

Seismic network of the Republic of Slovenia

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Seismological observations in Slovenia

- **1897 – 1918** dr. Albin Belar operates observatory in Ljubljana with different seismographs (no records available)
- **1925 – WW II** observations with one *Wiechert* instrument (no records available)
- **1958 – today** continuous recordings at the new Astronomical and Geophysical Observatory with different instruments (*Wiechert, Hiller, Lehner-Griffith, Sprengnether*, home-made seismoscopes)
- **1996 – today** a network of six stations equipped with *Güralp CMG-40T* seismometers with triggered telemetry

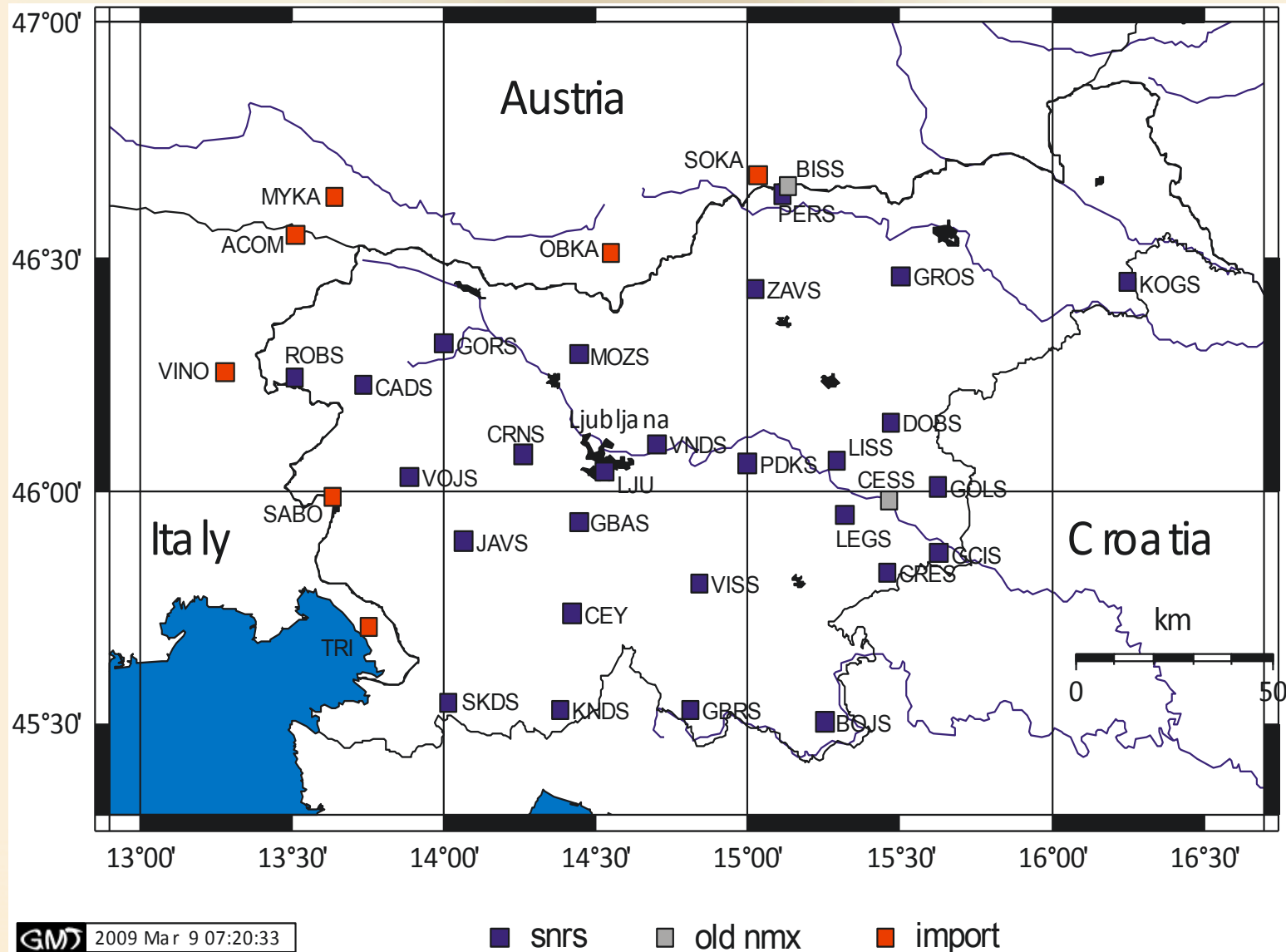
Seismological observations in Slovenia

- **2002 – today** SNRS operates 26 permanent seismic stations with seismometers *Güralp CMG-40T*, *CMG-40T Borehole*, *CMG-3ESPC*, *STS2* and *Q370* dataloggers. Five stations are also equipped with an EpiSensor. Real time telemetry includes ADSL, hired lines and satellite connections. The majority of stations is set up in ~5m deep vaults, four are ~19m boreholes.
- in future we plan to equip all permanent stations with >60s seismometers

Seismic station KNDS



Stations used for real time event location



Data acquisition

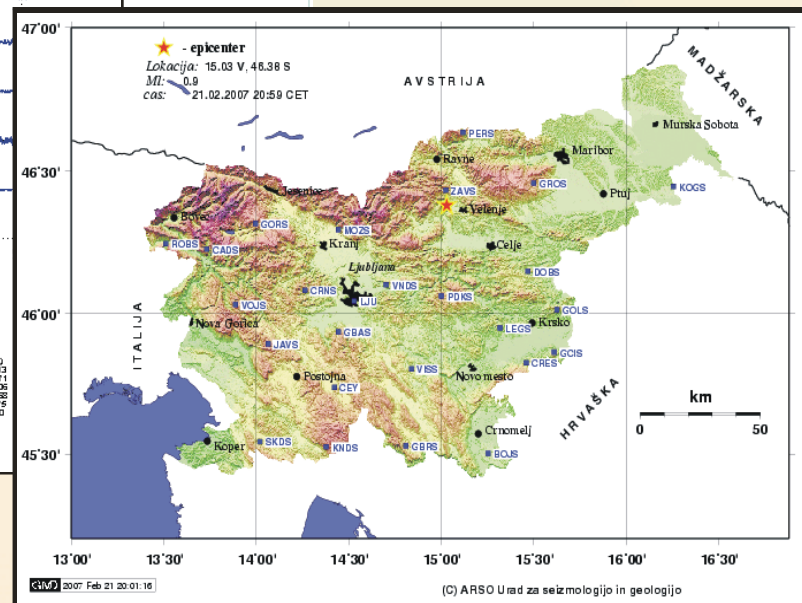
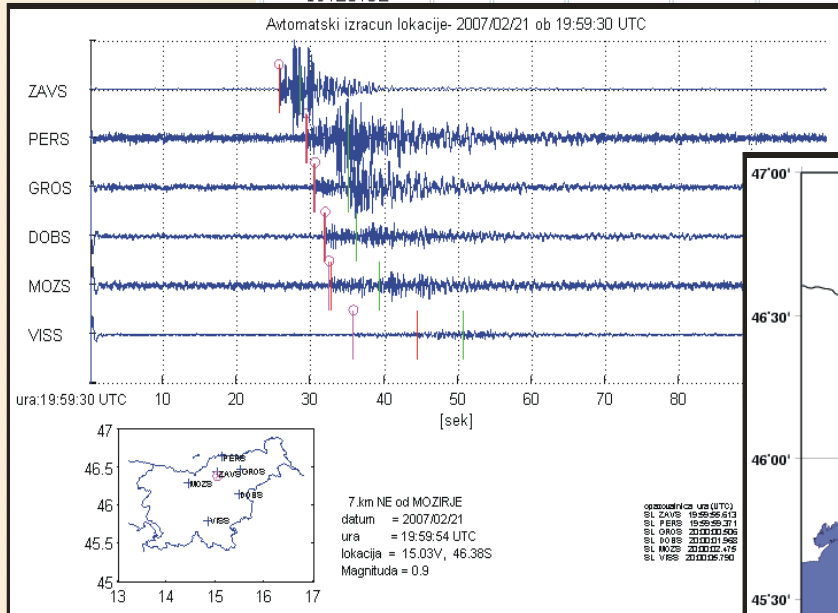
- daily ~2.5 GB of 200, 20 and 1 sps data from permanent stations
- around 7% of 200 sps data loss
- real time import of ~45 stations, the majority from neighboring countries, 7 included in RT event location
- archive of continuous data on tapes and disks (since 2008), event archive on disks

Data analysis

- real time event location with *orbassoc*
- in case of event alerts are sent by sms, mail, printout and published on www
- public is alerted if an event was felt or if $MI \geq 2.5$
- manual analysis is carried out on daily bases with *dbpick* and associating picks with *hypocenter*
- daily bulletins are reviewed and collected into weekly, monthly and annual bulletins

Quakes on WWW

Datum/čas	Širina	Dolžina	Magnituda	Št. postaj	Lokacija
21/02/2007 20:59:54	46.38	15.03	0.9	6	7.km Z od VELENJA
21/02/2007 14:38:12	46.06	15.66	1.0	8	7.km V od KOZJEGA
20/02/2007 17:06:30	46.23	15.97	1.8	12	22.km J od PTUJA
19/02/2007 21:37:49	46.20	15.46	1.4	18	6.km JZ od ŠMARIJ PRI JELŠAH
17/02/2007 19:23:32	46.07	14.42	0.9	9	7.km Z od LJUBLJANE



Data quality control

- visual control with daily event analysis
- periodic PSD review
- data latency of 200 sps vertical component channels monitored – alerting by sms

Thank you for your attention