

## M8S ALGORITHM – LIST OF TARGET EVENTS

| Date              | Latitude, °N | Longitude, °E | Depth      | M <sub>max</sub> | M8S        | Commentary                    |
|-------------------|--------------|---------------|------------|------------------|------------|-------------------------------|
| 16.01.1975        | 38.2         | 15.78         | 21         | 5.5              | Yes        |                               |
| 06.05.1976        | 46.23        | 13.13         | 12         | 6.5              | Yes        |                               |
| 15.04.1978        | 38.27        | 15.1          | 18         | 5.8              | Yes        |                               |
| 19.09.1979        | 42.72        | 12.95         | 6          | 5.8              | No         | 20 km from alarm              |
| 28.05.1980        | 38.46        | 14.34         | 19         | 5.5              | Yes        |                               |
| 23.11.1980        | 40.85        | 15.28         | 18         | 6.7              | Yes        |                               |
| 25.11.1986        | 44.12        | 16.34         | 30         | 5.5              | No         | Croatia                       |
| 05.05.1990        | 40.78        | 15.77         | 10         | 5.6              | Yes        |                               |
| 27.11.1990        | 43.85        | 16.63         | 24         | 5.6              | No         | Croatia                       |
| 26.02.1991        | 40.19        | 13.82         | 401        | 5.5              | No         | Deep event                    |
| 05.01.1994        | 39.08        | 15.15         | 272        | 5.8              | No         | Deep event                    |
| 15.10.1996        | 44.79        | 10.78         | 10         | 5.8              | Yes        |                               |
| 26.09.1997        | 43.08        | 12.81         | 10         | 6.4              | No         | Predicted inM5.5+             |
| 26.09.1997        | 43.05        | 12.88         | 10         | 5.9              | Yes        |                               |
| 12.04.1998        | 46.24        | 13.65         | 10         | 6                | Yes        | Slovenia                      |
| 18.05.1998        | 39.25        | 15.11         | 279        | 5.6              | Yes        | Deep event                    |
| 09.09.1998        | 40.03        | 15.98         | 10         | 5.9              | Yes        |                               |
| 17.07.2001        | 46.73        | 11.2          | 10         | 5.5              | Yes        |                               |
| <b>06.09.2002</b> | <b>38.38</b> | <b>13.7</b>   | <b>5</b>   | <b>5.9</b>       | <b>No</b>  |                               |
| <b>31.10.2002</b> | <b>41.79</b> | <b>14.87</b>  | <b>10</b>  | <b>5.9</b>       | <b>No</b>  |                               |
| <b>29.03.2003</b> | <b>43.11</b> | <b>15.46</b>  | <b>10</b>  | <b>5.5</b>       | <b>Yes</b> |                               |
| <b>14.09.2003</b> | <b>44.33</b> | <b>11.45</b>  | <b>10</b>  | <b>5.6</b>       | <b>Yes</b> |                               |
| <b>23.02.2004</b> | <b>47.27</b> | <b>6.27</b>   | <b>17</b>  | <b>5.5</b>       | <b>Yes</b> | <b>Switzerland</b>            |
| <b>05.05.2004</b> | <b>38.51</b> | <b>14.82</b>  | <b>228</b> | <b>5.5</b>       | <b>No</b>  | <b>Deep event</b>             |
| <b>12.07.2004</b> | <b>46.3</b>  | <b>13.64</b>  | <b>24</b>  | <b>5.7</b>       | <b>No</b>  | <b>Slovenia</b>               |
| <b>24.11.2004</b> | <b>45.63</b> | <b>10.57</b>  | <b>24</b>  | <b>5.5</b>       | <b>Yes</b> |                               |
| <b>26.10.2006</b> | <b>38.67</b> | <b>15.4</b>   | <b>216</b> | <b>5.8</b>       | <b>Yes</b> | <b>Deep event</b>             |
| <b>06.04.2009</b> | <b>42.33</b> | <b>13.33</b>  | <b>8</b>   | <b>6.3</b>       | <b>No</b>  |                               |
| <b>20.05.2012</b> | <b>44.9</b>  | <b>11.23</b>  | <b>8</b>   | <b>6.1</b>       | <b>No</b>  |                               |
| <b>24.08.2016</b> | <b>42.71</b> | <b>13.17</b>  | <b>10</b>  | <b>6.2</b>       | <b>No</b>  |                               |
| <b>28.10.2016</b> | <b>39.39</b> | <b>13.52</b>  | <b>458</b> | <b>5.8</b>       | <b>No</b>  | <b>Deep, 20 km from alarm</b> |
| <b>30.10.2016</b> | <b>42.85</b> | <b>13.09</b>  | <b>10</b>  | <b>6.6</b>       | <b>No</b>  |                               |

List of target earthquakes for M8S retrospective (1972-2001) and real-time (from 2002) application in Italy and adjacent territory. The operating magnitude considered for M8S application is the maximum reported magnitude. The earthquakes occurred during the period of forward monitoring, since 2002, are evidenced in bold. The earthquakes parameters are those reported in UCI earthquake catalog, which is composed by PDE-NEIC-ISC data.