

The Radiation Climate of the Tibetan Plateau

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Abstract

The **Tibetan Plateau**, also known as the **Qinghai - Tibetan Plateau**, is a vast elevated plateau in Central Asia. It occupies an area of around 2.3 million square kilometer, and has an average elevation of over 4,500 meters. It is the highest and biggest plateau of the world and sometimes referred to as "the roof of the world". The plateau is interspersed with mountain ranges and its atmospheric environment has a great influence on the regional as well as global climate. Therefore, there is a need to understand the energy budget of this complex region and its hydrological cycle. Radiative fluxes play an important role of this budget. At present, available information on such fluxes is very coarse and does not meet the requirements for meso-scale model forcing or evaluation in such complex terrain. We use an updated version of the University of Maryland Surface Radiation Budget (UMD-SRB) model driven with observations from METEOSAT-5 to derive radiative parameters and cloud information at high temporal and spatial resolution (hourly at 0.125°). Presented will be the analysis of the finding for a period of about five years.

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