

Mini/Micro Satellite Constellation for the study of LAI coupling

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Recent Studies show that ionosphere influenced by Thunder cloud, Typhoon, Sudden Stratosphere warming, Earth quake, and so on. Possible atmosphere perturbation to generate Radio wave scintillation is still not confirmed by observation in spite of the long history of radio scintillation research. Since 1970's, no breakthrough is found in ionosphere physics. The reason is the lack of information of the atmosphere below which is needed simultaneously with ionosphere information. We propose here the satellite constellation of Pico /mini satellites combined with one /two small satellite (200-500 Kg). Pico/mini satellite should be constellation to measure basic ionosphere parameter. These are electron density, temperature, ion temperature, ion mass, electric field, and neutral wind at ionosphere height. Information on the atmospheric wind down to ground surface below 120 km should be simultaneously measured. This means that we need photometric instruments such as TIDI and SABAR accommodated in TIMED satellite or instruments to measure electromagnetic waves radiated by neutral particles. These observations can be done through international collaboration.

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