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A comprehensive seismological bulletin at the Euro-Mediterranean scale

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The Euro-Mediterranean Seismological Center (EMSC) is in charge of collecting seismological parametric data recorded by the local networks of the Euro-Mediterranean region in order to improve data availability for seismologists over the borders. After data merging, the EMSC regularly produces a comprehensive bulletin for the region, with few months delay after earthquake occurrence and magnitude completeness of three. The purpose is to take advantage of the close relationships the EMSC developed with the network operators of the region in order to optimize data collection, to offer additional services to the rapid earthquake information already provided by the EMSC, to provide complementary and earlier information than computed by international institutes such as the NEIC and ISC. The successful Euro-Med bulletin should reproduce the seismicity as imaged by the local agencies when events occur within their network and improve location in borders regions and off-shore.

We first describe how the bulletin is produced from data reception to event locations, including data processing, location method and velocity models in use. We present the results of the six years (1998-2003) Euro-Med bulletin currently available. This bulletin was computed using data from 63 local agencies recorded by 1,700 stations. In total, 32,000 events are included in the EMB 98-03. We describe the influence of data merging on event location constrains and present statistic analysis on location quality.

Before starting the operational production, the reliability of the Euro-Med bulletin was evaluated by the networks operator and seismologists of the region. After applying the

reported corrections, a final Euro-Med bulletin 1998-2003 was published. We believe that having passed this test, the Euro-Med bulletin can be considered as a good image of the seismicity of the region.