

Accelerometer Data Sharing and Usage Policies

INSTITUTO GEOFÍSICO - ESCUELA POLITÉCNICA NACIONAL

The Instituto Geofísico at the Escuela Politécnica Nacional in Quito, Ecuador (IG-EPN) manages and maintains a National Accelerometer Network (RENAC by its Spanish acronym: Red Nacional de Acelerógrafos). Installation of this network began in 2009 as part of the *Strengthening the Geophysical Institute: Augmenting and Modernizing the National Seismological and Volcanological Surveys*¹ project, and financed by the Secretaría Nacional de Ciencia y Tecnología (SENESCYT). The network was correspondingly augmented with additional sensors, and is currently fully operational with funds acquired from the *Generating Early Warning System Capabilities for the National Emergency Management System: Installing Decision-Critical Instruments in the Face of Seismic and Volcanological Risk*² project.

The modern day RENAC is composed of digital accelerometers installed throughout the entire country. The majority of sensors record their data on site, which is to say that the majority of stations do not transmit data in realtime to the Instituto Geofísico. It is also important to mention that during earthquakes, sensors are sometimes susceptible to power outages or even physical damage to sensor components (e.g. solar panels) that affect the proper operation of the site.

Access to accelerometer data is free of charge to Ecuadorean governmental institutions and public schools at all levels. The data are open-access to these entities provided that their intended use is for academic, research, or disaster mitigation purposes. These data are not to be distributed to any third-parties without the express written consent of the Instituto Geofísico.

Should these data be used in a research publication, report, or study, we kindly ask that the following **reference** be used which is an IG publication detailing the when, where, and how these data are typically collected.

*Singaucha J. C., Laurendeau A., Viracucha C., Ruiz M., 2016. Observaciones del sismo del 16 de Abril de 2016 de magnitud Mw 7.8, Intensidades y Aceleraciones. Sometido a la Revista Politécnica.

The raw, unadulterated, accelerometer data will be returned to the user in ASCII format, which can be read by any text editor, and will be the **ONLY** format available for dissemination from the IG. In addition, the relevant files will also contain pertinent metadata such as station name, latitude, longitude, and source parameters of the event, etc.

Downloading Note:

The IG-EPN is not responsible for incorrect (malicious or otherwise) use of the data made available.

Acknowledgement:

Additionally, should the situation merit it, the following data acknowledgement statement must be included in any and all future publications:

The data used in this work were obtained from the National Accelerometer Network (RENAC) of the Instituto Geofísico at the Escuela Politecnica Nacional (IG-EPN). The installation and expansion of RENAC as operated by the IG-EPN was made possible utilizing funds from the Escuela Politecnica Nacional, part of Proyecto SENESCYT PIN-08-EPNGEO-0001 "Fortalecimiento del Instituto Geofísico: Ampliación y Modernización del Servicio Nacional de

¹FORTALECIMIENTO DEL INSTITUTO GEOFISICO: AMPLIACION Y MODERNIZACION DEL SERVICIO NACIONAL DE SISMOLOGIA Y VULCANOLOGIA (PROGRAMA NACIONAL DE SISMOLOGIA Y VULCANOLOGIA)"

²GENERACIÓN DE CAPACIDADES PARA LA DIFUSIÓN DE ALERTAS TEMPRANAS Y PARA EL DESARROLLO DE INSTRUMENTOS DE DECISIÓN ANTE LAS AMENAZAS SÍSMICAS Y VOLCÁNICAS DIRIGIDOS AL SISTEMA NACIONAL DE GESTIÓN DE RIESGOS".

Sismología y Vulcanología,” and of investment project termed “Generación de Capacidades para la Difusión de Alertas Tempranas y para el Desarrollo de Instrumentos de Decisión ante las Amenazas Sísmicas y Volcánicas dirigidos al Sistema Nacional de Gestión de Riesgos”

Additional Requirement

We request that whosoever uses these data in research publications or technical reports, kindly send a copy of this work to the Instituto Geofísico.

Note concerning the data related to the 16 April 2016 M7.8 mainshock event

We regret to inform that various stations recording the accelerations from the 16 April 2016 M7.8 mainshock were adversely affected by that event. In particular, power outages and building collapses relegated many of the network sensors as useless. For these reasons, at present moment only the stations included in Instituto Geofísico Informe Especial No. 18 are available for dissemination.

¹“FORTALECIMIENTO DEL INSTITUTO GEOFISICO: AMPLIACION Y MODERNIZACION DEL SERVICIO NACIONAL DE SISMOLOGIA Y VULCANOLOGIA (PROGRAMA NACIONAL DE SISMOLOGIA Y VULCANOLOGIA)”

²“GENERACIÓN DE CAPACIDADES PARA LA DIFUSIÓN DE ALERTAS TEMPRANAS Y PARA EL DESARROLLO DE INSTRUMENTOS DE DECISIÓN ANTE LAS AMENAZAS SÍSMICAS Y VOLCÁNICAS DIRIGIDOS AL SISTEMA NACIONAL DE GESTIÓN DE RIESGOS”.