Geophysical Research Abstracts, Vol. 8, 08226, 2006
SRef-ID: 1607-7962/gra/EGU06-A-08226

Proof of concept for a global survey of volcanic activity in Indonesia-Philippine using infrasound array in Kalimantan

J. Guilbert (1), S. Jammes (2), P. Gunawan(3), M. Atje (4) and T. Assef (1)

(1) CEA/DASE, BP12, 91680 Bruyères-le-Châtel, France, (2) EOST Strasbourg, 5, rue René Descartes, Strasbourg, France, (3) Bandan Meteorologi dan Geofisica, Jakarta, Indonesia, (4) Volcanology Survey of Indonesia, Bandung, Indonesia (jocelyn.guilbert@cea.fr)

The survey of the volcanic activity is very important in Indonesia where more than 120 volcanoes are counted. A volcanic eruption could have a dramatic impact on the population, the local economy and could generate some significant perturbations for the airplane traffic. Usually the volcanic monitoring systems are based on local instrument installed on the most active volcanoes. This approach is too expensive for a global monitoring. So the global survey of the volcanic activity is an important goal for the scientist. The infrasound technology has already shown a unique low-level threshold for the detection of volcanic activity as ash clouds or explosions. This kind of detection and characterization of the volcanic activity is very important for a country like Indonesia where the volcanoes are aligned along more than 5000km of the arc of subduction. The central position the Kalimantan Island (Borneo) was identified as the best area to monitor with a good resolution in azimuth all the Indonesian volcanoes. The PMCC bulletins of detection (from March to August 2005) are presented and show a clear image of the volcanic activity in the South-eastern Asia region.