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The Boundary Layer Height measurement of FORMOSAT-3/C

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The radio occultation technique had been proven to be a powerful tool to measure the vertical profiles of atmosphere and ionosphere. The properties of global distribution and 24 hours coverage are very useful for users of weather prediction. The FOMOSAT-7/C-2 mission, the follow on of FORMOSAT-3/C mission, will been launched on the second quarter on 2019. The mission will provide over two times RO profiles and better quality profiles with the great improvement of RO antenna.
The planetary boundary layer (PBL) or atmospheric boundary layer (ABL) is the part of the atmosphere closest to the earth's surface where turbulent processes often dominate the vertical redistribution of sensible heat, moisture, momentum, and aerosols/pollution. The radio occultation could observe the boundary layer height and provide the information to predict the condition of air quality. In this present, we will show the ability of occultation to detect the boundary layer height, compare the result with atmospheric model and analyze the tendency of global Boundary height.