



**ESCUELA POLITECNICA NACIONAL
INSTITUTO GEOFISICO**

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IG-310-2005

Quito, September 12, 2005

Dr.

Domenico Giardini

FDSN Chair

This letter is to express our official interest in joining the Federation of Digital Seismograph Networks (FDSN) and to present a brief description of our present status and future plans.

Our seismic network is composed of 1C-short period stations distributed in the center and northern part of the country and in the Galapagos Islands. At the moment, we operate, maintain and receive the information of 44 inland stations in real time and we analyze with some delay the information of 5 stations in the Galapagos Islands. Also, we operate three broadband stations within the framework of the German Cooperation (BGR). Two of those stations are telemetric but due to technical aspects they are not incorporated to daily monitoring and analysis of the volcanic and seismic activity.

After the beginning of the volcanic unrest, in 1998 and subsequent eruptions of three volcanoes in Ecuador, and of course because of the seismic potential we have, some countries have shown interest in supporting research projects; those countries are Germany, Japan and Canada, from who we have obtained technical support to begin the implementation of new technology with broadband sensors.

In this line, within the Japanese Technical Cooperation Program (JICA) it has been planned the installation of ten broad band sensors: 5 in Cotopaxi volcano and 5 in Tungurahua volcano, with real time acquisition.

Additionally, with the PMA-GCA Program of the Geological Survey of Canada, it is planned the deployment of 3 broadband sensors in the northern part of the country. Related to this last project, it is interesting to mention that this task has been planned trying to reduce to the minimum the implementation costs with the use of new Chinese cheaper sensors and constructing and assembling locally, all the acquisition and telemetric systems.

For the global purposes of the FDSN, we think that it would be good to have at least three of these new stations opened, in order to have a good geographical distribution in Ecuador (1 at Cotopaxi Volcano, 1 at Tungurahua Volcano and 1 at the northern part). Technical arrangements of this opening as well as the codes and formats could be discussed later, after the stations would be operating.



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Please find attached the characteristics of the future broad band stations with maps to better see the distribution; also a map showing our present seismic network.

Hugo Yepes A.
DIRECTOR
INSTITUTO GEOFÍSICO

ATTACHMENTS

GANADOR DEL PREMIO MUNDIAL SASAKAWA-UNDRO 1992
A la mejor labor en Mitigación de Desastres



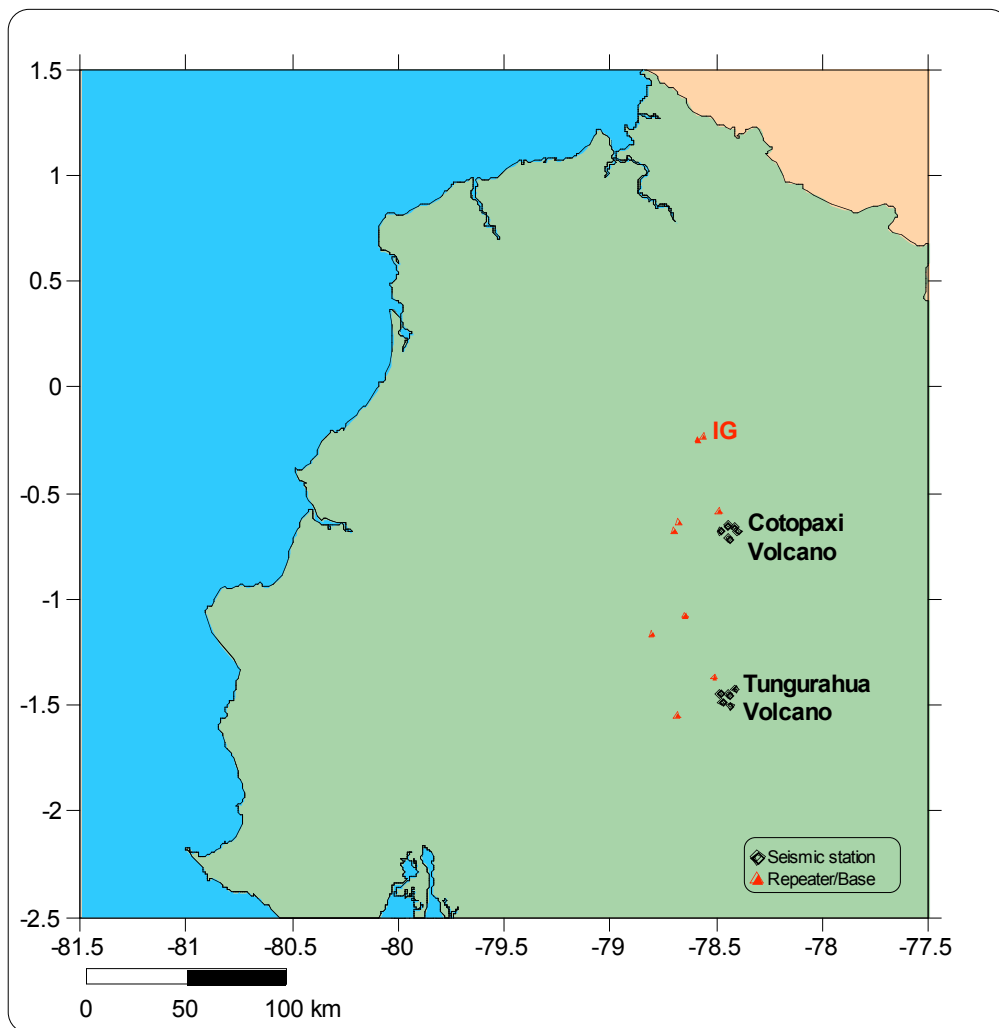
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1. Technical characteristics

Project	Number of sensors	Sensors to be opened	Sensor Type
JICA	10	2	Guralp 40T, 30 s
PMA-GCA	3	1	FBS-3B 23s-40Hz

2. Seismic Stations - JICA Cooperation

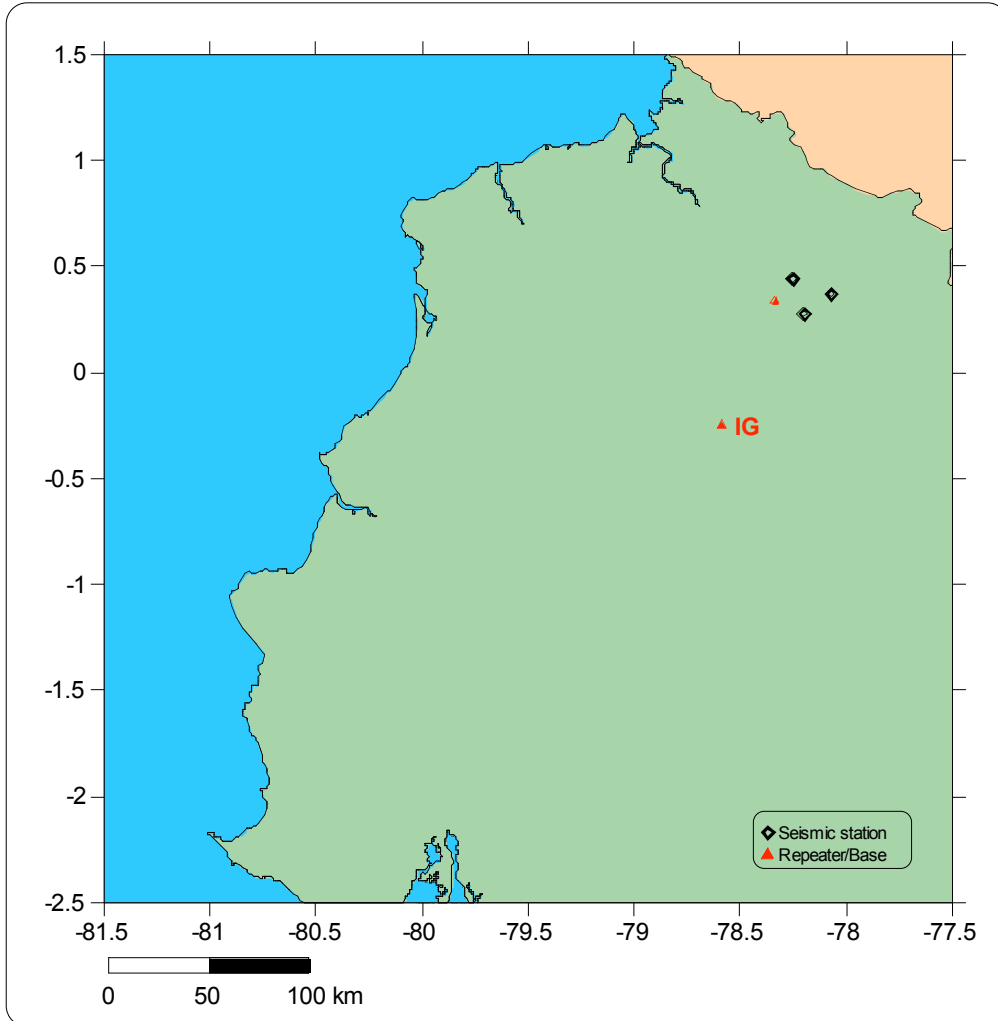


3. Seismic Stations – PMA-GCA Cooperation



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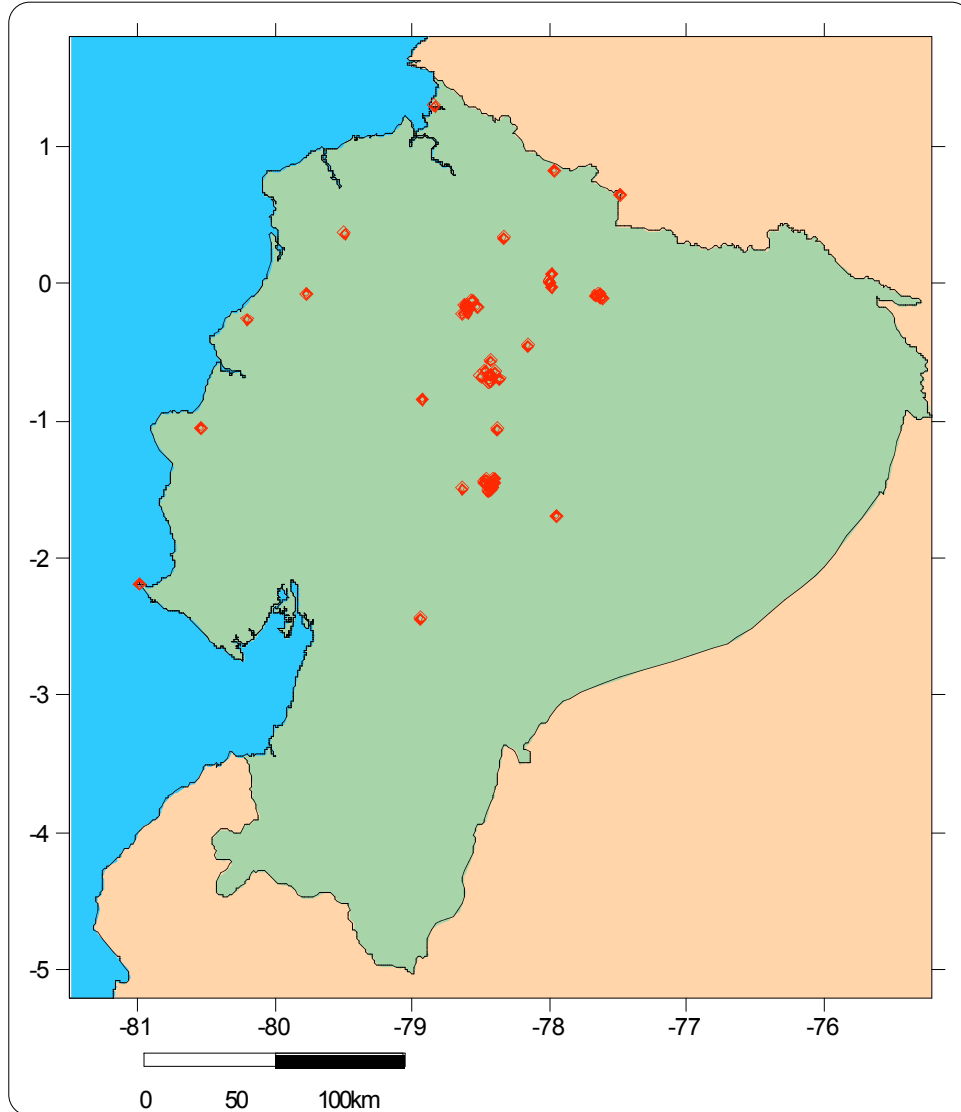
4. Present Ecuadorian Seismic Network

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