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## Comparison Between POLDER/PARASOL and CERES/AQUA Shortwave Fluxes

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Radiative Budget, essential to the monitoring of climate change, can be investigated with ERB-dedicated instruments like the Clouds and the Earth Radiant Energy System (CERES) instrument (Wielicki, 1996). On the other side, non-dedicated instruments, such as POLDER-3/PARASOL measuring narrowband radiances, can also be used advantageously to obtain shortwave albedos and fluxes (Buriez et al, 2007; Viollier et al, 2002).

We present here a comparison between the shortwave fluxes and albedos derived from POLDER-3 and those derived from CERES flying aboard Aqua, chosen as a reference.

Monthly means of shortwave fluxes computed from the measurements of the two instruments are first set side by side. They show a good agreement in the all-sky case. However, after December 2009, the values from POLDER-3 display a slight drift which coincides with the lowering of the orbit of the PARASOL satellite and the modification of its overpass time in comparison to the other satellites of the A-Train mission. In clear sky situations, greater differences between POLDER and CERES shortwave fluxes are observed, especially over land regions, and the drift increases faster after 2009.

A second comparison is presented, between instantaneous albedos. For the period of coincident observations between POLDER-3 and CERES/Aqua, there is a good correlation between both products. This correlation deteriorates when the comparison is extended after 2009, as the values given by POLDER-3 increase. This result is expected, as the albedo is a function of the Solar Zenith Angle.

The slope of the increase of instantaneous albedo values is higher than for the diurnally extrapolated, monthly averaged shortwave fluxes. This tends to show that the POLDER algorithm leading to the monthly means of diurnal shortwave albedos moderates the increase of instantaneous shortwave albedo values but it doesn't completely compensate for the effects of the drift of the instrument.