



Communicating Uncertainty in Volcanic Ash Forecasts: Decision-Making and Information Preferences

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The Robust Assessment and Communication of Environmental Risk (RACER) consortium, an interdisciplinary research team focusing on communication of uncertainty with respect to natural hazards, hosted a Volcanic Ash Workshop to discuss issues related to volcanic ash forecasting, especially forecast uncertainty. Part of the workshop was a decision game in which participants including forecasters, academics, and members of the Aviation Industry were given hypothetical volcanic ash concentration forecasts and asked whether they would approve a given flight path. The uncertainty information was presented in different formats including hazard maps, line graphs, and percent probabilities. Results from the decision game will be presented with a focus on information preferences, understanding of the forecasts, and whether different formats of the same volcanic ash forecast resulted in different flight decisions. Implications of this research will help the design and presentation of volcanic ash plume decision tools and can also help advise design of other natural hazard information.