

DISS Working Group (2018). Database of Individual Seismogenic Sources (DISS), Version 3.2.1: A compilation of potential sources for earthquakes larger than M 5.5 in Italy and surrounding areas. <http://diss.rm.ingv.it/diss/>, © INGV 2018 - Istituto Nazionale di Geofisica e Vulcanologia  
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## Accompanying Notes

In April 2018 we released version 3.2.1 of the *Database of Individual Seismogenic Sources*. This version of the *Database* contributed to the new national seismic hazard model for Italy in the framework of MPS16 Project.

The 3.2.1 version of DISS features significant improvements with respect to the previous versions. As for the contents, in the new release:

- 1) incorporated a number of research results that have appeared in the scientific literature between June 2015 (when the previous version was released) and November 2017;
- 2) included two new *Individual Seismogenic Sources (ISS)*, both located in the Sila Massif of central Calabria: a) the ITIS143 *Ampollino Lake* source, that is held responsible for the 8 June 1638,  $M_w$  6.8, *Crotonese* earthquake, and b) the ITIS132 *Cecita Lake* source, that is currently not associated with any known historical earthquake;
- 3) removed the *Belice* ISS (ITIS014), formerly held responsible for the 15 January 1968 earthquake, because this source is inconsistent with the geometry of the new corresponding *Composite Seismogenic Sources (CSS)* (ITCS021);
- 4) included modified parameters for the geometry and kinematics of eight *ISS* (ITIS011, ITIS012, ITIS029, ITIS045, ITIS097, ITIS098, ITIS126, HRIS002);
- 5) included 24 new *CSS* describing the tectonic activity of: a) the Monferrato Arc, b) the Schio-Vicenza fault system, c) the Periadriatic Line, d) the central Adriatic Sea, e) the Lakes Faults in the Sila Massif, f) the Subduction Transform Edge Propagator (STEP) fault system of the Calabrian subduction zone, and g) the Belice area in western Sicily;
- 6) removed three *CSS* (ITCS054, ITCS095 and ITCS109);
- 7) included modified parameters for the geometry and kinematics of 18 *CSS* (ITCS006, ITCS007, ITCS015, ITCS020, ITCS021, ITCS023, ITCS029, ITCS042, ITCS052, ITCS053, ITCS065, ITCS082, ITCS100, ITCS101, ITCS102, ITCS111, HRCS029, HRCS032);
- 8) included two new *Debated Seismogenic Sources (DSS)* located in the central-northern Po Plain (ITDS074, ITDS076);
- 9) removed two *DSS*: ITDS029 *Cecita Lake* and ITDS053 *Laghi*, which have been transformed into their respective *CSSs* (ITCS176 *Cecita Lake* and ITCS177 *Ampollino Lake*);
- 10) proposed an improved characterization of a number of previously existing *ISS* and *CSS*. All these sources feature improved commentaries, new pictures, and updated reference lists.

For further queries please write to: [sorgenti@ingv.it](mailto:sorgenti@ingv.it).

| DISS Version#            | 3.0.0  | 3.0.1   | 3.0.2  | 3.0.3   | 3.0.4   | 3.1.0   | 3.1.1  | 3.2.0   | 3.2.1  |
|--------------------------|--|---|--|---|---|---|--|---|--|
| Release date             | Sep 2004   | Nov 2005  | Sep 2006   | Jul 2007  | Oct 2007  | Jun 2009  | Jul 2010   | Jun 2015  | Apr 2018   |
| Significant improvements | <ul style="list-style-type: none"> <li>• Non-segmented, non-parameterized sources introduced</li> <li>• Graphic representation of fault kinematics</li> <li>• Qualifiers &amp; Explanatory Notes introduced</li> </ul> | <ul style="list-style-type: none"> <li>• Composite Seismogenic Sources introduced</li> <li>• Web version implemented</li> </ul> | <ul style="list-style-type: none"> <li>• Google Earth version implemented</li> </ul> | <ul style="list-style-type: none"> <li>• 25 new "Historical sources"</li> </ul> | <ul style="list-style-type: none"> <li>• Acknowledges the results of the research project "Assessing the seismogenic potential and the probability of strong earthquakes in Italy"</li> </ul> | <ul style="list-style-type: none"> <li>• Debated Seismogenic Sources introduced</li> <li>• Active Folds introduced</li> <li>• Thematic maps introduced</li> <li>• Web portal restyling</li> </ul> | <ul style="list-style-type: none"> <li>• Questionnaire for Debated Seismogenic Sources updated</li> <li>• Thematic maps updated</li> </ul> | <ul style="list-style-type: none"> <li>• New web-server architecture</li> <li>• New web site</li> <li>• New front-end allowing registered users to post comments and suggestions on database contents</li> <li>• Subduction layer introduced</li> </ul> | <ul style="list-style-type: none"> <li>• improved version specifically dedicated to the construction of the new seismic hazard map of Italy (MPS16 Project)</li> </ul> |
| ISS <sup>1</sup>         | 100  | 107 <sup>a</sup>  | 115 <sup>b</sup>   | 115   | 119 <sup>c</sup>  | 119 <sup>d</sup>  | 123 <sup>e</sup>   | 126 <sup>h</sup>  | 127 <sup>i</sup>   |
| CSS <sup>1</sup>         | ---  | 67  | 81   | 86  | 92  | 98 <sup>f</sup>   | 118 <sup>g</sup>   | 167   | 188 <sup>j</sup>   |
| DSS <sup>1</sup>         | ---  | ---   | ---  | ---   | ---   | 8   | 27   | 35  | 35 <sup>k</sup>  |
| SDZ <sup>1</sup>         | ---  | ---   | ---  | ---   | ---   | ---   | ---  | 3   | 3  |
| Refs <sup>2</sup>        | 1,720  | 1,944   | 2,063  | 2,063   | 2,218   | 2,476   | 2,670  | 3,139   | 3,690  |
| Images <sup>3</sup>      | 550  | 683   | 794  | 794   | 859   | 1,416   | 1,731  | 2,215   | 2,440  |
| Texts <sup>4</sup>       | ~250   | ~270  | ~300   | ~300  | ~320  | ~660  | ~730   | ~870  | ~950   |

<sup>1</sup> Source types: ISS, Individual Seismogenic Source; CSS, Composite Seismogenic Source; DSS, Debated Seismogenic Source; SDZ, Subduction Zone.

<sup>2</sup> Total number of independent bibliographic references associated with the seismogenic sources.

<sup>3</sup> Total number of independent images (original from published literature) documenting the seismogenic sources.

<sup>4</sup> Total number of equivalent pages of original texts documenting the seismogenic sources.

<sup>a</sup> ISS: 14 added; 7 removed; parameters of 8 modified/improved.

<sup>b</sup> ISS: 9 added; 1 removed; parameters of 35 modified/improved.

<sup>c</sup> ISS: 7 added; 3 removed; parameters of 17 modified/improved.

<sup>d</sup> ISS: parameters of 20 modified/improved.

<sup>e</sup> ISS: 7 added; 3 removed; parameters of 5 modified/improved.

<sup>f</sup> CSS: 6 added; parameters of 24 modified/improved.

<sup>g</sup> CSS: 21 added; 1 removed; parameters of 29 modified/improved.

<sup>h</sup> ISS: 5 added; 2 removed.

<sup>i</sup> ISS: 2 added; 1 removed; parameters of 8 modified/improved.

<sup>j</sup> CSS: 24 added; 3 removed; parameters of 18 modified/improved.

<sup>k</sup> DSS: 2 added; 2 removed.