The Euro-Mediterranean Bulletin
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This document is dedicated to the network operators who already participate or wish to participate to the EMSC Bulletin. It aims to present briefly the bulletin, its content, its production, how to improve it with better data exchange and how contributors can benefit from it.

Introduction
The Euro-Mediterranean Seismological Centre is producing a homogeneous seismological bulletin at the Euro-Mediterranean scale. The aim is to rapidly (6 months target) publish a bulletin for events occurring in the region by merging parametric data, provided by our contributors. The Euro-Med Bulletin has been developed thanks to an EU-funded project (EPSI) and the support and data contributions of the seismological institutes.

Objectives
- Produce a regular bulletin within 6 months for the Euro-Med region.
- Improve data availability for the seismological community through the EMSC database collected since 1998 (including contributors and EMSC bulletins).
- Associate isolated phases and groups of phases with known hypocenters (reported by other networks).
- Improve events location in border regions and off-shore.
- Compute mb and ML magnitudes when station amplitude/period information is available.
- Help maintaining the International Registry of stations codes in collaboration with the ISC and the USGS.

Content
- Computed EMSC location when data from several networks are available.
- Reported events when data originate from a single network and for which no phase association is possible. The following distinctions are defined:
  - An event is labeled as “REPORTED” when its location falls within the reporting network (the location is said authoritative).
  - An event is labeled as “DEPRECATED” when its location falls outside the reporting network. Without confirmation from another network, its existence is judged as a possible artefact.
- Since January 2008, no magnitude threshold is applied and the full magnitude range (according to the data provided by the contributors) is available.

Required Data Type
- Parametric data should be provided by email to csem@emsc-csem.org, in text format (ASCII) in the body of the message.
- Data message can include:
  - Bulletins including earthquake origin information (origin time, epicentre, depth, event type and magnitudes) and associated arrivals.
  - Groups of phases for which no location is available.
  - Isolated phases.
  - Locations of non tectonic (artificial, induced, etc) events are important to discard them from the seismicity picture of the Euro-Med region.
  - You can provide the full bulletin and a correct event type definition.
  - Or you can provide only the location in order to allow us to screen them out.
- All station codes must be registered at the International Registry (EMSC can help for registration).
Data Access

- Free and full access to the bulletins database (by email/autoDRM or on the web) is given to all data contributors and EMSC members for non-commercial uses through our web site. The retrieved data should not be distributed to any other party. The database contains the collected local bulletins sent in GSE2.0 format. The full Euro-Med bulletin is also available with the same limitations, for scientific purposes.
- The catalogue (including location and magnitude only) and the associated maps are available to any visitor through our web site (no login required).

Requirements

To ensure that your contribution is fully integrated, the following points need your consideration:

- Rapidly provide all available data.
- A regular EMSC Bulletin production requires receiving local network data as quickly as possible. Currently, several networks disseminate data once or twice a year. Such bulletins will not be integrated in the Euro-Med bulletin. Please regularly provide your bulletin as soon as it has been produced (twice a week, on a weekly or monthly basis). Contact Stéphanie Godey (godey@emsc-csem.org) to establish rules for regular exchanges.
- Building a reliable bulletin including magnitudes is only possible when amplitude/period information is available. Currently, an “EMSC” magnitude is computed for less than 40% of the earthquakes. If possible, please include calibrated amplitude/period information in nanometers measured zero to peak.
- To accurately image the seismicity, artificial events should be discarded from the Euro-Med Bulletin. If possible, please include the event type or an explosions list.

How to improve the Euro-Med bulletin?

What are the requirements for an operational production of the Bulletin?

Accurate and Complete Data Content:
- Origins (if available), Arrivals and Stations Information.
- Amplitude and Period Information (if available) to compute independent EMSC magnitudes.
- Event type information or non-tectonic events list to discard them from the seismicity map.

Regular and fast contribution:
- Bulletin release as soon as possible: ideally within 6 months!

Benefits for contributors

- Make your data available to all other contributing networks and retrieve data through the EMSC website
- Availability of all collected and Euro-Med bulletins and arrivals in GSE2.0 format.
- Phase association for all events, including reported isolated picks.
- Creation and update of a Euro-Med database useful for geophysical and geohazard studies.
- Improved events location in border regions and off-shore of the Euro-Med region.