

IAF EARTH OBSERVATION SYMPOSIUM (B1)
Future Earth Observation Systems (2)

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CURRENT SITUATION AND PROPOSALS OF FUTURE EARTH OBSERVATION MISSIONS IN
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Abstract

By presenting the current development goals of space geosciences and the status of Earth observation missions in China, and combining with the future research directions of technologies that China needs to strengthen, the development strategy and proposals on the key technologies used in China's Earth observation missions in the next 10-15 years had been discussed in this article, the results showed China's Earth observation mission has always focused on the study of the earth's atmosphere, hydrosphere, lithosphere, biosphere and their interactions as a whole system, the trends of cooperation among experts and observation data sharing is becoming more and more open. At present, China has initially established a series of satellite systems including meteorology (FY), oceanographic (HY), remote sensing (GF), resources (ZY), environment and disaster mitigation (HJ), and has launched the TANSat, planned the WCOM satellite, deployed the CAS Earth Big Data Science Project, and planned to launch a number of next-generation application satellites for land, oceanographic and atmosphere. In order to obtain more comprehensive Earth system observation data, proposals of future technology development in China's Earth observation mission includes the application of InSAR, new Lidar solutions and inversion techniques, LEO-LEO occultation measurements and inversion techniques, special orbits and observation methods, such as satellite formation flying and observation technology, satellite onboard processing technology and etc. In general, these proposals can give enlightenment to those related to space engineering management, and also give contribute to the enhancement of innovation capabilities in the multiple observation methods of future Earth observation mission in China.