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REVIEWS AND PROSPECT OF INTERNATIONAL ELECTROMAGNETIC SEISMIC SATELLITE

Abstract

A large number of space-to-earth observation results show that there is a clear correlation between the space electromagnetic disturbances and the occurrence of earthquakes. Therefore, the application of satellite to capture electromagnetic precursors is one of the most effective means of short-term and impending earthquake prediction, which promotes the development of electromagnetic seismic satellites. Some countries have carried out satellite observations of space electromagnetic phenomena one after another. The phenomena of space electromagnetic anomalies observed before the earthquake were reported. The international electromagnetic seismic satellite projects mainly include: Russian PREDVESTNIK-E, COMPASS-II, American EARTHQUAKEFINDER, QUAKESAT-2, DEMETER developed by France, VARIANT and IONOSATS developed by Ukraine, ELMOS developed by Japan, etc. In this paper, the status of the international electromagnetic seismic satellites and the characteristics of its management on orbit are studied and compared. Meanwhile, in the field of international electromagnetic seismic satellite, the development of the upcoming satellite project, advanced satellite system and technical progress have been investigated. The development trend of satellite application in this field is discussed and prospected.