

The Relationship between the Terrain around Minamidaira high school and the weather

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In Minamidaira high school, we have been recording since about six years ago the wind direction and wind speed.

On April 3, 2012, strong winds caused damage in many parts of Japan.

In adjacent Hachioji the wind speed of 38.9m/s was observed, but Minamidaira school recorded only 12m/s.

We thought the reason the wind was suppressed in the school has something to do with the characteristics of the terrain of the school area.

So, we did a survey and research, to explore the relationship between terrain around Minamidaira high school and wind speed, using the experimental model that was created from the past wind speed data.

As a research method, we converted the data from the anemometer into a chart and summarized the characteristics of the wind that blows around school.

The results were compared to the wind speed data from the Japan Meteorological Agency Hachioji-Fuchu Area to ascertain their differences and similarities

In addition we carried out a test to verify if the results were affected by the terrain.

We created a three-dimensional terrain model of the school area, and winds similar to natural conditions were applied to the model.

Also, there is a concern that the school's southeast side slope might collapse.

The Slope has been specified as a hazard slope area by the Tokyo Metropolitan Government.

Therefore, we collected the rock samples on the formation of the strata, and conducted a survey to ascertain the seriousness of the danger.

Keywords: wind direction, wind speed, anemometer , a hazard slope area