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RESEARCH ON SATELLITE ON-ORBIT MAINTENANCE TECHNOLOGY

Abstract

With the development of the international space technology and the progress of the design concept, the satellite on-orbit maintenance technology will be paid more and more attention, and the combination of the satellite on-orbit maintenance technology and space station construction will bring broad prospects for the maintenance of satellites. Based on the research about the satellite on-orbit maintenance data at home and abroad, this paper summarizes the present situation and development trend of the satellite on-orbit service, and elaborates the feasibility of the on-orbit maintenance of satellites which take the space station as a platform, then focuses on conducting a detailed analysis of the methods and key technologies of the satellite on-orbit maintenance, at last, it puts forward a new vision that the development of space station should be combined with the satellite on-orbit maintenance technology, which not only points out the direction for the development of the space station, but also makes a major initiative for the satellite on-orbit service. Taking the space station as a platform for the satellite on-orbit maintenance will have a significant impact to the development of space technology, mainly including the impact on the future development and operation mode of the spacecraft.