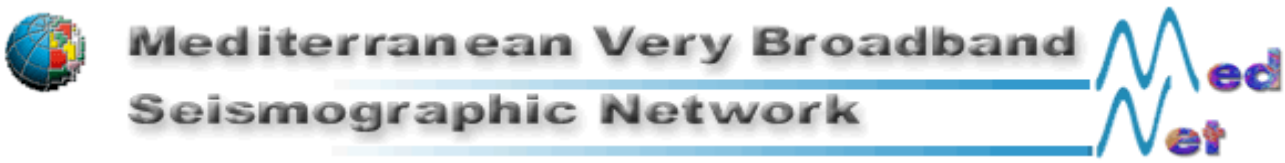

MedNet Status Report for the 2003 FDSN Meeting

Network

Since last year a new station (RTC) as been installed in Rabat, Morocco. The station equipped with STS1 and Quanterra Q380 is mantained in cooperation with the Laboratoire del Geophysique of the local CNRS and it is installed in their back-yard in a two floor vault 10 meters deep. All the other open stations are still working.
All stations equipped by STS-2 sensor are shielded by a steel pot following the Wieland receipe to reduce the long-period noise.
Plans for the near future:

- CEL, CUC, TIP in Calabria, Southern Italy, are in progess.
- TUE (Central Alps) RT connection is due within this year.
- The installation of VJVS(Valijevo, Serbia) is scheduled for the autmn of this year, in quasi real time, due to the lack of reliable physical link.
- Institutes in Georgia, Sudan and Bosnia have been contacted to verify the feasability of new RT BroadBand Station.

Data Center

Several efforts were dedicated to the RT transmission and the MedNet DC now receives data from 10 stations: AQU, BNI, CII, CLTB, IDI, RTC, VSL, ISP, MALT, VLC. Different kinds of hardware connection, as leased telephone lines and internet are used, with seedlink protocol. WDD will be connected in RT in the first days of July. A new station is available in Italy in real time, which is not distributed yet: GIGS (Lennartz M24, CMG3T under the GranSasso Tunnel, Central Italy). Data from all the stations are forwarded to the Italian National Seismic Network, as well as to ODC and IRIS DMC.
The database is now complete from 1990 to present. The transfer from the real-time acquisition to the MySql database still uses the manual procedure scheme that require the verification of gaps due to failures of the RT connection.
The DataCenter, that since June include a Software Engineer, is planning the implementation of a Data Transfer Check that reveals and fills the gaps in data transfer.
NetDC is actually working. A syntactic parser has been added in front of it, but it is still quite unsatisfactory. We are planning something new to let users retrieve waveforms from the archive.
The MedNet SeedLink server takes care of collecting data from other networks, like

GE, HL, and CZ to increase the Country coverage for survey purposes , mainly at border regions. In the other direction, MedNet will distribute data from the new digital stations in Italy (satellite and phone links).

Survey and Research

The automatic and unmanned procedure that compute and distribute the Ml magnitude for relevant earthquakes in Italy and in the surrounding regions called MUSCLES as been integrated by another one called FAST that use the new automatic locator implemented at the Italian National Seismic Network and broadband data available in RT. This new system reduced the expected time for releasing a robust and reliable Ml magnitude down to 6 minutes after the earthquake.

In cooperation with the Quantitative Seismology Unit of INGV, leaded by N.A. Pino, we are working on a project to calculate automatic real-time Moment Tensor solution for earthquakes occurring in Italy. The technique used was developed by Dreger and Langston and automated by Fukuyama. A cooperation with E. Garnero has started this june for the study of the deep structures of the Earth using broad band data.

Station Summary:

Code, location	Lat	Lon	Sensor	Digitizer	Partner	Connection	Comment
AQU, L'Aquila, Italy	42.35	13.4	STS-2	Quanterra		SeedLink	
AIO, Antillo, Italy	37.97	15.23	STS-2	Quanterra		Dial-up	
BNI, Bardonecchia, Italy	45.05	6.68	STS-2	Quanterra		SeedLink	
CII, Carovilli, Italy	41.72	14.31	STS-2	Quanterra		SeedLink	
CLTB, Caltabellotta, Italy	35.78	13.21	STS-2	Quanterra		SeedLink	
GIGS, Gran Sasso, Italy	42.45	13.57	CMG3T	Lennartz M24		SeedLink	Not distributed
IDI, Crete, Greece	35.28	24.89	STS-2	Quanterra	GI-NOA	SeedLink	
ISP, Isparta, Turkey	37.84	30.5	STS-1	Quanterra	GEOFON, Kandilli Obs	SeedLink	
MALT, Malatia, Turkey	38.31	38.43	STS-2	Quanterra	GEOFON, Kandilli Obs	SeedLink	
RTC, Rabat, Morocco	33.99	-6.86	STS-1	Quanterra	CNRS, Morocco	SeedLink	
TRI, Trieste, Italy	45.71	13,76	STS-1	Quanterra	UNITRI, INOGS	SeedLink	
TUE, Stuetta, Italy	46.47	9.35	STS-2	Quanterra		none	RT in progess
VAE, Valguarnera, Italy	37.48	14.41	STS-1	Quanterra		Dial-up	RT in progess
VSL, Villasalto, Italy	39.5	9.38	STS-1	Quanterra		SeedLink	
VTS, Vitosha, Bulgaria	42.62	23.23	STS-1	Quanterra	Univ. of Sofia	Dial-up	RT in progess
WDD, Wield Dalam, Malta	35.87	87.7	STS-2	Quanterra	Univ. of Malta	Dial-up	RT in progess