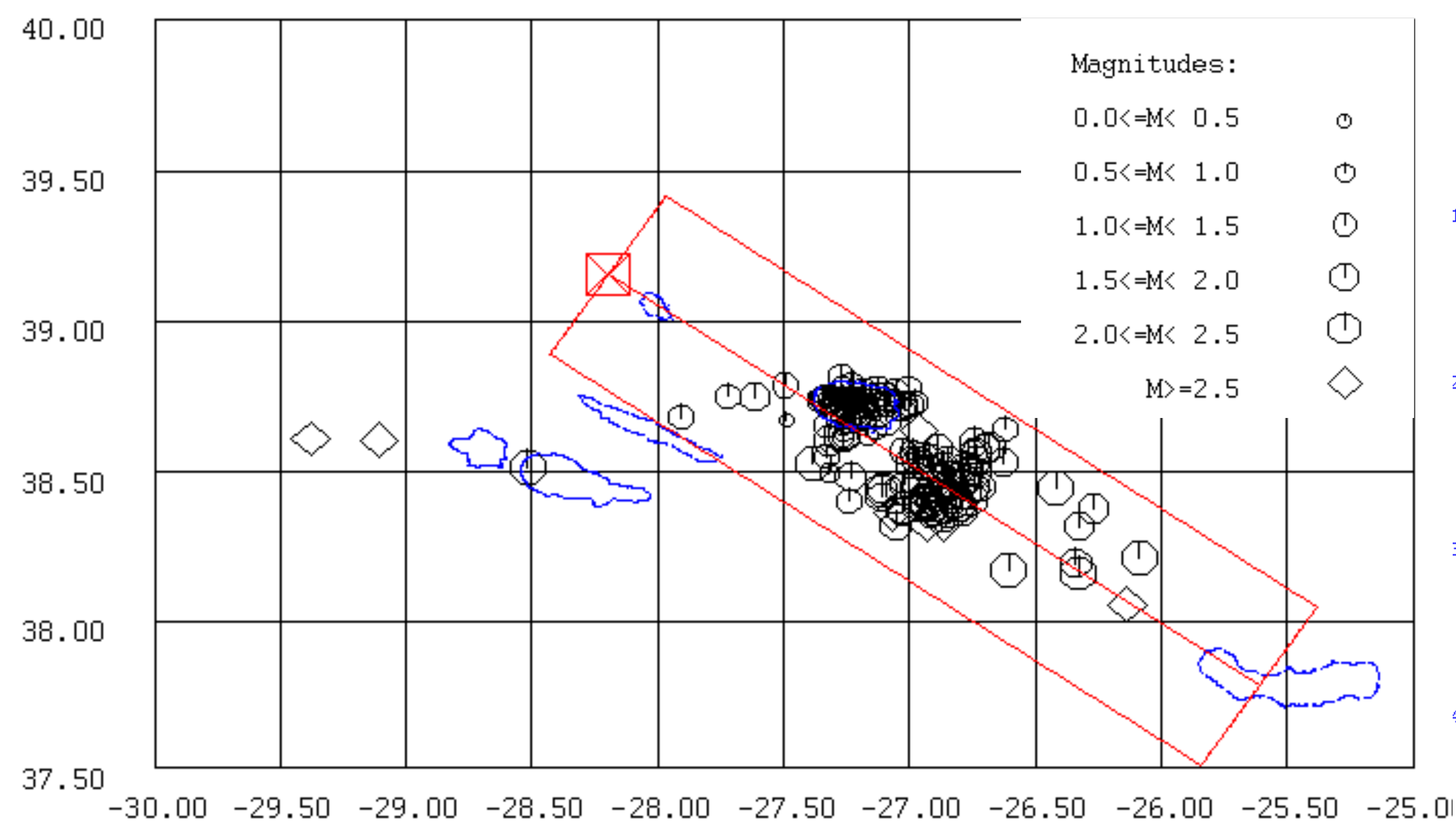
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Thank you for your attention

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