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## Monitoring and forecast of hydro meteorological hazards basing on data of distant assay and mathematical modeling

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Russian Federation having giant area has low concentration of land meteorological check points. Net of monitoring is not enough for effective forecast and prediction of weather dynamics and extremely situations. Under increase of extremely situations and incidents – hurricanes et al (two times from begin of XXI century) reconstruction and "perestroika" of monitoring net is needful and necessary. The basis of such a progress is distant monitoring using planes and satellites adding land contact monitoring base on efforts of existed points and stations. Interaction of contact and distant views may make hydro meteorological data and prediction more fine and significant. Tradition physical methods must be added by new biological methods of modern study. According to gotten researches animal are able to predict extremely hazards of natural and anthropogenic nature basing of interaction between biological matter and probable physical field that is under primary study. For example it was animals which forecasted dropping of Chelyabinsk meteorite of 2013. Adding of biological indication with complex of meteorological data may increase significance of hazard prediction. The uniting of all data and approaches may become basis of proposed mathematical hydro meteorological weather models.

Introduction to practice reported complex methods may decrease of loss from hydro meteorological risks and hazards and increase stability of country economics.