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# CASE STUDY OF THE FIRST VOLCANIC ASH EXERCISE IN ROMANIA USING REMOTE SENSING TECHNIQUES

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**Abstract**

In this paper we present results from the first European (EUR) and North Atlantic (NAT) volcanic ash exercise (VOLCEX) which includes all the warning phases associated as alerting, reactive and proactive phases. Because volcanic ash represents one of the most serious natural hazards that could affect aviation safety, the measurement campaign was focused on improving the reaction of relevant authorities in case of airspace contamination with volcanic ash and, particularly, to assess the current operational procedures and information flows. Organized in the frame of the International Civil Aviation Organization – EUR/NAT Office in Paris, the VOLCEX measurements in Romania were coordinated by the Romanian Atmospheric 3D research Observatory (RADO) and Romanian Air Traffic Services (ROMATSA). The results from lidar measurements from Bucharest, Iasi, Cluj-Napoca-Napoca and Timisoara are presented, emphasizing the dynamics of the aerosol layers and the estimation of particle mass concentrations in the free troposphere.

*Key words:* aerosol mass concentration, aviation safety, lidar, volcanic ash

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