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Wetlands and land surface waters play a crucial role in the global water and biogeochimal cycles. Since the 80's, remote sensing techniques provide quantitative estimates of open water surfaces over land. They appear to be a valuable tool to monitor natural and anthropogenic evolution of this variable over the globe. A large array of frequencies has been used to retrieve surface water over land: visible, infrared, radar and passive microwave. In this work, the passive microwave L-band acquisitions from Soil Moisture and Ocean Salinity (SMOS) mission are used to retrieve the water fraction. At this frequency, the signal is highly sensitive to surface waters. At L-band, the signal is expected to penetrate deeper in vegetation than signal in other frequency, such as visible and infrared and to some extent C-Band microwave. This asset permits to L-band signal to be more sensitive to open water under dense vegetation. In this study, authors focus on the Amazon and Congo basins. It is shown from a preliminary analysis of multi-angular, full polarized brightness temperature data that the dynamics observed over these study areas are related to the changing water bodies than the change in physical temperature. Based on this conclusion, a simple model had been built to obtain open water maps over the Amazon and Congo basin from SMOS brightness temperature at a coarse spatial resolution (25 km x 25 km) and high temporal frequency (2-days). These maps reveal the potential of L-band to monitor the evolution of open water and inundation over land. This new SMOS product is validated with visible data LandSAT. It is also compared to altimeter data (Jason-2) over the Rio Negro river. It was found that the water fraction estimated by SMOS was highly correlated with water levels measured by Jason-2 ($R > 0.98$). These maps exhibit also a phase shift of three months in the precipitation regime between the South and the North of the Amazon basin.