

A METHOD FOR REMOTE MONITORING OF ACTIVE VOLCANOES

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The PIRPSEV (1) had undertaken to all the various initiatives, skills and facilities, and to promote suitable tools and a network for the light and low cost remote observation of active volcanoes, using the ARGOS system.

After implementation of the experiments of ETNA (1982) (2), a similar system was set up by ORSTOM (3) on MATTHEWS since 1986 (4) and HUNTER since 1988 (4) volcanoes, at the southern end of the New Hebrides island arc (South West Pacific).

Fumarole temperatures, heat flow, meteorological data, and seismic event counting at different thresholds are measured every four hours and transmitted eight times a day by ab ARGOS PTT.

The automatic recovery, processing and archiving of the informations is done by the CTIV (5). This data bank is easily accessible to the entire scientific community with the short delay through all the existing electronic network facilities (EARN, TRANSPAC, MINITEL, ...).

Our purpose is:

- a) To analyze the influence of meteorological perturbations on counts of seismic signal (tropical cyclone, heavy swell, lowering of pressure), and fumaroles and soil temperatures (rains, wind).
 - b) to give the area of influence of seisms all around MATTHEWS and HUNTER measured by geophones compared to regional seisms detected by global network.
 - c) to test a low-power and relatively easy to install equipment for diverse volcanological and meteorological probes and system for WHF-UHF local transmission.
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