



Modeling and measurement of the volcanic ash plume transport from the Eyjafjallajökull volcano towards Central Europe in April 2010-Methods applied and lessons learned

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On 14 April 2010, a VEI-4 eruption occurred at the Eyjafjallajökull volcano in Iceland, which continued for a number of days. Within the first 72 hours, more than 0.1 km³ Tephra were released. Due to the prevailing weather conditions, volcanic ash was rapidly transported from Iceland towards Central Europe. The ash plume reached Southern England on 15 April, crossed Germany on 16 April and reached the Alps in the morning hours of 17 April. As a consequence, European air travel broke down almost completely, and flights were grounded for a number of days. In this presentation, we describe the methods applied by the national weather service of Austria and the Austrian national aviation authorities to handle the situation, taking into account also international response systems and mechanisms. Furthermore, we discuss the model results in combination with available observations, and outline the lessons learned from this event. Based on this analysis, improvements in modeling and enhancement of procedures are proposed.