Assessment of global cloud climatologies from satellite observations

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Only satellite observations are capable to give a continuous survey of the state of the atmosphere over the whole globe. At present, long time-series (twenty years) of measured radiances are available from IR-VIS imagers and of vertical sounders. Second generation instruments with improved spatial and spectral resolution take data since the second millennium. A GEWEX activity is to assess the quality and reliability of available global cloud data sets for climate studies. Among these are ISCCP, TOVS Path-A, TOVS Path-B and UW-HIRS. Climatological averages of cloud properties, their regional, seasonal and diurnal variations as well as time series are compared.