

RESEARCH ON THE SIMULTANEOUS SATELLITE-AIRBORNE-GROUND OBSERVATION EXPERIMENT PLATFORM FOR GLOBAL CHANG

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KEY WORDS: Remote sensing data, satellite-airborne-ground observation, global change, indicators, stereo observation network

ABSTRACT: Global change has been a focus issue all over the world. How to use technology methods to get and observe real time data of different level of the earth is the basis of the global change research. In this paper, we put forward to construct a satellite-airborne-ground (SAG) observation experiment platform which integrated satellite data, airborne data and ground or ocean observing data together. In different high level, with different resolution and different scanning width, we use optical or microwave sensors to get the simultaneous and same area's indicators data which sensitive to the global change. Using this SAG platform, we can realized to observe atmosphere, terrain, marine and get different indicator data with spaceborne, airborne and ground methods, we can also integrated and assimilated these data together, using regional model to research on the global change. In SAG platform, remote sensing satellite ground station of China and remote sensing airborne system can provide spaceborne and airborne data, the ground observation and ocean observation teams can provide the ground based and vessel based data, all of above can make up a whole stereo observation network. As for now, the SAG has been used in Tibet Plateau and Bohai sea experiments areas in China which are the most sensitive to the global change and obtained a lot of valuable observation data there. In the future the SAG platform will open to all over the world and will have an important role in global environment change.

EXAMPLE

APPLICATION OF SAR INTERFEROMETRY IN MONITORING THE SURFACE DEFORMATION OF SW TAIWAN

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KEY WORDS: SAR Interferometry, Surface Deformation, Taiwan, Groundwater

ABSTRACT: In this study we implement the SAR Interferometry technique for identifying the seasonal surface deformation in the SW Taiwan. The focus of our investigation is on the Pingtung plain, a tectonic valley with a high water-pumping rate. Our preliminary results show that....