



Submarine mass movements on the eastern Algerian margin : preliminary results from the MARADJA 2 - Leg 2 cruise (2005)

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A geophysical survey conducted on the western margin offshore Algeria, south-western Mediterranean, during the MARADJA cruise (2003) revealed the importance of gravity-dominated depositional processes (turbidity currents and mass wasting) in this seismically active area, located on the inner Europe-Africa convergent plate boundary. In order to extend toward the eastern Algerian margin the bathymetric and reflection-seismic survey, the MARADJA2/SAMRA - cruise, Leg 2 (21 November-12 December 2005, French R/V "Le Suroit") was carried out between Dellys (4°E) and Annaba (8°E). We acquired multibeam bathymetry and backscatter imagery (Simrad EM300), high-resolution seismic-reflection profiles (2-5 kHz Chirp), 24- and 72-channel seismic profiles, and seven sediment cores. The purposes of this study are: (i) to identify and describe the recent eastern Algerian margin depositional systems with emphasis on mass wasting processes, and (ii) to evaluate the relationships between the sedimentary processes and the historical seismicity that affects this area. We present here for the first time a complete multibeam bathymetric map and illustrate the numerous mass movements (slumps and debris flows) identified at the foot of the continental slope, often associated with regional reverse faults developing over ramps discovered during the cruise.