

RELATIONSHIPS BETWEEN RAINFALL AND LANDSLIDES IN THE CITY OF RIO DE JANEIRO

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Since December 1996, the Rio Watch System has been recording the rainfall from its 30 raingauges (remote stations), spread out in the area of the Rio de Janeiro County. The data acquisitions are made at each 15 minutes and automatically sent to the computers of the Central Station, located at GEO-RIO, the Rio de Janeiro Geotechnical Engineering Office. Besides monitoring rain precipitation levels, GEO-RIO – as the Public Department responsible for the slopes - carries out all the landslides reports related to the geotechnical accidents that happen within the City's limits. The data analysis (geotechnical and rainfall) taken to the 15 minutes precision, brought on the need to establish new criteria and methodology for the study but, on the other hand, made it possible to improve the knowledge on the failure processes that occur at the Rio de Janeiro's slopes. This paper presents these established criteria and methodology, as well as the results come out from relationship studies between rainfall and 268 landslides, recorded during the year of 1998.