

## NOAA/GMD Participation in the Eleventh International Pyrheliometer Comparison (IPC-XI) September 26-October 15 2010 World Radiation Center (WRC) Davos, Switzerland

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As one of the three Regional Radiation Centers (RRC) in WMO Region IV, the others being in Toronto and Mexico City respectively, NOAA broadband surface radiation measurements are referenced to the World Radiometric Reference (WRR). The WRR is defined by a group of dedicated radiometers maintained at the WRC in Davos. Every five years since the IPC-III held in 1975, NOAA/SRF standards have participated in a WMO-sponsored pyrheliometer comparison held at the WRC in Davos. Reference instruments from RCCs around the world are brought to Davos for comparison with the WSG defined WRR. Correction factors are established for relating the RRC reference instruments to the WRR. The goal is international standardization of solar irradiance measurements. Four NOAA/GMD radiometers plus additional NOAA/GMD instruments were also compared concurrently with other standards during the IPC. A Filter Radiometer Comparison (FRC) was conducted concurrently with the pyrheliometer comparison and optical depth data from participating instruments were compared with the reference sun photometers maintained at the WRC. There also was a comparison of pyrgeometers with the reference WRC black body calibration system. A NOAA/GMD sunphotometer, three rotating shadowband radiometers and a pyrgeometer were at Davos for participation in the FRC and pyrgeometer comparison. A final report summarizing the results of ICP-XI will be published by the IPC-XI host, the Physikalisch-Meteorologisches Observatorium Davos (PMOD). Over seventy individuals from forty three countries participated in IPC-XI.



**Figure 1.** A photograph of the PMOD with observing tables in place for participants and their instruments.