

China's current and future meteorological satellite systems

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The paper presents an overview and prospect of Chinese meteorological satellite program, including current status of on-orbit satellites, current satellites and ground segment developments, as well as considerations for the future developing strategies. Currently China operates polar-orbiting satellite FY-1D and geostationary satellite FY-2C as the operational configuration, and acquiring all of the overpass meteorological satellites for the operational applications and services.

FY-2C will be put into full operation in April 2005, with the new ground segment and various products. FY-2D is under development, which will be launched in 2006. FY-3A, the first satellite among the second generation of Chinese polar-orbiting satellite program is developing according to the scheduled timetable. A more extended polar-orbiting satellite ground segment and application system is under development.

For meeting the needs of China's strategic plan for the meteorological modernization, with the new priorities for the first 20 years of 21st century for the public service, national economy and security, as well as best management of national natural resources, China must further enhance its meteorological and environmental satellites program. The major future focus is on the operational polar-orbiting constellation of FY-3 series and operational geostationary constellation of FY-4 series (the second generation of China's geostationary satellite series).

The Chinese meteorological satellite program reflects the contribution of China to the space-based global meteorological and environmental satellite system of World Weather Watch (WWW) program of World Meteorological Organization (WMO), as well as the new initiative of Global Earth Observation System of Systems (GEOSS).

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