



Monitoring the Earth's System with the Global Geodetic Observing System (GGOS)

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The helplessness we feel in view of natural disasters demonstrates very clearly that at present our knowledge of the Earth's complex system and our tools for the timely detection of potentially disastrous events are rather limited. Therefore, a deeper insight into the processes and interactions within this system is one of the most urgent challenges for our society. To continuously monitor changes in the Earth system and the processes causing natural disasters a global Earth observing system has to be established. The Global Geodetic Observing System (GGOS), that has been set up by the International Association of Geodesy (IAG), constitutes such an observing system concerning the contributions from geodesy. It represents an umbrella for the products derived by the IAG Services using the space geodetic techniques (VLBI, SLR/LLR, GNSS, DORIS), altimetry, InSAR, gravity missions, and in-situ measurements etc. allowing for the monitoring of the Earth system with an unprecedented accuracy of less than one part in one billion.