

Urgent Memorandum

To: The Big Honcho at Boom Engineering
From: The Director of Natural Disasters in South America
Date: Today
Re: Volcano Alert!!

Mount Gunnarupt is located in the Andes Mountains in Argentina on the western side of South America. Its latitude and longitude are 30 S and 70 W, respectively. We have noticed some “activity” from Mount Gunnarupt in the past month. There has been some smoke coming from the mountain and we have felt some very slight ground vibrations. This is the first time anyone has observed activity coming from Mount Gunnarupt, and a check of the historical records in the library reveals nothing. We are very worried that Mount Gunnarupt is a volcano that could erupt and endanger thousands of people who live nearby.

We would like to hire your engineering firm to help us. First, we would like you to estimate what type of eruption would most likely occur and determine which of the surrounding towns might be in danger. Then, assuming that some or all of the surrounding towns are in danger, we would like your engineering firm to design an early warning system that would provide the people in these towns as much time as necessary to evacuate to safety. Lastly, we would like you to develop an evacuation plan for the towns in danger.

We have great confidence in your team and we need your help to save thousands of lives! As engineers, I know you will use your science and math skills, your creativity, and your desire to help people, to design a solution to this very important situation. We are counting on you to help protect the populated cities surrounding Mount Gunnarupt. Good Luck!!

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