



Universidad de Puerto Rico

Recinto Universitario de Mayagüez

Red Sísmica de Puerto Rico

Puerto Rico Seismic Network, University of Puerto Rico, Mayagüez Campus

Departamento de Geología

Geology Department

INFORMACIÓN SÍSMICA

Terremoto de Italia - 6 de abril de 2009

Según datos del Centro Nacional de Información de Terremotos del Servicio Geológico de los Estados Unidos (NEIC-USGS, por sus siglas en inglés) el 6 de abril de 2009 a las 03:32:42 de la madrugada (hora local de Italia) se registró un terremoto de magnitud 6.3 Mw con epicentro a 95 km al NE de Roma. Este terremoto fuerte se generó en la región central de Italia con una profundidad de 10 km, en la latitud 42.423 °N y longitud 13.395°E. El sismo fue sentido ampliamente en toda Italia con una intensidad máxima de VII, hasta el momento se han registrado numerosos daños y víctimas en distintos lugares del país. Además el NEIC-USGS ha registrado varias réplicas asociadas al evento.

A continuación incluimos la información sísmica generada y publicada por el NEIC-USGS (<http://earthquake.usgs.gov/eqcenter/recenteqsww/Quakes/us2009fcf.php>) y el Centro Sismológico Euro-Mediterráneo (EMSE, por sus siglas en inglés; <http://www.emsc-csem.org/index.php?page=home>). Un informe oficial del Terremoto de L'Aquila (http://cnt.rm.ingv.it/~earthquake/data_id/2206496920/event.php) está disponible en la página de internet del Instituto Nacional de Geofísica y Volcanología de Italia, [http://www.ingv.it/portale ingv](http://www.ingv.it/portale_ingv).

<http://redsismica.uprm.edu>

6 de abril de 2006, 12:30 pm

GBS

Magnitude 6.3 - CENTRAL ITALY



2009 April 06 01:32:42 UTC

[Versión en Español](#)

- [Details](#)
- [Summary](#)
- [Maps](#)
- [Scientific & Technical](#)
- [Additional Info](#)

[Where can I find...?](#)

Earthquake Details

Magnitude 6.3

Date-Time

- **Monday, April 06, 2009 at 01:32:42 UTC**
- Monday, April 06, 2009 at 03:32:42 AM at epicenter
- [Time of Earthquake in other Time Zones](#)

Location 42.423°N, 13.395°E

Depth 10 km (6.2 miles) set by location program

Region CENTRAL ITALY

Distances

70 km (40 miles) W of **Pescara, Italy**
95 km (60 miles) NE of **ROME, Italy**
115 km (70 miles) SE of **Perugia, Italy**
135 km (85 miles) S of **Ancona, Italy**

Location Uncertainty horizontal +/- 4.6 km (2.9 miles); depth fixed by location program

Parameters

NST= 66, Nph= 66, Dmin=7.7 km, Rmss=0.95 sec, Gp= 50°,
M-type=teleseismic moment magnitude (Mw), Version=7

Source

- USGS NEIC (WDCS-D)

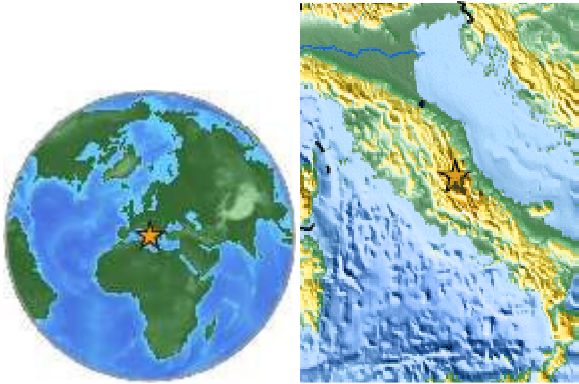
Event ID

us2009fcaf

- This event has been reviewed by a seismologist.

Fuente NEIC-USGS: <http://earthquake.usgs.gov/eqcenter/recenteqsww/Quakes/us2009fcaf.php>

Earthquake Summary



Tectonic Summary

The April 6th 2009 earthquake in Central Italy occurred as a result of normal faulting on a NW-SE oriented structure in the central Apennines, a mountain belt that runs from the Gulf of Taranto in the south to the southern edge of the Po basin in northern Italy. Geologically, the Apennines are largely an accretionary wedge formed as a consequence of subduction. This region is tectonically and geologically complex, involving both subduction of the Adria micro-plate beneath the Apennines from east to west, continental collision between the Eurasia and Africa plates building the Alpine mountain belt further to the north and the opening of the Tyrrhenian basin to the west. The evolution of this system has caused the expression of all different tectonic styles acting at the same time in a broad region surrounding Italy and the central Mediterranean. The April 6th, 2009 earthquake is related to normal faulting and the east-west extensional tectonics that dominate along the entire Apennine belt, primarily a response to the Tyrrhenian basin opening faster than the compression between the Eurasian and African plates.

The central Apennine region has experienced several significant earthquakes in recorded history. In 1997, a significant Mw 6.0 earthquake 85 km north-northwest of the April 6th 2009 event killed 11, injured over 100 and destroyed approximately 80,000 homes in the Marche and Umbria regions. This 1997 event was part of a series of earthquakes known as the Umbria-Marche seismic sequence, which included eight events of magnitude greater than M5.0 in a two-month period between September and November of that year.

Earthquake Information for Europe:

<http://earthquake.usgs.gov/regional/world/index.php?region=Europe>

Earthquake Information for Italy:

<http://earthquake.usgs.gov/regional/world/index.php?region=Italy>



NEIC-USGS Phase Data - [Explanation of Parameters](#)

6 APR 2009 (96)

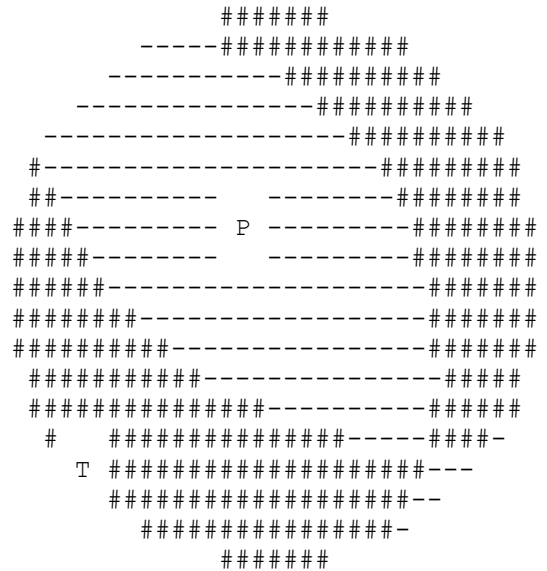
ot = 01:32:42.44 +/- 0.22 CENTRAL ITALY
lat = 42.423 +/- 3.3
lon = 13.395 +/- 3.2 MAGNITUDE 6.3 (GS)
dep = 10.0 (geophysicist)

70 km (40 miles) W of Pescara, Italy (pop 115,000)
95 km (60 miles) NE of ROME, Italy (pop 2,643,000)
115 km (70 miles) SE of Perugia, Italy (pop 156,000)
135 km (85 miles) S of Ancona, Italy (pop 98,000)

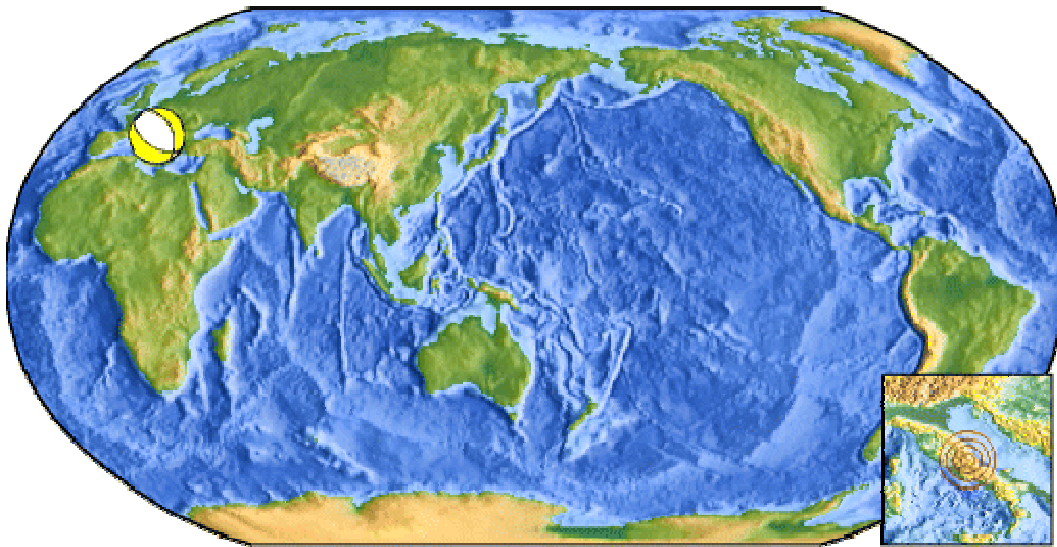
nph = 66 of 71 se = 0.95 FE=381 A
error ellipse = (217.4, 0.0, 4.6;127.4, 0.0, 3.8; 0.0, 0.0, 0.0)
mb = 6.0 (24) ML = 5.6 (8) mblg = 4.8 (21) md = 0.0 (0) MS = 0.0 (0)

USGS Centroid Moment Tensor Solution

09/04/06 01:32:42.64
CENTRAL ITALY
Epicenter: 42.398 13.367
MW 6.3
USGS CENTROID MOMENT TENSOR
09/04/06 01:32:54.79
Centroid: 42.737 13.470
Depth 10 No. of sta:114
Moment Tensor; Scale 10**18 Nm
Mrr=-3.07 Mtt= 1.27
Mpp= 1.80 Mrt=-1.23
Mrp=-0.26 Mtp=-1.65
Principal axes:
T Val= 3.27 Plg= 5 Azm=227
N 0.22 17 135
P -3.49 71 334
Best Double Couple:Mo=3.4*10**18
NP1:Strike=337 Dip=42 Slip= -62
NP2: 122 53 -112



CENTRAL ITALY
Mw 6.3
USGS Centroid Moment Tensor Solution



Date: 06 APR 2009
Time: 01:32:42.64
Epicenter: 42.398 13.367
Depth: 10 km

M6.3 – Central Italy

Monday, April 6, 2009 at 01:32:42 UTC
Monday, April 6, 2009 at 03:32:42 UTC+2

42.42°N, 13.39°E
Depth: 10km



Réplicas procesadas en NEIC-USGS

http://earthquake.usgs.gov/eqcenter/recenteqsww/Quakes/quakes_all.php

[MAP 4.3](#) [2009/04/06 07:17:14](#) 42.448 13.363 10.0 **CENTRAL ITALY**

[MAP 4.4](#) [2009/04/06 03:56:48](#) 42.387 13.322 10.0 **CENTRAL ITALY**

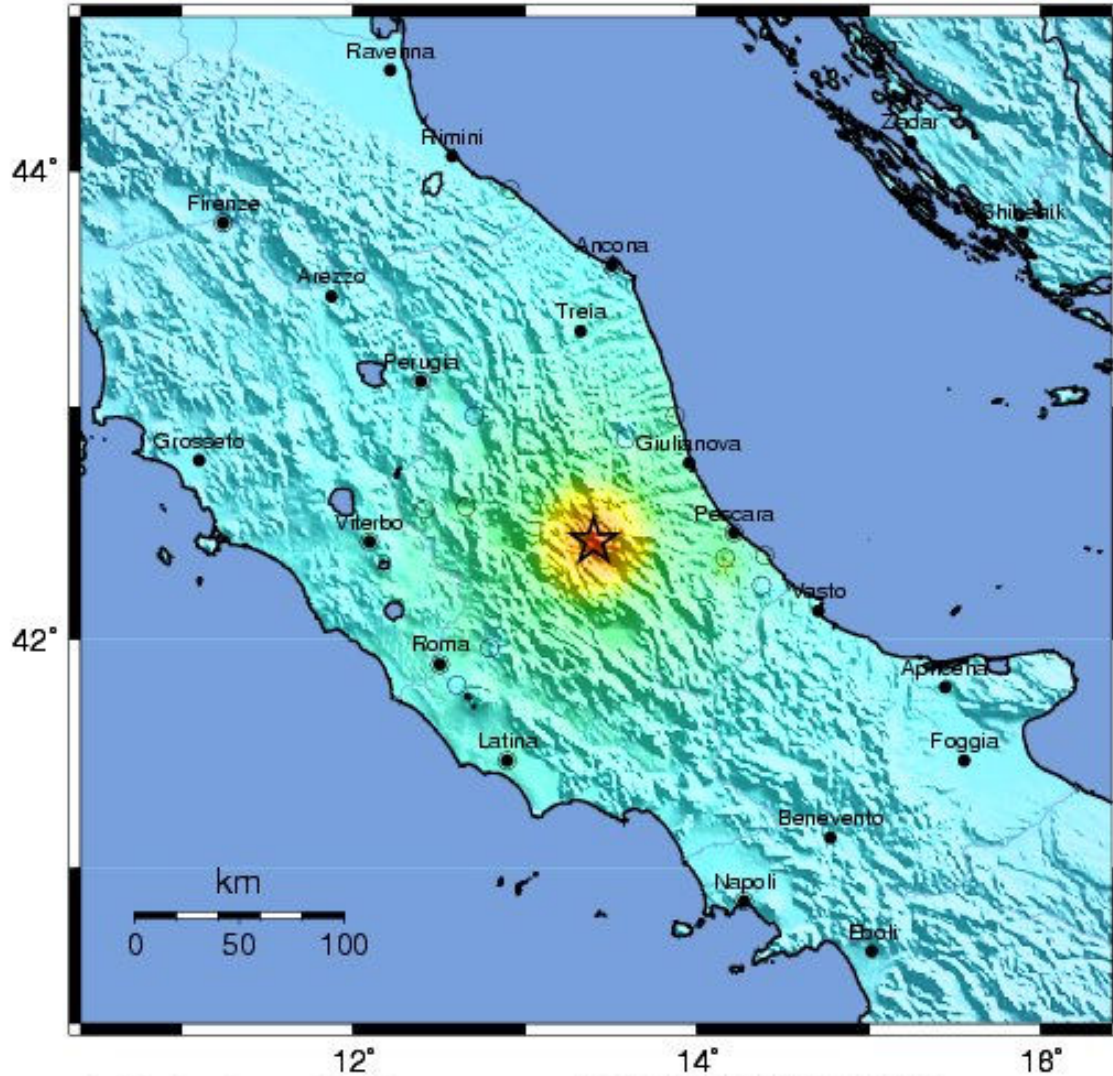
[MAP 4.8](#) [2009/04/06 02:37:06](#) 42.512 13.397 10.0 **CENTRAL ITALY**

ShakeMap NEIC-USGS



USGS ShakeMap : CENTRAL ITALY

Mon Apr 6, 2009 01:32:42 GMT M 6.3 N42.42 E13.39 Depth: 10.0km ID:2009caf



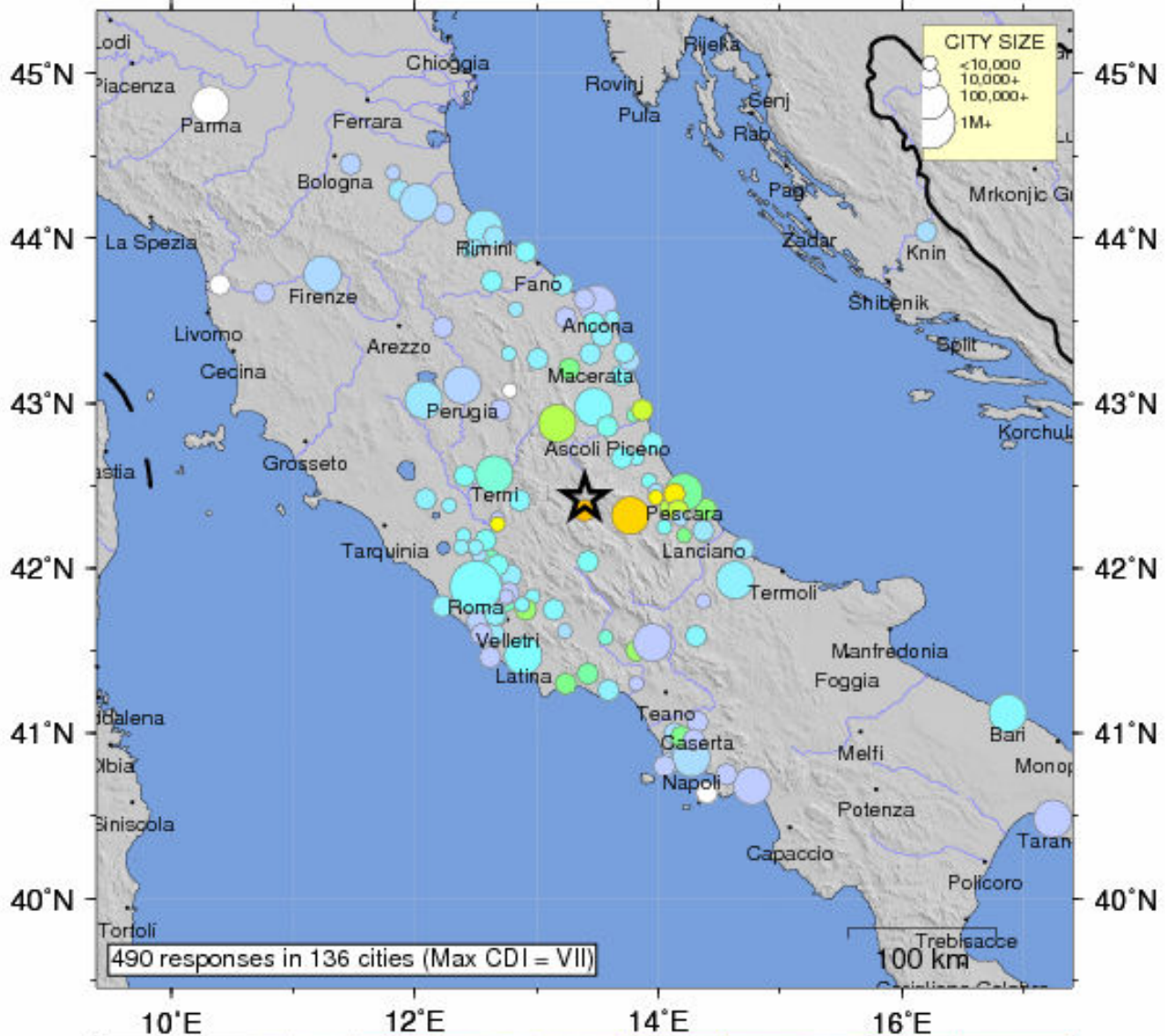
Map Version 2 Processed Sun Apr 5, 2009 09:30:50 PM MDT – NOT REVIEWED BY HUMAN

PERCEIVED SHAKING	Not felt	Weak	Light	Moderate	Strong	Very strong	Severe	Violent	Extreme
POTENTIAL DAMAGE	none	none	none	Very light	Light	Moderate	Moderate/Heavy	Heavy	Very Heavy
PEAK ACC.(%g)	<.17	.17-1.4	1.4-3.9	3.9-9.2	9.2-18	18-34	34-65	65-124	>124
PEAK VEL.(cm/s)	<0.1	0.1-1.1	1.1-3.4	3.4-8.1	8.1-16	16-31	31-60	60-116	>116
INSTRUMENTAL INTENSITY	I	II-III	IV	V	VI	VII	VIII	IX	X+

Mapa Did You Feel It? NEIC-USGS

USGS Community Internet Intensity Map CENTRAL ITALY

Apr 6 2009 03:32:42 UTC+2 42.4228N 13.3945E M6.3 Depth: 10 km ID:us2009fcaf



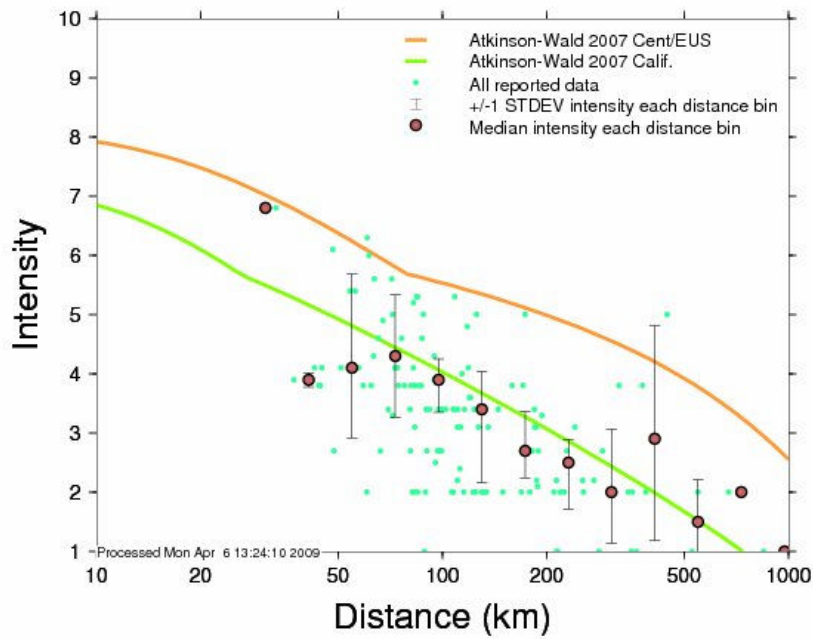
INTENSITY	I	II-III	IV	V	VI	VII	VIII	IX	X+
SHAKING	Not felt	Weak	Light	Moderate	Strong	Very strong	Severe	Violent	Extreme
DAMAGE	none	none	none	Very light	Light	Moderate	Moderate/Heavy	Heavy	V. Heavy

Processed: Mon Apr 6 13:23:41 2009

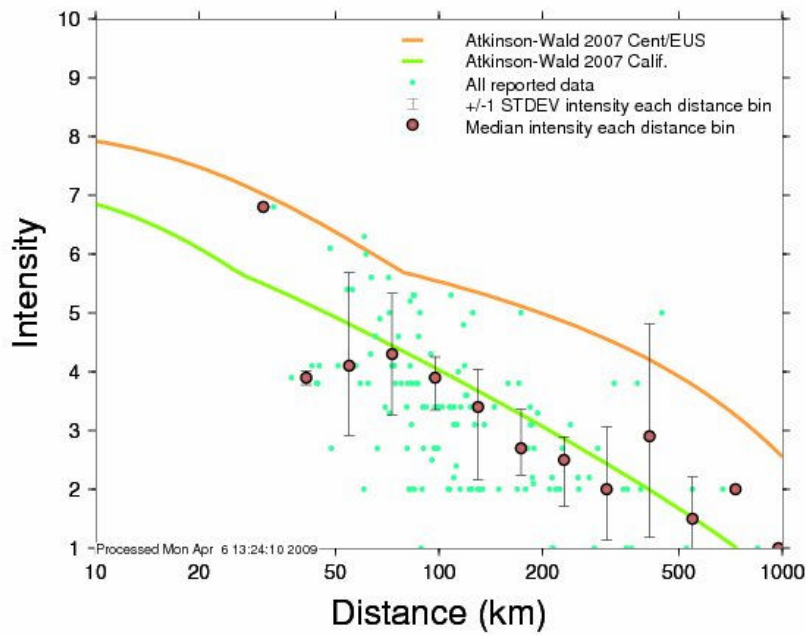
Intensity vs. Distance



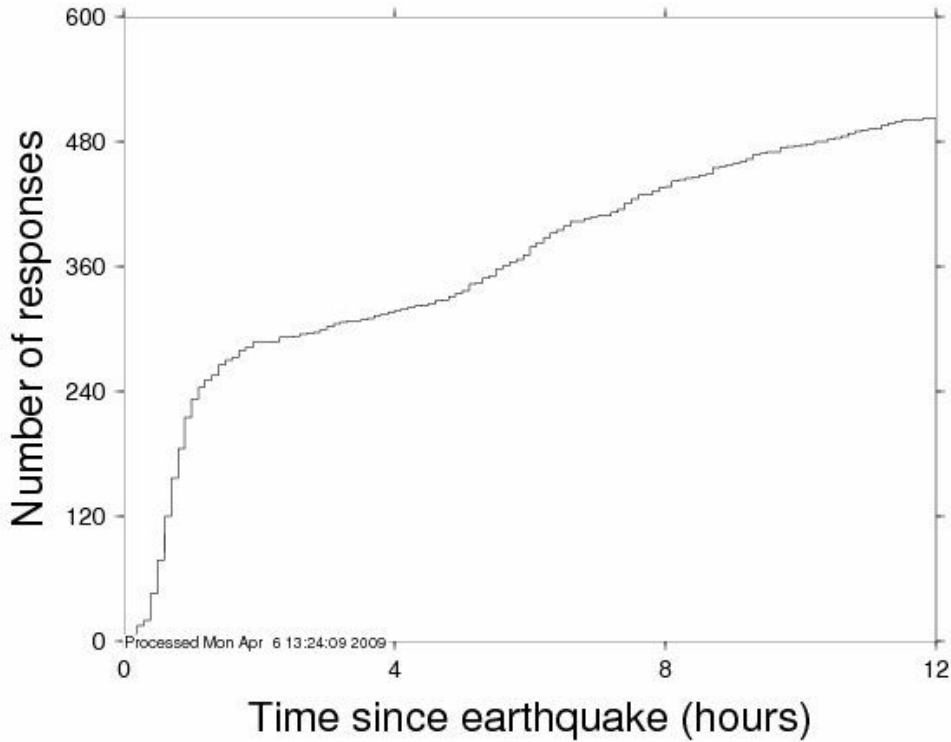
Distance vs. Intensity Plot (ID us2009fcf)



Distance vs. Intensity Plot (ID us2009fcf)



Responses vs. Time Plot (ID us2009fcaf)



Responses vs. Time

Summary of Responses by Zip

Location	MMI	Resp.	Distance	Latitude	Longitude
Acquafondata	2	1	107	41.55°N	13.95°E
Acquaviva Picena	4	1	65	42.93°N	13.80°E
Agnone	2	1	106	41.80°N	14.37°E
Albano Laziale	3	1	98	41.72°N	12.66°E
Amelia	4	2	82	42.56°N	12.41°E
Ampezzo	5	1	445	46.41°N	12.79°E
Anagni	3	1	77	41.75°N	13.14°E
Ancona	2	4	131	43.60°N	13.50°E
Angri	2	1	209	40.75°N	14.56°E
Anzio	2	1	124	41.46°N	12.62°E
Aprilia	3	1	110	41.60°N	12.65°E
Arce	4	1	94	41.58°N	13.57°E
Ardea	2	1	115	41.60°N	12.55°E
Artena	5	1	84	41.75°N	12.91°E

Summary of Responses by Zip

Location	MMI	Resp.	Distance	Latitude	Longitude
Ascoli Piceno	4	4	50	42.86°N	13.58°E
Athens	1	1	1,008	37.98°N	23.73°E
Aversa	5	1	173	40.98°N	14.19°E
Avezzano	4	1	42	42.04°N	13.42°E
Bari	3	1	323	41.12°N	16.87°E
Borgo Maggiore	3	1	184	43.93°N	12.45°E
Bucchianico	2	1	66	42.30°N	14.18°E
Caivano	2	1	178	40.96°N	14.29°E
Campagnano di Roma	3	1	89	42.13°N	12.38°E
Caserta	2	3	168	41.07°N	14.32°E
Cassino	5	2	108	41.50°N	13.82°E
Castel Frentano	5	1	84	42.20°N	14.37°E
Castel Gandolfo	2	1	96	41.75°N	12.65°E
Castelforte	2	1	129	41.30°N	13.82°E
Castellalto	3	1	44	42.67°N	13.82°E
Castelnuovo di Porto	3	1	81	42.12°N	12.50°E
Castilenti	4	1	44	42.53°N	13.92°E
Cava de' Tirreni	2	1	218	40.71°N	14.69°E
Cepagatti	5	1	55	42.37°N	14.07°E
Cesena	2	1	213	44.15°N	12.24°E
Chieti	5	7	63	42.35°N	14.16°E
Ciampino	2	3	95	41.80°N	12.60°E
Citt� di Castello	2	2	149	43.46°N	12.23°E
Civitanova Marche	3	1	102	43.31°N	13.72°E
Colonna	2	1	84	41.83°N	12.75°E
Dogliola	3	2	115	41.93°N	14.63°E
Faenza	3	2	241	44.29°N	11.87°E
Falconara Marittima	2	2	134	43.63°N	13.39°E
Fermo	3	1	86	43.17°N	13.70°E
Fiano Romano	4	1	72	42.17°N	12.58°E
Fiumicino	3	3	120	41.77°N	12.23°E
Florence	2	6	231	43.78°N	11.24°E
Foligno	2	2	82	42.96°N	12.70°E
Fondi	4	1	118	41.36°N	13.42°E
Forl�	2	1	228	44.22°N	12.03°E
Formia	3	1	130	41.26°N	13.59°E
Fossato di Vico	3	1	110	43.30°N	12.77°E
Francavilla al Mare	3	2	69	42.44°N	14.24°E
Frascati	2	2	89	41.82°N	12.68°E
Genazzano	3	1	74	41.83°N	12.97°E
Genzano di Roma	2	1	99	41.71°N	12.67°E
Giulianova	3	1	59	42.76°N	13.95°E
Gualdo	5	1	54	42.88°N	13.17°E
Guardiagrele	5	1	71	42.20°N	14.21°E
Guidonia	4	1	74	42.02°N	12.68°E
Isernia	3	2	119	41.59°N	14.31°E
Jesi	2	1	122	43.52°N	13.24°E

Summary of Responses by Zip

Location	MMI	Resp.	Distance	Latitude	Longitude
Knin	2	1	290	44.04°N	16.20°E
Labico	3	1	83	41.78°N	12.88°E
Lanciano	3	3	83	42.23°N	14.37°E
Latina	3	3	113	41.47°N	12.89°E
London	1	1	1,441	51.52°N	0.10°W
Loreto Aprutino	6	1	48	42.43°N	13.98°E
L'Îquila	7	1	8	42.35°N	13.39°E
Macerata	3	1	97	43.30°N	13.44°E
Manoppello	4	1	57	42.25°N	14.05°E
Marano di Napoli	2	1	181	40.90°N	14.18°E
Matelica	3	1	99	43.27°N	13.01°E
Mazzano Romano	3	1	85	42.20°N	12.40°E
Meta	1	1	214	40.65°N	14.40°E
Mira	1	1	351	45.45°N	12.12°E
Monte di Procida	2	3	188	40.80°N	14.05°E
Montefalcone Appennino	3	1	62	42.98°N	13.47°E
Monterotondo	4	1	76	42.05°N	12.62°E
Montopoli in Val d'Arno	2	1	255	43.67°N	10.76°E
Mordano	2	1	254	44.40°N	11.82°E
Morlupo	3	1	80	42.13°N	12.50°E
Naples	2	31	189	40.85°N	14.27°E
Nocera Umbra	1	1	88	43.08°N	12.78°E
Nottingham	2	1	1,603	52.97°N	1.18°W
Numana	3	1	123	43.52°N	13.62°E
Ortona	5	2	82	42.36°N	14.39°E
Osimo	4	3	118	43.49°N	13.47°E
Ozzano Dell'Emilia	2	1	273	44.45°N	11.47°E
Paciano	3	1	127	43.02°N	12.07°E
Padova	2	1	353	45.41°N	11.87°E
Palestrina	2	2	81	41.85°N	12.77°E
Parma	1	1	363	44.81°N	10.32°E
Pergola	3	1	135	43.57°N	12.83°E
Perugia	2	4	112	43.11°N	12.39°E
Pesaro	3	4	170	43.92°N	12.91°E
Pescara	4	13	67	42.46°N	14.21°E
Piano di Sorrento	1	1	215	40.64°N	14.40°E
Picciano	2	1	48	42.47°N	13.98°E
Pisa	1	1	283	43.72°N	10.40°E
Poggio Catino	2	2	60	42.30°N	12.68°E
Poggio Mirteto	5	1	61	42.27°N	12.68°E
Pomezia	2	1	110	41.68°N	12.51°E
Porto Sant'Elpidio	2	1	97	43.26°N	13.76°E
Pozzuoli	2	4	186	40.83°N	14.12°E
Pãjtraí	1	1	847	38.24°N	21.73°E
Reading	2	1	1,485	51.45°N	0.98°W
Recanati	3	1	110	43.41°N	13.54°E
Riano	2	1	80	42.08°N	12.53°E

Summary of Responses by Zip

Location	MMI	Resp.	Distance	Latitude	Longitude
Riccione	3	1	186	44.01°N	12.65°E
Rieti	3	1	44	42.41°N	12.86°E
Rimini	3	2	193	44.06°N	12.57°E
Rocca Priora	4	1	87	41.80°N	12.75°E
Rome	3	244	94	41.89°N	12.50°E
Salerno	2	1	225	40.68°N	14.77°E
San Benedetto del Tronto	5	3	71	42.96°N	13.87°E
San Cipriano d'Âversa	2	1	169	41.00°N	14.13°E
Senigallia	3	1	144	43.72°N	13.21°E
Serravalle	3	1	184	43.95°N	12.49°E
Spoltore	6	1	60	42.45°N	14.13°E
Supino	2	1	90	41.62°N	13.23°E
Taranto	2	1	387	40.48°N	17.24°E
Teramo	3	3	37	42.67°N	13.70°E
Terni	4	7	63	42.57°N	12.65°E
Terracina	5	1	125	41.30°N	13.24°E
Tirana	2	1	547	41.33°N	19.82°E
Tivoli	3	4	71	41.96°N	12.79°E
Tolentino	5	1	88	43.21°N	13.27°E
Urbino	3	1	159	43.74°N	12.63°E
Varese	1	1	526	45.83°N	8.83°E
Vasto	3	1	112	42.12°N	14.70°E
Venice	2	1	344	45.43°N	12.33°E
Vicenza	3	1	377	45.55°N	11.54°E
Vignanello	3	1	91	42.38°N	12.28°E
Villa Santa Lucia degli Abruzzi	6	2	32	42.32°N	13.77°E
Viterbo	3	2	107	42.42°N	12.09°E
Zurich	2	1	671	47.38°N	8.54°E

MM: Mercalli Modified Intensity Scale

Resp. Response

Population and Intensity NEIC-USGS



M 6.3, CENTRAL ITALY

Origin Time: Mon 2009-04-06 01:32:42 UTC

Location: 42.42°N 13.39°E Depth: 10 km

PAGER Version 3

Created: 11 hrs, 14 mins after earthquake

Estimated Population Exposed to Earthquake Shaking

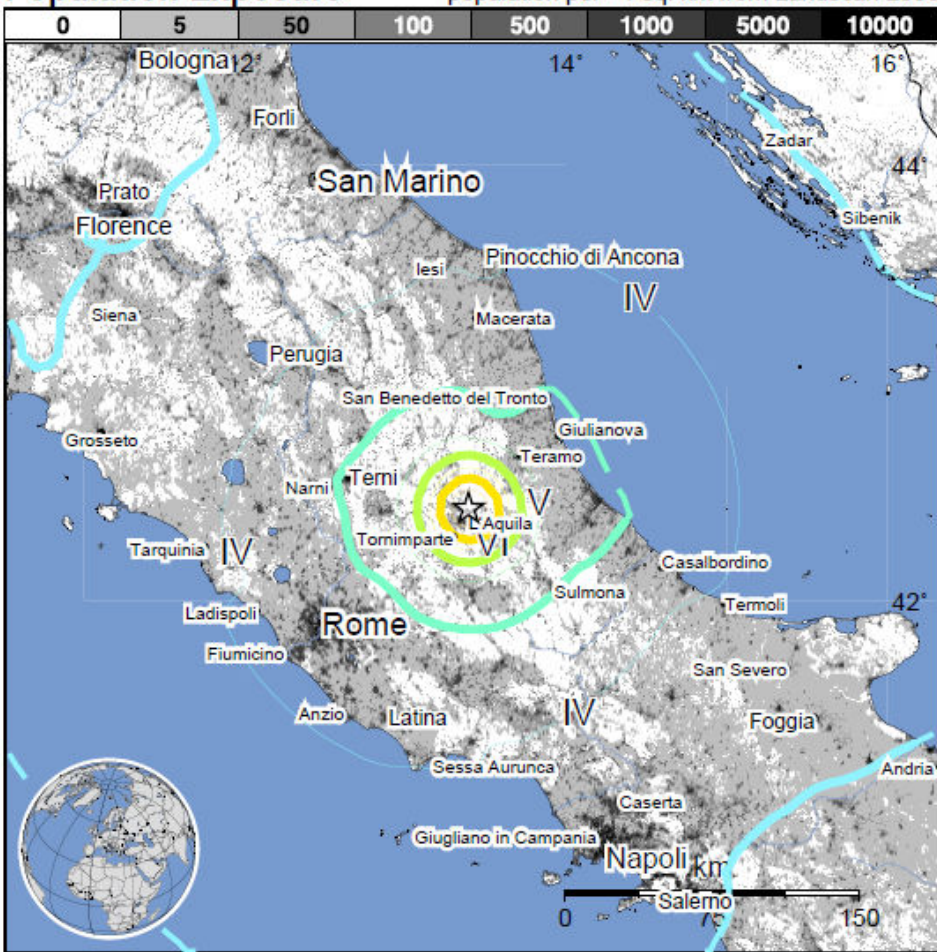
ESTIMATED POPULATION EXPOSURE (k = x1000)		--*	3,422k*	16,482k	1,323k	34k	28k	68k	0	0
ESTIMATED MODIFIED MERCALLI INTENSITY		I	II-III	IV	V	VI	VII	VIII	IX	X+
PERCEIVED SHAKING		Not felt	Weak	Light	Moderate	Strong	Very strong	Severe	Violent	Extreme
POTENTIAL DAMAGE	Resistant Structures	none	none	none	V. Light	Light	Moderate	Moderate/Heavy	Heavy	V. Heavy
	Vulnerable Structures	none	none	none	Light	Moderate	Moderate/Heavy	Heavy	V. Heavy	V. Heavy

*Estimated exposure only includes population within the map area.

Population Exposure

population per ~1 sq. km from Landscan 2006

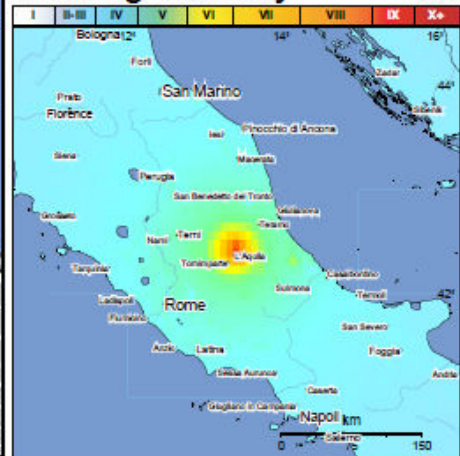
Selected City Exposure



MMI City	Population
VIII L'Aquila	68k
VIII Pizzoli	3k
VII Scoppito	2k
VII Ocre	1k
VII Cagnano Amiterno	1k
IV Rome	2,563k
IV Napoli	988k
IV San Marino	4k
IV Prato	172k
III Bologna	371k
III Florence	371k

bold cities appear on map (k = x1000)

Shaking Intensity



Overall, the population in this region resides in structures that are a mix of vulnerable and earthquake resistant construction. A magnitude 6.0 earthquake occurred near the Umbria-Marche, Italy, region 88 km northwest of this earthquake on September 26, 1997 (UTC), with estimated population exposures of 10,000 at intensity VIII and 112,000 at intensity VII, resulting in an estimated 11 fatalities. A magnitude 6.9 earthquake occurred near the Irpinia, Italy, region 242 km southeast of the location of this earthquake on November 23, 1980 (UTC), with estimated population exposures of 37,000 at intensity IX or greater and 252,000 at intensity VIII, resulting in an estimated 2,483 fatalities. Recent earthquakes in this area have caused landslides that may have contributed to losses.

This information has been reviewed by a seismologist.

<http://earthquake.usgs.gov/pager>

Event ID: us2009caf



Fuente: <http://www.emsc-csem.org/index.php?page=home>

Mw 6.3 Central Italy on April 06th, 2009 at 01:32 UTC

An earthquake of magnitude Mw 6.3 occurred on 06/04/2009 in central Italy, at 7 km North-West of L'Aquila (Abruzzo Region) at 01:32 UTC (03:32 local time).

59 km E Terni (pop 110,412)

7 km NW L'aquila (pop 72,279)

6 km S Pizzoli (pop 3,378)

More information: <http://www.emsc-csem.org/index.php?page=home>

Earthquake Information

Summary:

Magnitude Mw 6.3

Region CENTRAL ITALY

Abrutian Apennine

Date time 2009-04-06 at 01:32:41.4 UTC

Location 42.38 N ; 13.32 E

Depth 2 km

Distances 59 km E Terni (pop 110,412 ; local time 03:32 2009-04-06)

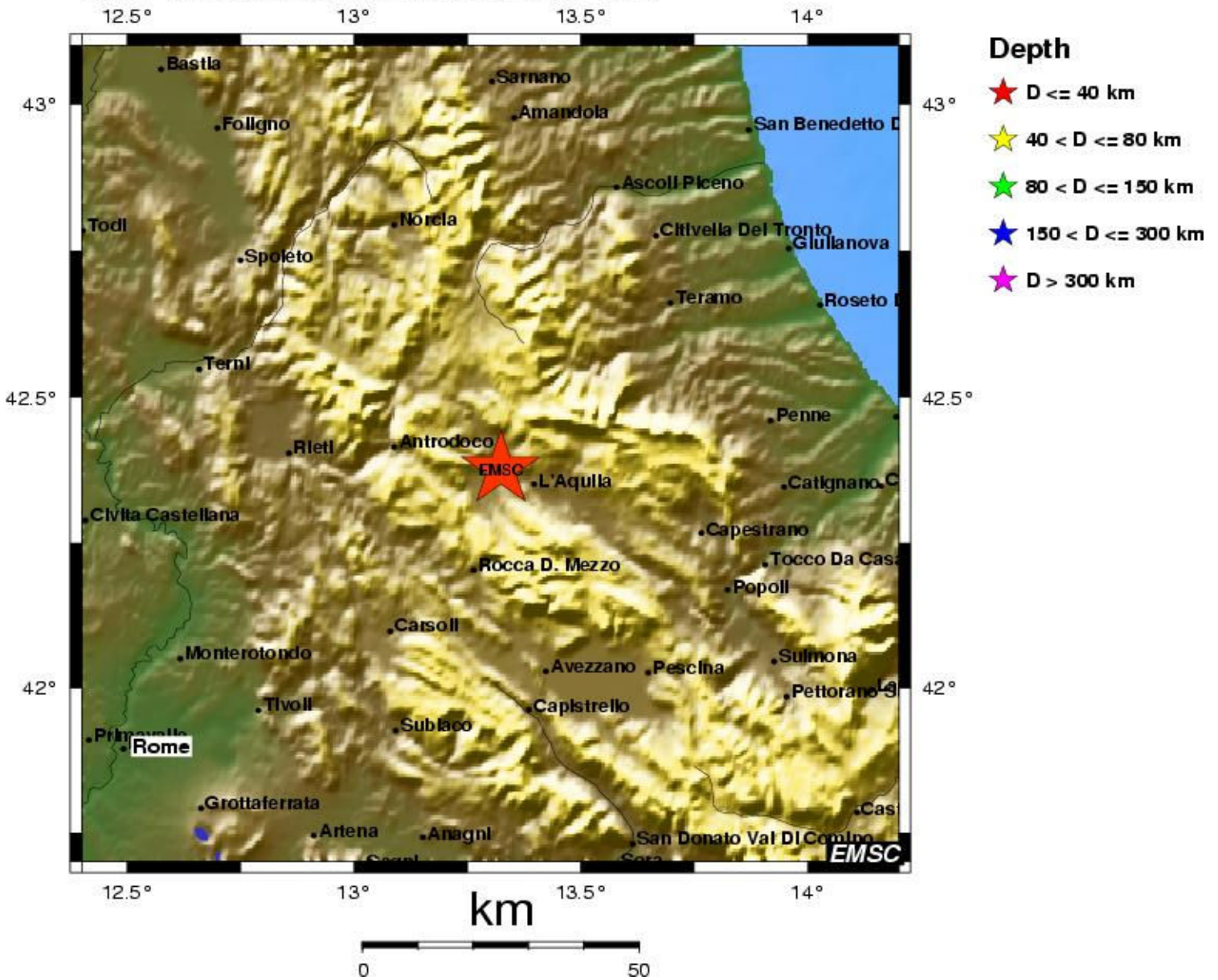
7 km NW L'aquila (pop 72,279 ; local time 03:32 2009-04-06)

6 km S Pizzoli (pop 3,378 ; local time 03:32 2009-04-06)

Epicenter Location

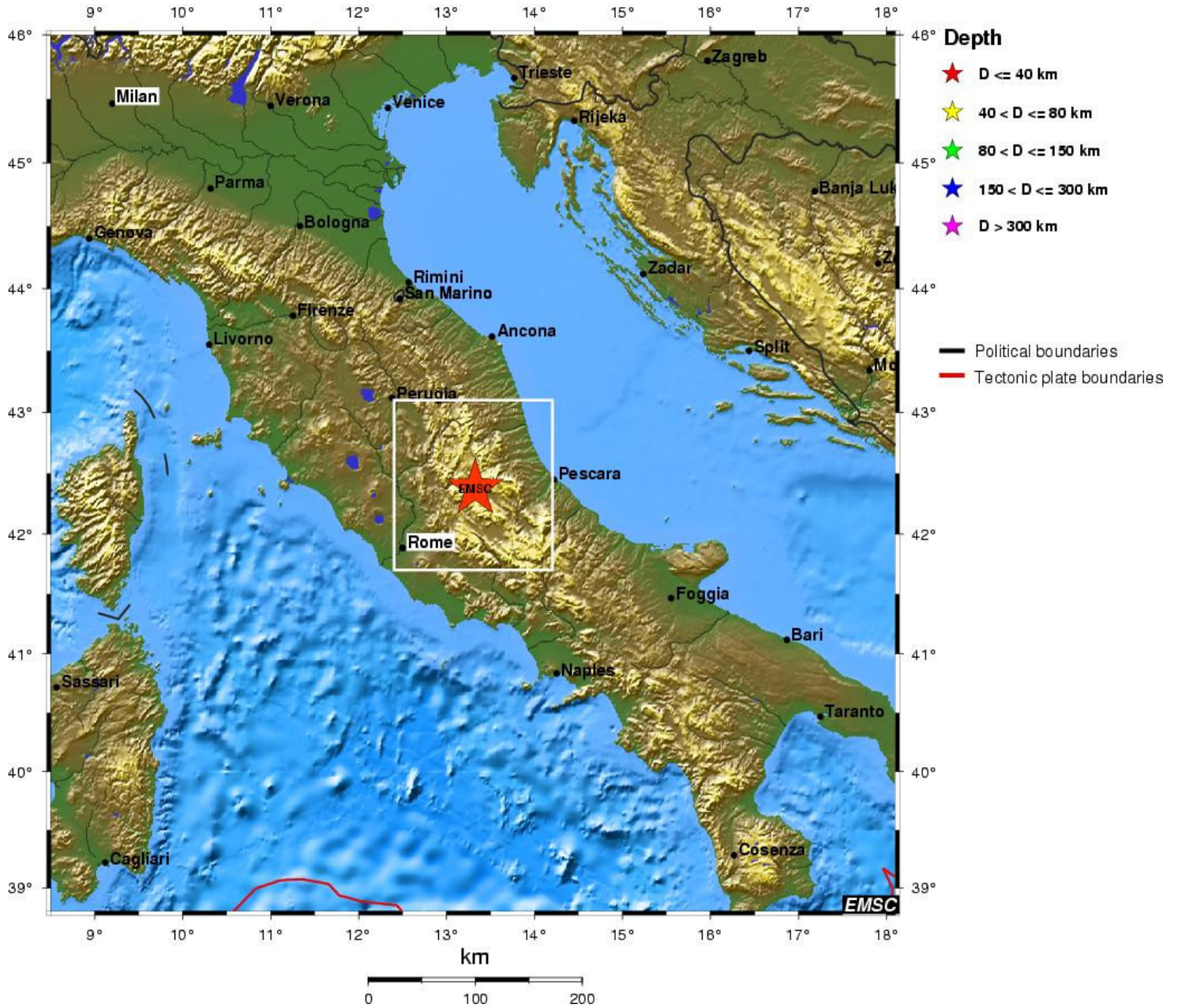
Mw 6.3 2009/04/06 - 01:32:41 GMT Lat 42.38 Lon 13.32 Depth 2.0 km

59 km E Terni (pop 110,412 ; local time 03:32 2009-04-06)
 7 km NW L'Aquila (pop 72,279 ; local time 03:32 2009-04-06)
 6 km S Pizzoli (pop 3,378 ; local time 03:32 2009-04-06)

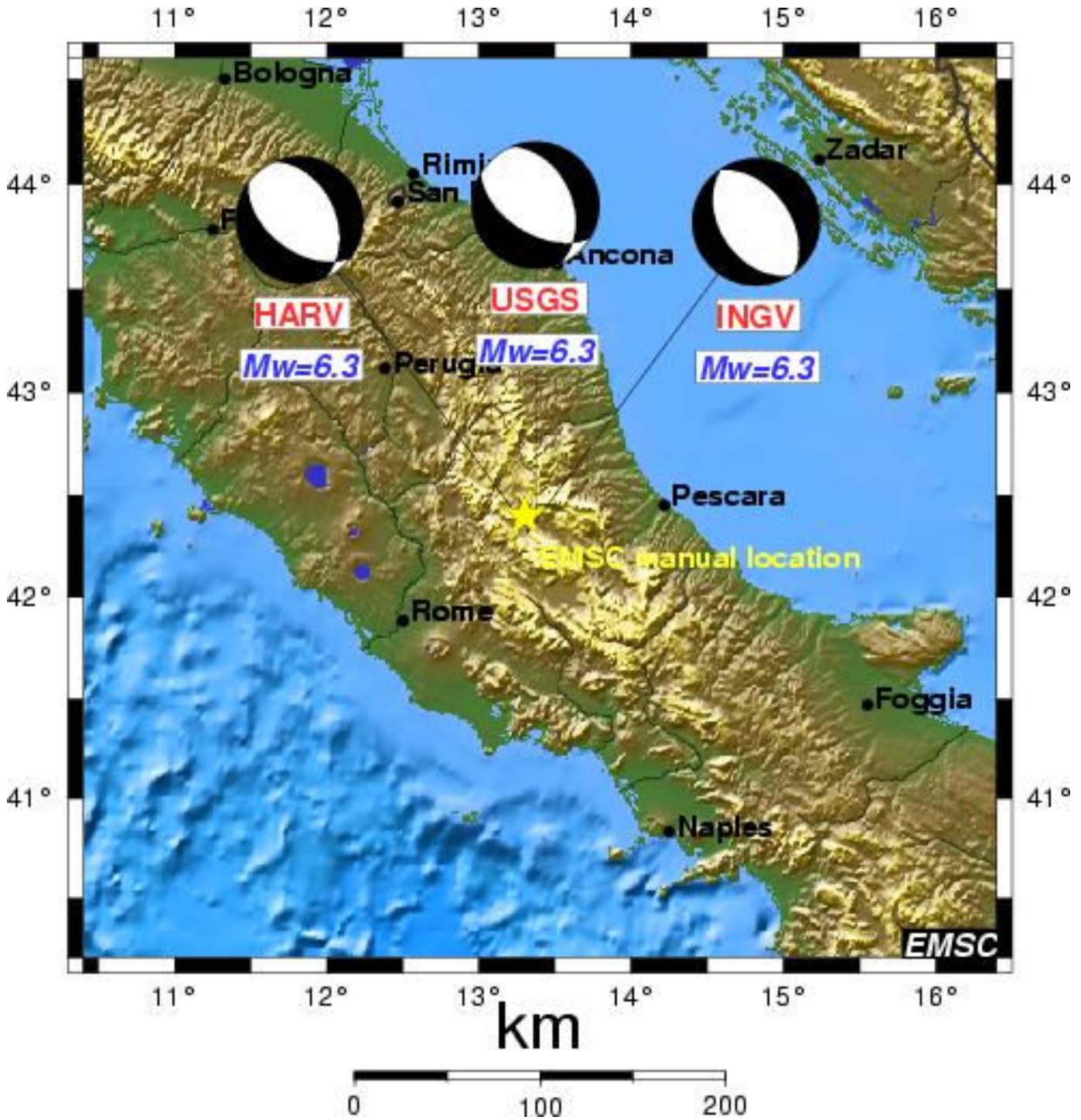


Mw 6.3 2009/04/06 - 01:32:41 GMT Lat 42.38 Lon 13.32 Depth 2.0 km

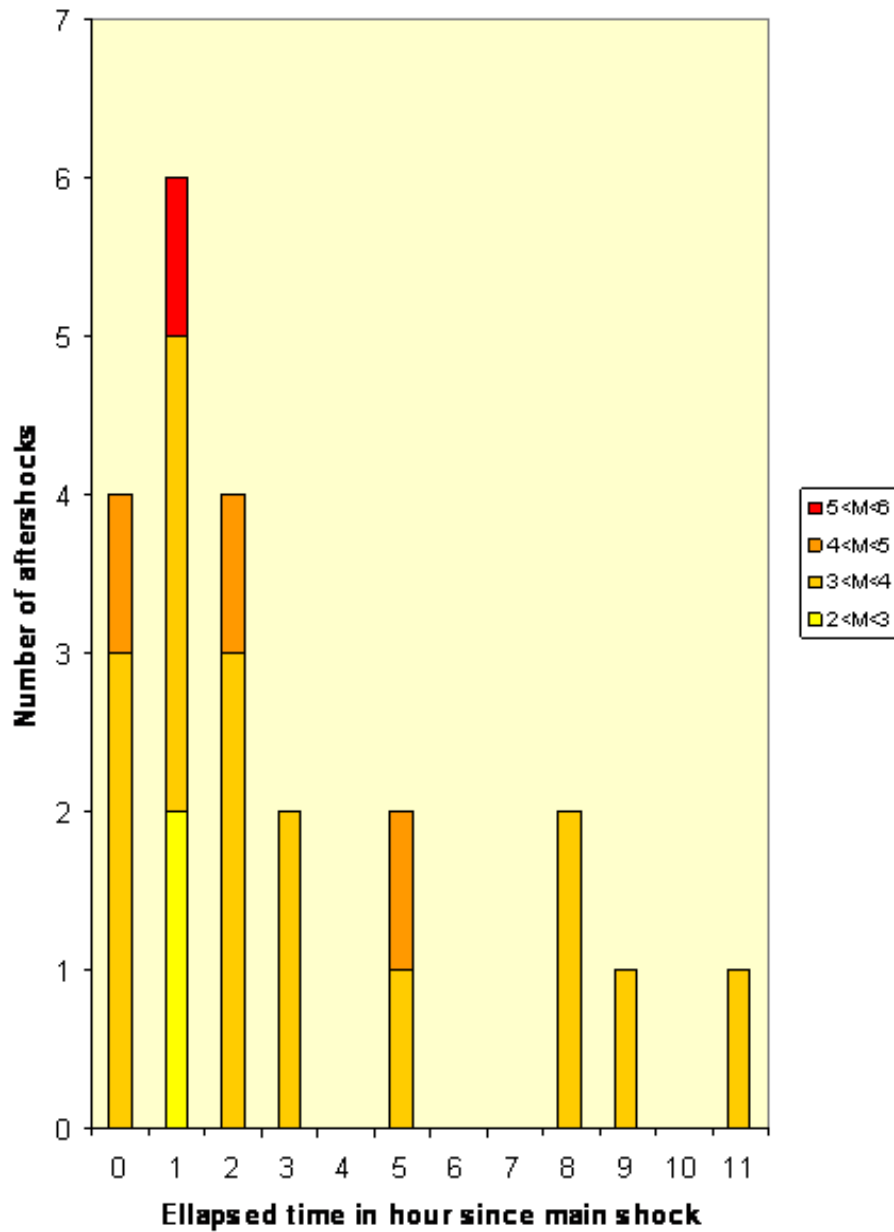
59 km E Terni (pop 110,412 ; local time 03:32 2009-04-06)
 7 km NW L'aquila (pop 72,279 ; local time 03:32 2009-04-06)
 6 km S Pizzoli (pop 3,378 ; local time 03:32 2009-04-06)



Moment Tensors



Aftershocks Distribution





News Report

Monday 06th April, 12:00 UTC:

According to the Italian officials, more than 50 people died, and 50,000 were left homeless. The epicenter was in L'Aquila (Abruzzo Region), a medieval fortress hill town, where a number of people were trapped under rubble. Source : ANSA : <http://www.ansa.it>

Enel SpA cut electricity supply to 15,000 users as a “security measure” after the quake, a company spokeswoman said.

Prime Minister Silvio Berlusconi [declared a state of emergency to speed aid delivery to the region](#). The Civil Protection Department, said between 10,000 and 15,000 buildings were damaged. Stadiums and sporting fields are being readied to house the homeless.

Regional Seismicity

Last major quakes in Italy:

Oct. 31, 2002: 5.9-magnitude temblor that struck the south-central Molise region, killing 28 people, including 27 children who died when their school collapsed.

Sep. 26, 1997: 6.4-magnitude quake in Umbria (central Italy) near Assisi, killing 11 people

Nov. 23, 1980: 6.5-magnitude earthquake in Eboli, about 80km south of Naples, killing 2,700 people

May 6, 1976: 6.5-magnitude in North East Italy (Friuli), killing 1,000 people

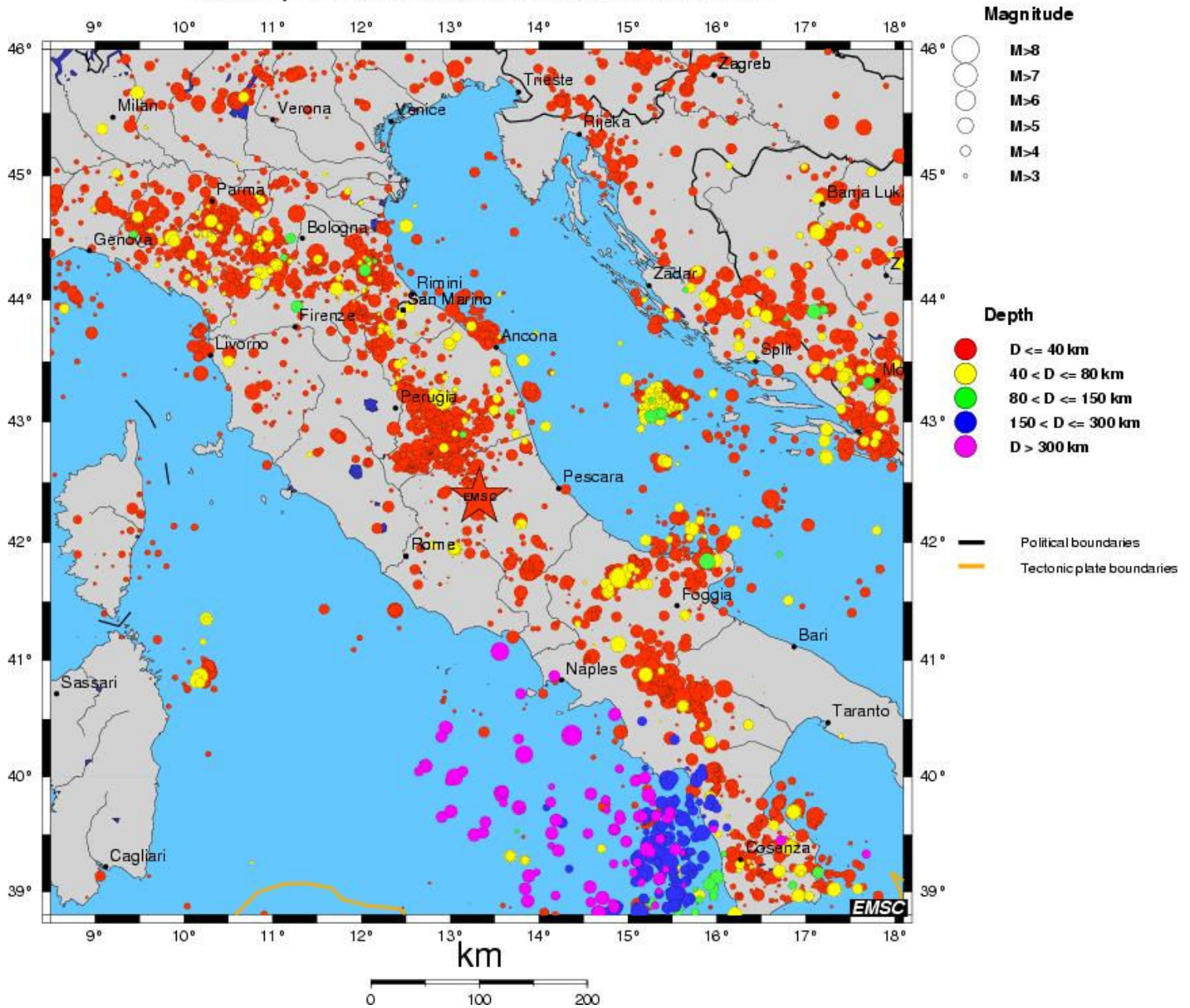
Regional Seismicity

EMSC manual location

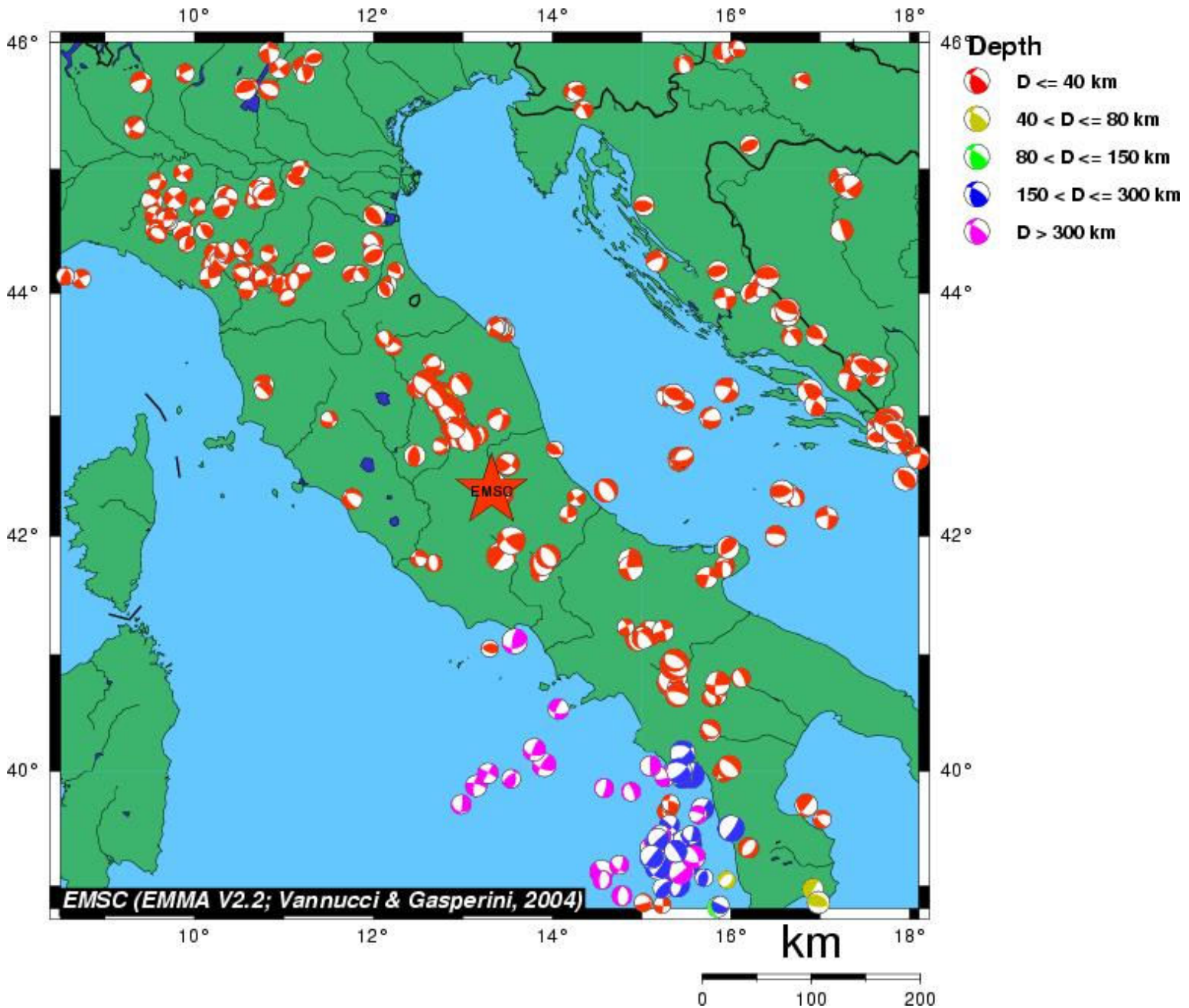
Mw 6.3 2009/04/06 - 01:32:41 GMT

Lat 42.38 Lon 13.32 Depth 2.0

Seismicity ISC+EMSC: From 1964 to 06/04/2009 01:00 UTC



Regional Moment Tensors



Damages in L'Aquila (Italy) 7 Km from the epicenter.

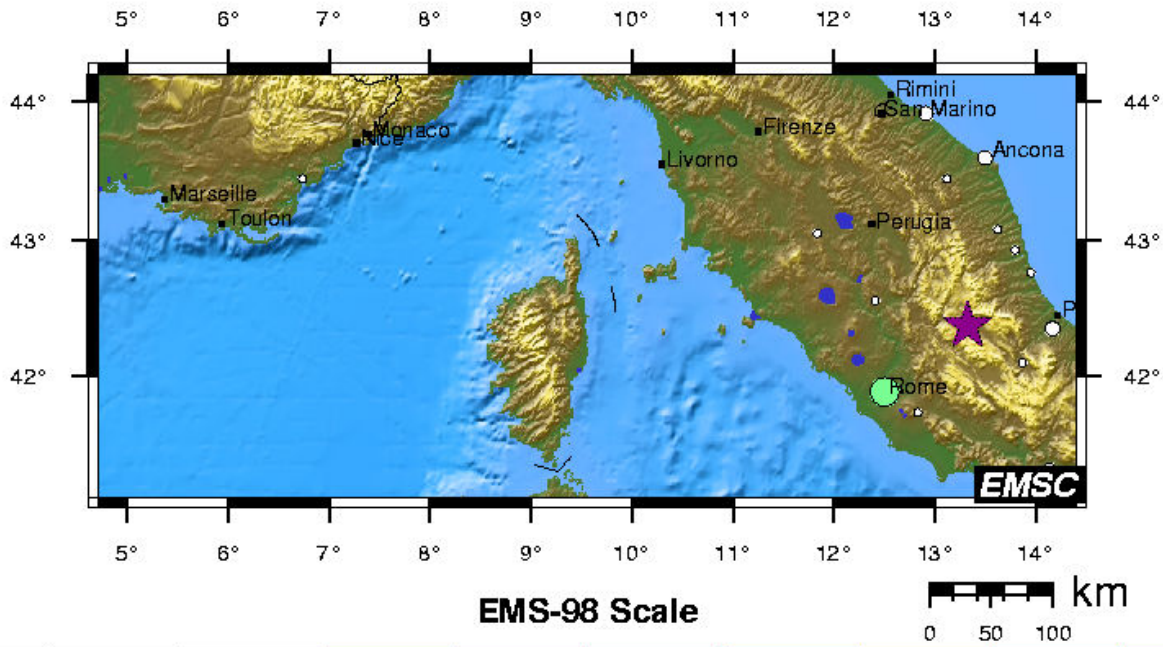


Intensity map (generated with the results of the online questionnaire)

European Intensity Scale (EIS)

Mw 6.3 2009/04/06 01:32:41.41 UTC 42.38; 13.32
CENTRAL ITALY depth = 2 km

Intensity map



Intensity	F	I	II	III	IV	V	VI	VII	VIII
Effects	Felt	Not felt	Scarcely felt	Weak	Largely observed	Strong	Slightly damaging	Damaging	Heavily damaging

Map last updated the 2009-04-06 13:52:21 UTC.	29 responses in 14 areas.
Intensity calculation algorithm : <i>Automatic assessment of EMS-98 intensities by RMW Musson (BGS)</i>	
Location method : Per nearest city	
Intensity calculated in communities with at least 5 questionnaires.	

○ 1 form	○ ≤ 5 forms	○ ≤ 10 forms
○ ≤ 20 forms	○ ≤ 30 forms	○ > 30 forms

Related Seismicity



Date & Time	Latitude	Longitude	Depth	Mag.	Region name
UTC	degrees	degrees	km		
2009-04-06 13:14:04.0	42.24 N	13.49 E	10	ML 3.2	CENTRAL ITALY
2009-04-06 10:36:18.0	42.34 N	13.40 E	10	ML 3.5	CENTRAL ITALY
2009-04-06 10:12:36.6	42.31 N	13.32 E	2	ML 3.5	CENTRAL ITALY
2009-04-06 09:59:29.0	42.32 N	13.38 E	10	ML 3.1	CENTRAL ITALY
2009-04-06 07:17:16.1	42.47 N	13.40 E	30	mb 4.4	CENTRAL ITALY
2009-04-06 06:48:15.0	42.30 N	13.38 E	8	ML 3.0	CENTRAL ITALY
2009-04-06 05:15:28.0	42.48 N	13.36 E	4	ML 3.1	CENTRAL ITALY
2009-04-06 04:47:54.9	42.33 N	13.29 E	2	ML 3.9	CENTRAL ITALY
2009-04-06 04:16:40.0	42.39 N	13.32 E	10	ML 3.2	CENTRAL ITALY
2009-04-06 04:08:45.0	42.38 N	13.36 E	10	ML 3.0	CENTRAL ITALY
2009-04-06 03:56:48.1	42.38 N	13.34 E	10	mb 4.5	CENTRAL ITALY
2009-04-06 03:43:16.0	42.33 N	13.37 E	9	ML 3.1	CENTRAL ITALY
2009-04-06 03:33:40.5	44.28 N	11.97 E	40	ML 3.4	NORTHERN ITALY
2009-04-06 03:30:59.0	42.34 N	13.39 E	9	ML 2.8	CENTRAL ITALY
2009-04-06 03:23:10.0	42.33 N	13.33 E	9	ML 2.8	CENTRAL ITALY
2009-04-06 03:17:04.0	42.37 N	13.37 E	9	ML 3.2	CENTRAL ITALY
2009-04-06 02:55:38.9	42.58 N	13.61 E	2	ML 3.3	CENTRAL ITALY
2009-04-06 02:44:32.0	42.30 N	13.35 E	10	ML 3.2	CENTRAL ITALY
2009-04-06 02:37:05.2	42.40 N	13.31 E	2	Mw 5.1	CENTRAL ITALY
2009-04-06 02:31:33.0	42.41 N	13.39 E	8	ML 3.4	CENTRAL ITALY
2009-04-06 02:27:48.2	42.37 N	13.23 E	2	mb 4.3	CENTRAL ITALY
2009-04-06 02:25:45.0	42.43 N	13.36 E	13	ML 3.3	CENTRAL ITALY

2009-04-06 02:14:10.0	42.32	N	13.46	E	5	ML	3.3	CENTRAL ITALY
2009-04-06 01:32:41.4	42.38	N	13.32	E	2	Mw	6.3	CENTRAL ITALY
2009-04-05 22:39:42.8	42.33	N	13.34	E	2	ML	3.5	CENTRAL ITALY
2009-04-05 21:31:22.9	44.30	N	12.01	E	20	ML	2.5	NORTHERN ITALY
2009-04-05 20:48:56.4	42.36	N	13.37	E	2	ML	4.0	CENTRAL ITALY
2009-04-05 20:20:52.4	44.33	N	11.98	E	10	Mw	4.8	NORTHERN ITALY