

Measurements of atmospheric water vapor and other parameters in Switzerland

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STARTWAVE (1), Studies in Atmospheric Radiative Transfer and Water Vapor Effects, is part of the NCCR Climate work package on climate forecasting and predictability. The aim of STARTWAVE is to improve the understanding of atmospheric processes related to water vapor. The first part of this presentation focuses on the STARTWAVE project with a brief review of the different instruments used to collect information on water in the atmosphere. This will also include examples of end products delivered by the network of instruments which are also publicly available in the STARTWAVE database through the internet (2). In the second part of this presentation, I will show new results of atmospheric structure information. These are obtained using a combination of measurements made with a commercial infrared camera on the one hand, and temperature profiles obtained by one of the STARTWAVE instruments, ASMUWARA, the All-Sky Multi-Wavelength Radiometer (3), on the other. Examples of case studies will be shown, together with a comparison with radiosonde measurements launched from Payerne, a meteorological station situated in the vicinity of Bern.

(1) J. Morland et al., *The STARTWAVE atmospheric water vapour database*, Atmospheric Chemistry and Physics, vol.: 6, pp.: 2039-2056, 2006.

(2) <http://www.iapmw.unibe.ch/research/projects/STARTWAVE/>

(3) L. Martin, M. Schneebeli, C. Mätzler, *ASMUWARA, a ground-based radiometer system for tropospheric monitoring*, Meteorologische Zeitschrift, vol.: 15, no.: 1, pp.: 11-17, 2006.