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RESEARCH PROGRESS IN THE TECHNOLOGY OF STRATOSPHERIC AIRSHIP

Abstract

The technology of stratospheric airship is one of the most active high-teches internationally. Since stratospheric airship can cruise or stay at any position for a long time, have a large carrying capacity, and be reusable, it plays important roles in environmental monitoring, safety monitoring in urban, theater investigation, early warning and missile defense, regional communications and global rapid strike. Thus, the world makes great attention to stratospheric airship, which is expected to be successfully developed and put into use in recent years. In this article, the features and advantages of the stratospheric airship are introduced; Developments of the technology of stratospheric airship in recent years are reviewed, which relate to the technology of overall design, aerodynamics, structural shape and material, flight dynamics and control as well as energy and propulsion and other aspects; some hot issues in the development of the technology of stratospheric airship are pointed out, which can provide a reference for China to accelerate the development of the technology of stratospheric airship.