



*Presidency of the Council of Ministers*  
Civil Protection Department



## Recovery Status Report from Italy EQ of April 2009

Geneva, June 17h, 2009



### IRP/ILO SPECIAL EVENT

Integrating Social, Economic, and Environmental Concerns in Post-disaster Recovery  
Promoting Effective Build-Back Better Approaches through IRP

*Dr. Guido Bertolaso*



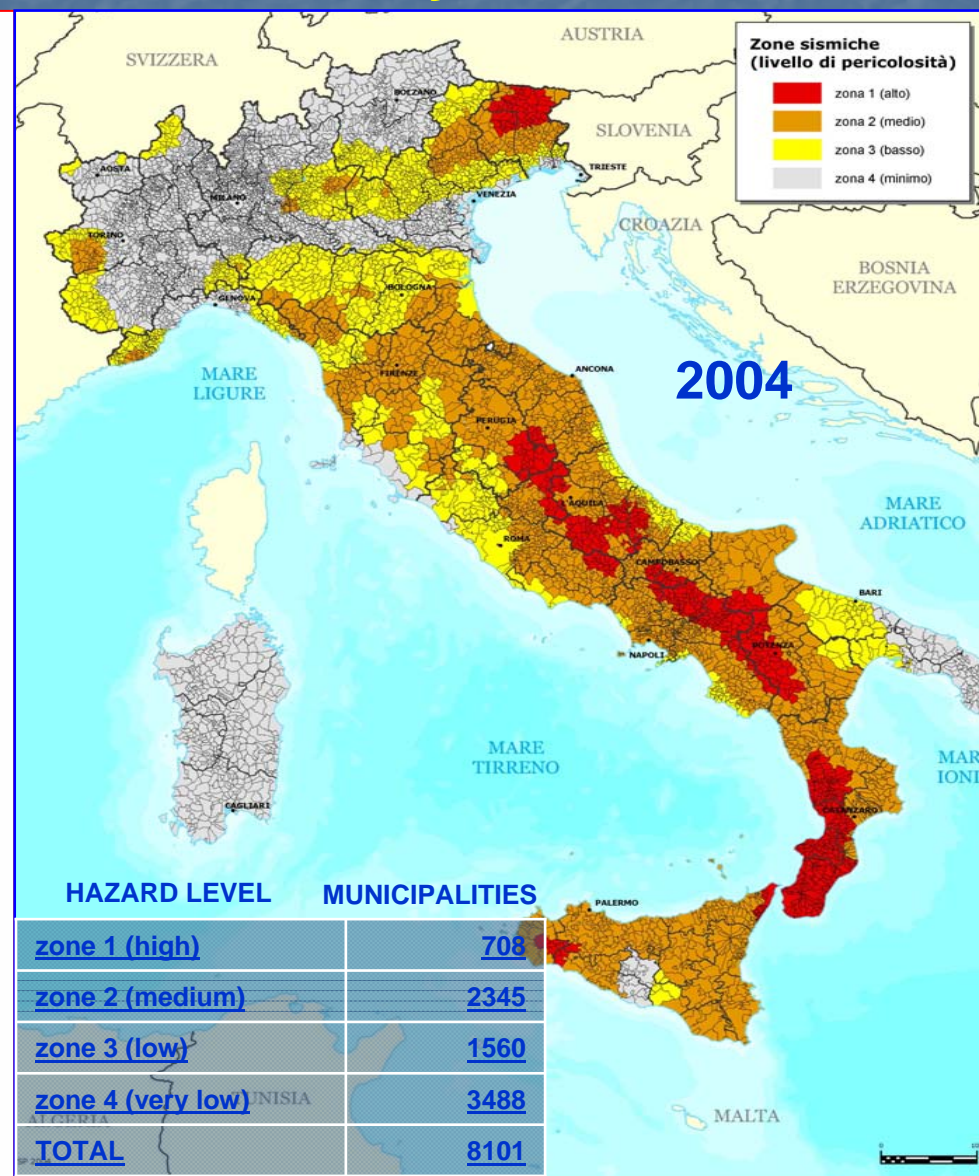
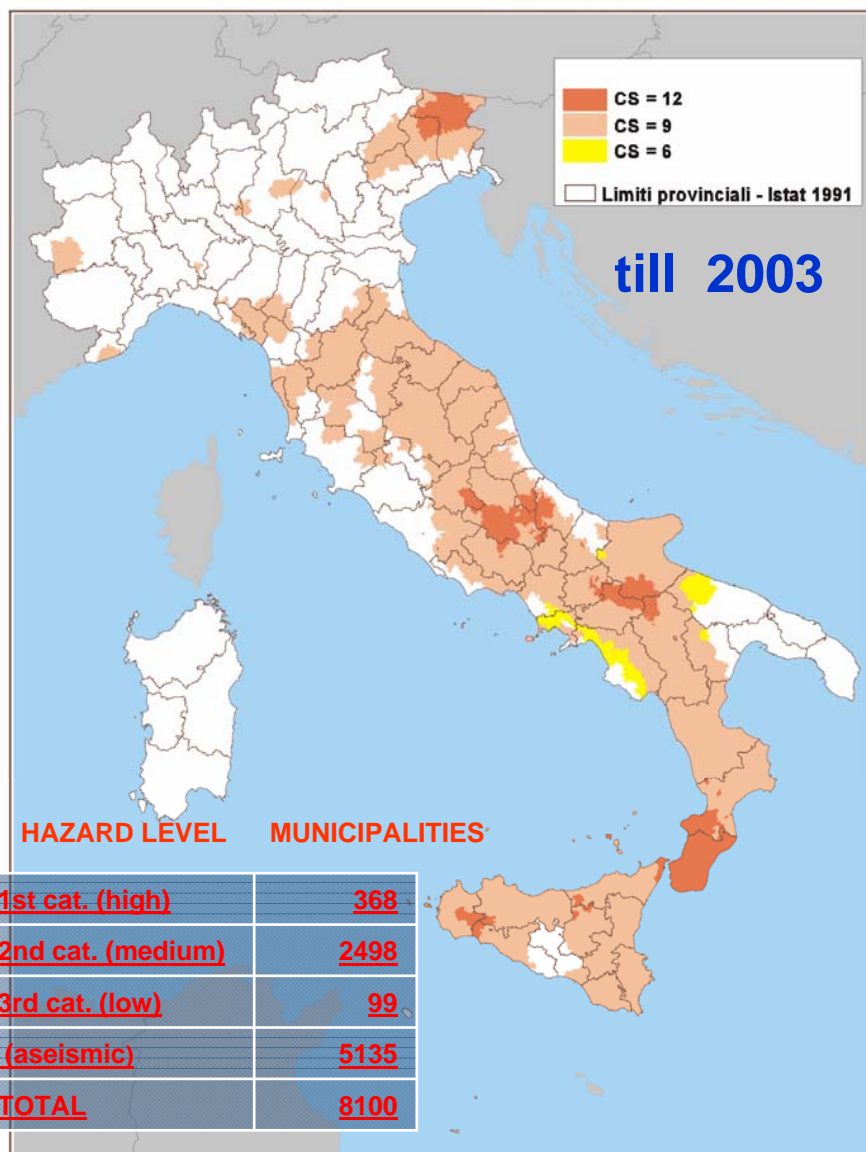


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## Map of seismic areas in Italy







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**6 April 2009 - h. 3.32 a.m.**

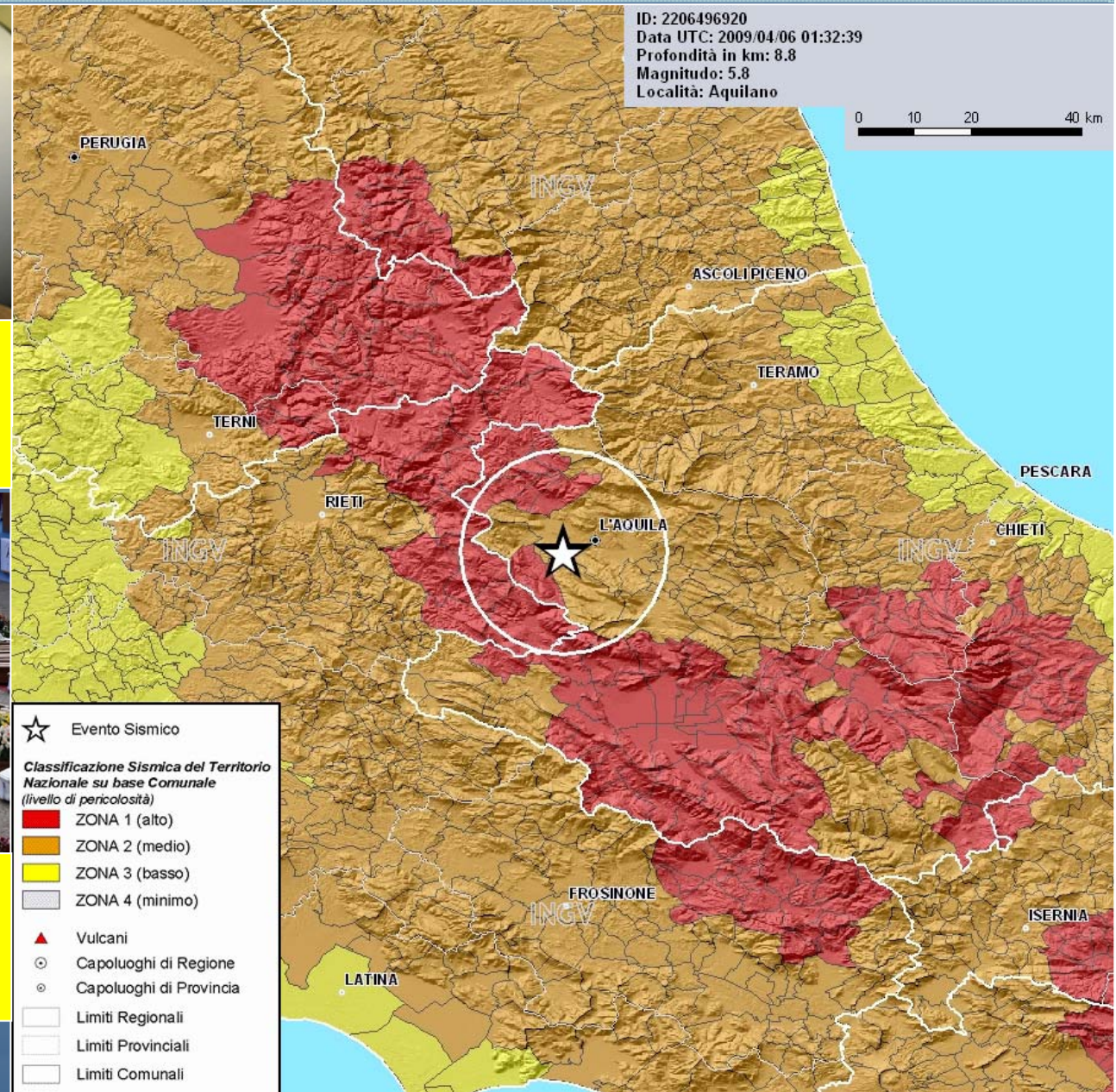
**5.8 degrees - Richter scale**



**Fatalities: 300**

**Injured: 1.500**

**Displaced: 65.000**







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## Coordination

### Operational Committee

**April 6, 2009**

**4.15: Crisis Unit of the Department of Civil Protection**

**4.40: DPC teams departure**

**4.40: Operational Committee of Civil Protection meeting**

**7.00: State of Emergency**

**9:00: Organisation of the Direction of Command and Control on site**







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**First Response**  
**Within the first 12 hours**





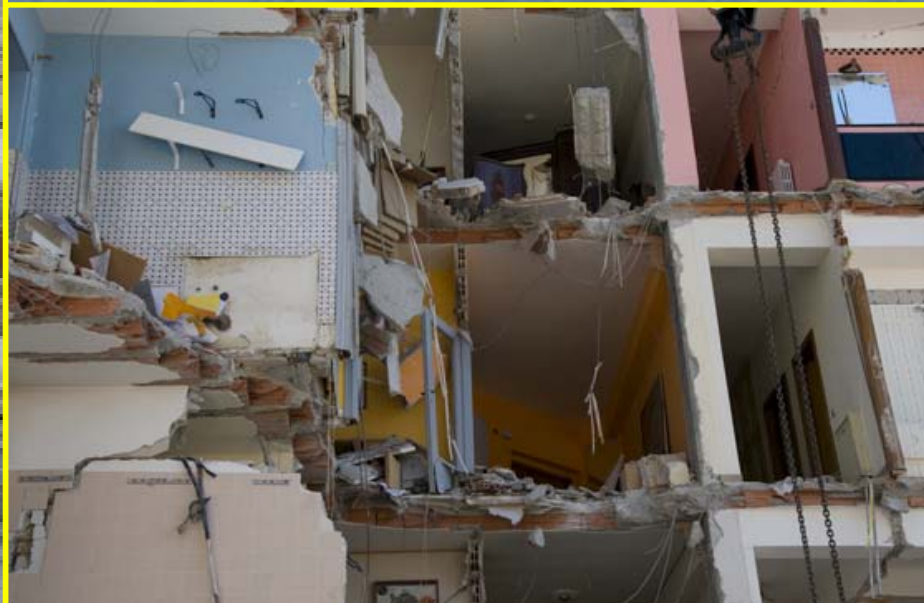


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**Damage to buildings and properties**







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**DAY ONE: after 24 hours**

**Coppito base of operations**

**Di.Coma.C.**

**Fire fighters base camp**







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**DAY ONE: medical evacuation**







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### San Salvatore Field Hospital







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### Search and rescue



Fire fighters

24 hours

48 hours

2010

2400

Armed forces

1520

1650

Police

1500

2000

Red Cross

800

800

Volunteers

2000

4300

K9

108

134

8 Regions+1  
Autonomous  
Province

14 Regions+1  
Autonomous  
Province



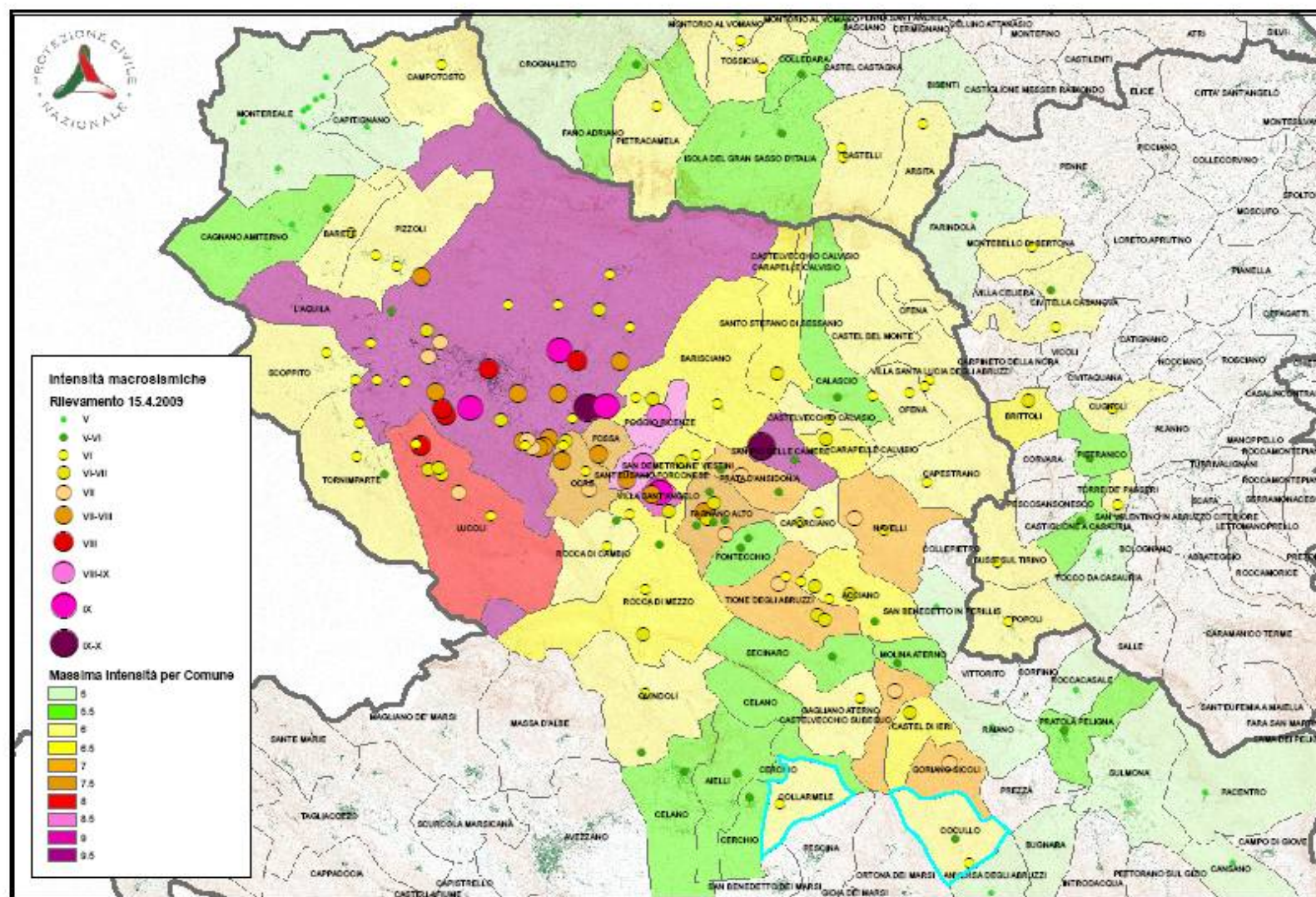


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### Areas affected by the earthquake







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MCS  $\geq$  6

49 municipalities

(DPCM n. 3 16/04/2009)







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**NATIONAL OPERATIONAL COMMITTEE**

**OPERATIONAL COMMITTEE ON SITE**

**Commissione  
Grandi Rischi**

**DICOMAC**

**COM 1**  
L'Aquila

**COM 2**  
San Demetrio

**COM 3**  
Pizzoli

**COM 4**  
Pianola

**COM 5**  
Paganica

**COM 6**  
Navelli

**COM 7**  
Sulmona

**COM 8**  
Montorio al  
Vomano

**1**  
MUNICIPALITY

**12**  
MUNICIPALITIES

**9**  
MUNICIPALITIES

**8**  
MUNICIPALITIES

**10**  
SITES

**14**  
MUNICIPALITIES

**20**  
MUNICIPALITIES

**15**  
MUNICIPALITIES





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### DAY TWO



### 48 HOURS LATER

Camps: 30  
Tents: 2962 (about 18.000 seats)  
People assisted: 28.000 (10.000 in hotels)  
Field kitchens: 24  
Advanced medical posts: 13  
1 field hospital



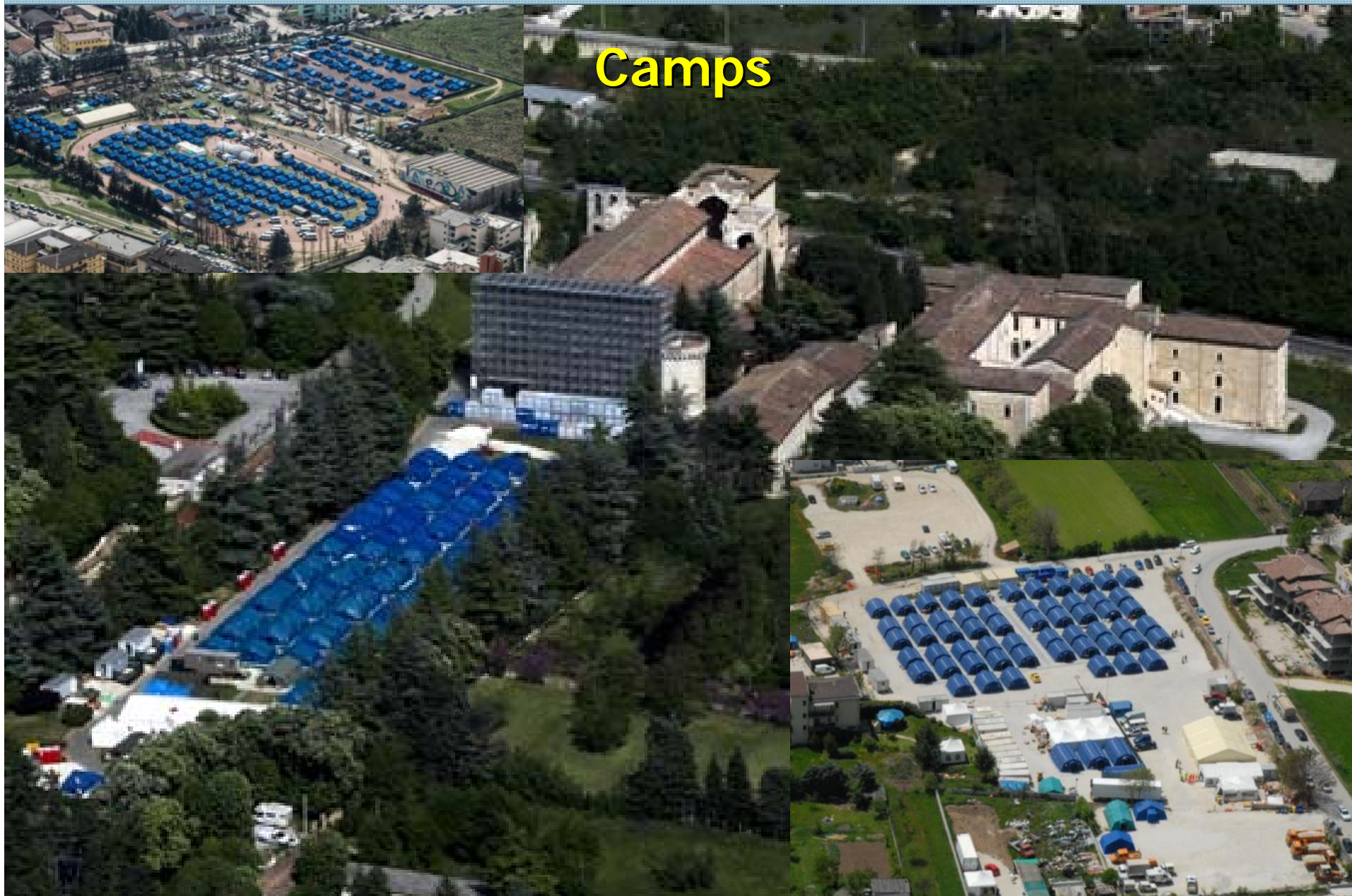




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**Camps**







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### Public utilities





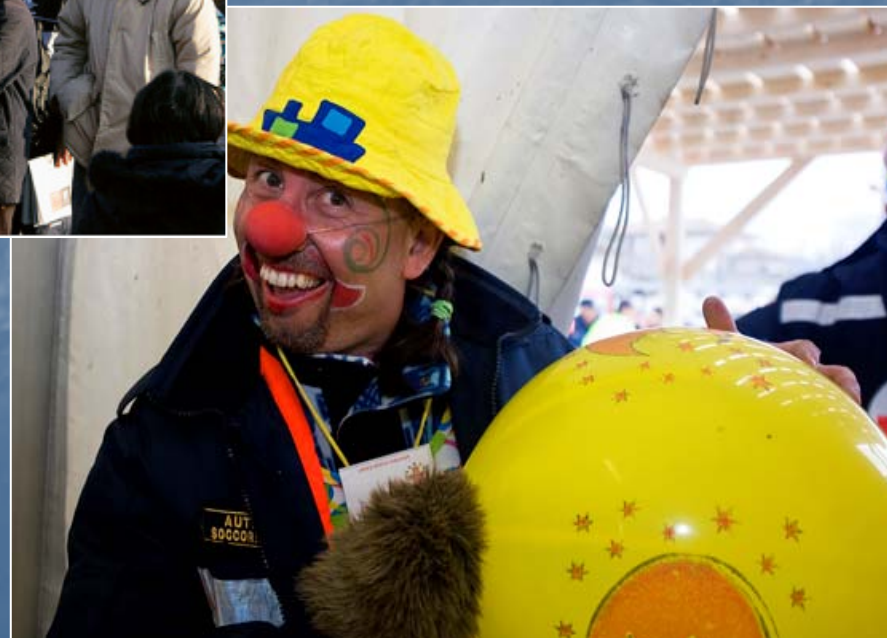


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**A new beginning for school activities...**







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## Damage to cultural heritage







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## Damage assessment

Number of inspections: 55.206

Last update: 08:00 June 16th, 2009

BUILDING DAMAGE ASSESSMENT		
Code	Description	Percentage
A	USABLE	52,7%
B	UNUSABLE AFTER EMERGENCY MEASURE	13,6%
C	PARTIALLY UNUSABLE	2,8%
D	BUILDING TEMPORARELY UNUSABLE (TO BE RE-INSPECTED)	0,9%
E	BUILDING UNUSABLE	25,0%
F	BUILDING UNUSABLE DUE TO EXTERNAL RISK	4,9%



### DAMAGE ASSESSMENT % FOR BUILDING USE TYPOLOGY

Code	PRIVATE	PUBLIC	HOSPITAL	BARRACS	SCHOOLS	PRODUCTIVE ACTIVITIES
A	52,6	53.6	43.4	68.4	48.7	58.0
B	13.2	16.5	34.0	22.2	28.9	18.5
C	2.7	3.9	11.3	2.9	2.2	4.0
D	0.9	1.3	1.9		2.6	1.1
E	25.5	21.2	9.4	5.3	16.1	14.3
F	5.1	3.4		1.2	1.5	4.1





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### EUROPEAN MECHANISM TEAM



deployed to support the Italian  
experts in charge of damage  
assessment:

8 experts and 1 MIC liaison officer





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*Parlamento Italiano*



[Indice decreti-legge](#)

Decreto-legge 28 aprile 2009, n. 39

**"Interventi urgenti in favore delle popolazioni colpite dagli eventi sismici nella regione Abruzzo nel mese di aprile 2009 e ulteriori interventi urgenti di protezione civile. (09G0047)"**

pubblicato nella *Gazzetta Ufficiale* n. 97 del 28 aprile 2009  
(Rettifica G.U. n. 102 del 5 maggio 2009)

## **NEXT MEASURES**

- Facilitate people return to the usable houses.
- Apply the Decree n. 39 April 28, 2009, which concerns:
  - Contributions for public and private rebuilding and repair;
  - Special payments for families and companies
  - Expiry suspensions on loans and legal proceedings
  - Temporary houses plan





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complessi antisismici sostenibili ed ecocompatibili

**c.a.s.e.**

### MAIN AIMS:

- Provisional accommodation with high standards for 12.000 people within 2009
- Alternative use of these houses after the rebuilding



Centro Europeo di Formazione e Ricerca in  
Ingegneria Sismica (EU CENTRE)



Presidenza del Consiglio dei Ministri  
Dipartimento della Protezione Civile





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## **Housing Modules C.A.S.E. rendering - preliminary project**



**L'Aquila**  
Maggio 2009





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## **Housing Modules C.A.S.E. Rendering – preliminary project**



**L'Aquila  
Maggio 2009**





## **International Commission on Earthquake Forecasting for Civil Protection**

### ***Mandate:***

1. Report on the current state of knowledge of the short term prediction and forecasting of tectonic earthquakes.
2. Indicate guidelines for utilization of possible forerunners of large earthquakes to drive civil protection actions, including the use of probabilistic seismic hazard analysis in the wake of a large Earthquake.





## International Commission on Earthquake Forecasting for Civil Protection

**President: *Tom Jordan***

Director of the Southern California Earthquake Center, U.S.A.



The Commission's members are seismologists expert on earthquake source and forecasting from:

- China – Yun Tai Chen
- France – Raul Madariaga
- Germany – Jochen Zschau
- Greece - Gerassimos Papadopoulos
- Italy – Paolo Gasparini, Warner Marzocchi
- Japan – Kashun Yamaoka
- U.K. – Ian Main
- Russia – Guennadi A. Sobolev







## **International Commission on Earthquake Forecasting for Civil Protection**

The members include:

- ❖ The Chairman of the Commission for Earthquake Prediction of the Seismological Society of Japan
- ❖ The present and past Chairmen of the Commission on Earthquake Prediction of the European Seismological Commission
- ❖ The coordinator of the famous debate on Earthquake Prediction organised by “Nature” in 1999







## International Commission on Earthquake Forecasting for Civil Protection

*Consensus on the following issues emerged in the first meetings:*

- Deterministic prediction of earthquakes is not possible at the present time
- Some probabilistic forecast may be possible. However, to be usable for Civil Protection Action probability values and related uncertainties must be assessed







## **International Commission on Earthquake Forecasting for Civil Protection**

The work of the Commission will be mostly focussed on the guidelines. The expected outcome will concern:

- ✓ The content of information provided by seismologists to Civil Protection;
- ✓ The way probabilistic forecasting and related uncertainties should be issued;
- ✓ How Civil Protection can use timely issued probabilistic forecasts and early warning





## International Commission on Earthquake Forecasting for Civil Protection

### *Operative schedule:*

- Kick off Meeting: L'Aquila, May 12 and 13, 2009;
- Second meeting with Videoconference held in Potsdam on June 5, 2009;

The final report answering the mandate is due by early October, 2009.







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