Geophysical Research Abstracts Vol. 14, EGU2012-4975, 2012 EGU General Assembly 2012 © Author(s) 2012



First results from new Earthshine telescope on Mauna Loa

P. Thejll, C. Flynn, H. Schwarz, H. Gleisner, M. Owner-Petersen, A. Darudi, and T. Andersen Danish Meteorological Institute, Danish Climate Centre, Copenhagen, Denmark (pth@dmi.dk)

Terrestrial albedo is an important factor in the radiative budget of the Earth's climate system. Albedo can be measured from satellites, but so far only terrestrial earthshine observations offer an alternative. Methods are based on observing the earthshine to moonshine ratio on the Moon, followed by analysis and modelling. We have designed, built and installed a new earthshine observing system at the NOAA Mauna Loa Observatory on Hawaii, and in this poster we present observations from the startup phase of operations. A comparison is made between data-reduction methods which yield earthshine intensity relative to moonshine intensity, or, directly, estimates of terrestrial albedo.