



Ice crystals classification using airborne measurements in mixing phase

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This paper presents a case study of ice crystals classification from airborne measurements in mixed-phase clouds. Ice crystal shadow is recorded with CIP (Cloud Imaging Probe) component of CAPS (Cloud, Aerosol, and Precipitation Spectrometer) system. The analyzed flight was performed in the south-western part of Romania (between Pietrosani, Ramnicu Valcea, Craiova and Targu Jiu), with a Beechcraft C90 GTX which was specially equipped with a CAPS system. The temperature, during the fly, reached the lowest value at -35°C . These low temperatures allow the formation of ice crystals and influence their form. For the here presented ice crystals classification a special software, OASIS (Optical Array Shadow Imaging Software), developed by DMT (Droplet Measurement Technologies), was used. The obtained results, as expected are influenced by the atmospheric and microphysical parameters. The particles recorded were classified in four groups: edge, irregular, round and small.