



Eidgenössische Technische Hochschule Zürich
Swiss Federal Institute of Technology Zurich

Institute of Geophysics

ETH Hönggerberg (HPP)
CH-8093 Zürich, Switzerland

Prof. Dr. Domenico Giardini

Chair of Seismology and Geodynamics
Director, Swiss Seismological Service

Tel.: + 41 1 633 26 10 / 2605 (secr).

Fax: + 41 1 633 10 65

giardini@seismo.ifg.ethz.ch

www.geophys.ethz.ch

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Seismic Hazard Map of Italy Ordinanza PCM 20 marzo 2003, n.3274

Final Evaluation of the Experts Panel

Preamble

Following the Ordinanza PCM 20 marzo 2003, n. 3274, a new map of seismic hazard of Italy has been produced by a national Working Group (WG) under the coordination of Dr. M. Stucchi at INGV. An Experts Panel was nominated by the Chairman of the Seismic Section of the Commissione Grandi Rischi (CGR), Prof. G.-M. Calvi, with the goal of verifying the adherence of the seismic hazard map to the criteria expressed in the Ordinanza and its Documento Esplicativo.

The Experts Panel is composed by J. Bommer, Imperial College London, M. Garcia-Fernandez, ICTJA-CSIS Barcelona, D. Giardini (spokesperson), ETH Zurich, F. Barberi Università di Roma 3, P. Gasparini, Università di Napoli Federico II, P.E. Pinto, Università di Roma La Sapienza, D. Szejko, OGS Trieste.

Activities of the Experts Panel

The activities of the Experts Panel developed since Nov 14, 2003, when the first hazard map and accompanying report were submitted by the WG. These activities included: Panel meetings, joint meetings with the Working Group and the Commissione Grandi Rischi, evaluation of reports, evaluation of hazard tests conducted by the WG, hazard tests conducted by the EP and elicitation of technical expertise by EP members, fruitful exchange of emails and reports between the WG and EP members.

The schedule of activities of the Experts Panel has been as following:

Nov 14, 2003	first hazard map and report submitted to the EP
Dec 1, 2003	first joint WG-EP workshop
Dec 1, 2003	presentation of the EP initial evaluations to the CGR
Dec 3, 2003	first EP evaluation report
Jan 22-23, 2004	joint WG-EP workshop to evaluate the revised seismic hazard map and report
Feb 5, 2004	second EP evaluation report
March 15, 2004	final hazard submitted to the EP
April 5, 2004	final joint WG-EP evaluation workshop
April 6, 2004	presentation of the EP final evaluations to the CGR
July 27, 2004	final EP evaluation report submitted to the Commissione Grandi Rischi

Final evaluation of the Experts Panel

The Experts Panel recognizes the hard work and successful efforts of the Working Group to produce a hazard model and map for Italy which meets and exceeds the specifications established by the Ordinanza PCM 20 marzo 2003, n.3274.

The Experts Panel recognizes the efforts of the Working Group to meet the suggestions and recommendations of the Panel, expressed in the evaluation documents of December 3, 2003, and February 5, 2004, and in particular the decision to adopt more rigorous procedures to assess the uncertainty associated to the hazard assessment.

The Experts Panel recognizes that the WG did every effort to elicit a comprehensive hazard model which captures the technical and scientific knowledge of the informed community. While acknowledging that not all possible alternative models have been introduced as separate branches in the logic-tree analysis, the Experts Panel is convinced that the computed uncertainties capture in a correct fashion the aleatoric and epistemic uncertainties of the specified PSHA approach.

The Experts Panel recognizes that the PSHA model has been produced for a reference return period of 475 years, according to the established specifications. The Panel notes that the adopted databases and approach make the model suitable to be upgraded for the assessment of hazard at longer return periods.

The Experts Panel recognizes that the efforts of the WG were geared to achieve the highest quality product within the restricted time-schedule established by the Ordinanza PCM 20 marzo 2003, n.3274, whereas a more extended hazard study for Italy is being planned for the coming years.

The Experts Panel recognizes that the new hazard model of Italy has a very high scientific and technical value and can be presently considered as the most advanced PSHA result of its class in Europe.

Integral part of the evaluation of the Experts Panel are the documents issued by the Experts Panel on December 3, 2003 and February 5, 2004. This report is released with unanimous consensus of the Experts Panel.

The Experts Panel:

D. Giardini, ETH Zürich, Spokesperson
F. Barberi, Università Roma III
J. Bommer, Imperial College, London
M. Garcia-Fernandez, ICTJA-CSIS, Barcelona
P. Gasparini, Università Federico II,
P.E. Pinto, Università La Sapienza, Roma
D. Skejko, OGS, Trieste

for the Experts Panel

