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Area-averaged sensible and latent heat flux measurements with the newly available MicroWave Scintillometer RPG-MWSC- 160

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In 2014, the microwave scintillometer RPG-MWSC-160 (produced by Radiometer Physics GmbH) became commercially available on the European market. Operating this instrument in combination with an optical Large Aperture Scintillometer (LAS) both the area-averaged sensible and latent heat fluxes can be derived. At the Meteorological Observatory in Lindenberg – Richard-Assmann-Observatory (Germany) the RPG-MWSC-160 is currently being tested in regard to its different options of data processing, to data quality, and to its possible operational use for long term observations. The contribution will discuss these aspects based on more than 18 months of continuous operation. Due to their spatial representativeness at the scale of a grid cell of a regional numerical weather prediction or climate model, LAS-MWS data are considered as a valuable contribution for model validation and improvement. First results for both heat fluxes in comparison with operational DWD model output will be shown.