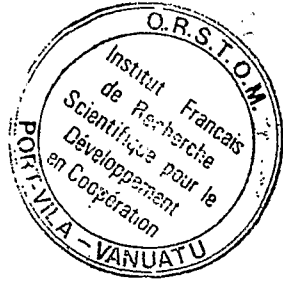


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SEARCH FOR PRECURSORS IN THE NEW HEBRIDES ISLAND
ARC : THE AUGUST 17, 1979 EARTHQUAKE ($M_s = 6.2$)

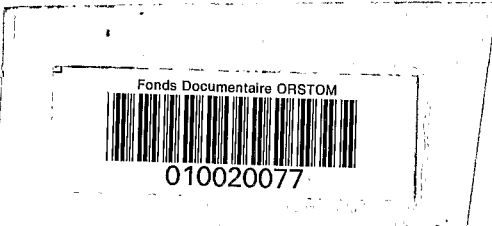
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A magnitude (M_s) 6.2 earthquake occurred on August 17, 1979 at shallow depths within or possibly adjacent to the convergent plate boundary of the New Hebrides island arc. The event is located within 50 to 60 km of tiltmeter and seismograph stations on Efate Island, and is the largest earthquake so far caught near the monitoring networks operated by Cornell, ORSTOM and the New Hebrides Mineral Resources Department. In addition to stations of the seismograph network, three bubble level tiltmeters, a long-baseline (100 m.) half-filled water-tube tiltmeter, and a 1 km leveling array are located on Efate Island. A first inspection of the raw data indicates no obvious tilt precursors, but further analysis is proceeding to establish a clear result. The seismograph network recorded a definite foreshock sequence. Abundant aftershocks were also recorded with clear indications of systematic development in space and time. Most of the fore- and aftershocks will be well-located by data from the local network. Further analyses of these and other data for the August 17 event will be presented, including available teleseismic data and local on-scale digital recordings of the main shock and larger aftershocks obtained on Efate Island.

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EOS, Trans. Am. Geoph. Union, Washington,
Fall meeting, 1979