

- INLET LINE: A vertical size selective inlet line (PM10) has been installed in 2004, manufactured by Riemer Messtechnik, Germany. Its design and manufacturer-proven performance corresponds to the WMO/GAW aerosol measurement procedures guidelines and recommendations.

- CPC HOHENPEISSENBERG: Presently, TSI 3772 as well as 3025 and 3776 CPCs are in operation at Hohenpeissenberg station. Several years of parallel measurements with the CPC 3762 confirmed equivalent results. Butanol is changed twice a week.

- CPC ZUGSPITZE: The water CPC at Zugspitze-Schneefernerhaus has been replaced shortly after the audit by a TSI 3025. This was again paralleled for some time and then replaced by a TSI 3762. Now a GRIMM 5420 is in operation.

- MASS CONCENTRATION: An additional TEOM instruments was installed at MOHP in 2004 with PM10 head, manufactured by LMU. The with TSP head was maintained. Except for Pollen episodes, the results are equivalent within the measurement uncertainty. Total and sample flows are monitored daily, leak check (plugging inlet line) and the bypass flow are checked only twice a year because accessibility at the rim of our roof platform requires set-up of a ladder including security measures. In 2010 a Thermo Scientific 5030 SHARP monitor was installed additionally. Except for some community-wide known artefacts in the TEOMs (sporadic bounce off/through in the inlet, wind-vibration) and occasional jumps of the SHARP mass conc. (calibration-associated but not yet completely understood) the results of TEOMs and SHARP are equivalent.

- ABSORPTION: Absorption measurements by white-light aethalometer have been fully replaced by the MAAP/Carusso and in 2008 complemented by a 3-wavelength PSAP (Radiance Research). Results for comparison Aethalometer/MAAP and application of different corrections have been published by CollaudCoen et al, ACP 2010

- SIZE DISTRIBUTION: The Las-X has been paralleled and in 2008 replaced by a GRIMM OPC, EDM 180. As of 2007 a SMPS, manufactured by IFT/TROPOS, Leipzig, Germany, is in operation, in 2009 complemented by an alternating measurement ambient/Thermodenuder.