Geophysical Research Abstracts, Vol. 7, 08566, 2005
SRef-ID: 1607-7962/gra/EGU05-A-08566


# Analysis of the rupture of the Sumatra Mw=9.0 using the hydrophone network of the International Monitoring System in the Indian ocean

**A. Roueff** (1), Y. Cansi (1), J. Guilbert (1), A. Lepichon (1), J. Vergoz
(1) Commissariat à l'Energie Atomique, Laboratoire de Détection et de Géophysique, France

The rupture of the Sumatra earthquake (Mw=9.0) in the end of year 2004 resulted in a Tsunami disaster. However, this event is also an exceptional opportunity to present the processing capabilities of the International Monitoring System (IMS) network for the nuclear test monitoring (CTBT). In this paper, we present data from the three hydroacoustic stations of the Indian Ocean: Diego Garcia (HA8), Cap Leeuwin (HA1), and Crozet Island (HA4). The main characteristics of the waves emitted by the seism, and recorded at the hydrophone triplets are presented. In particular, mini array analysis, using PMCC method, shows a complex structure of the azimuth evolution at these stations. These variations are discussed in term of fault history.