

Future Geo-magnetospheric Exploration Mission SCOPE

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Future Geo-magnetospheric mission SCOPE is now under study aiming at launching in 2012 (fiscal year). The main purpose of this mission is to investigate the dynamic behaviors of plasmas in the Earth's magnetosphere that range over various time and spatial scales. The formation consists of one large mother satellite and four small daughter satellites. Three of the four daughter satellites surround the mother satellite 3-dimensionally maintaining the mutual distance that ranges between several km and several thousand km (variable). The fourth daughter satellite stays near the mother satellite with the distance between several km and 100km. By this configuration, we can obtain both the macro-scale and micro-scale information about the plasma disturbances at the same time. Highly resource-demanding high-time-resolution measurements are realized by concentrating available resources to the mother satellite.