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THE ANALYSIS OF THE APPLICATION DIRECTION AND DEVELOPMENT PROSPECT OF AIS BASED ON THE HEAD-1 MICROSATELLITE

Abstract

Abstract: The initial objective of developing Automatic identification System (AIS) satellite is to enhance the navigation safety and acquire dynamic information of watercrafts, which realizes the functions of tracking, positioning and detection of distant vessels. Followed by the above requirements, a large number of AIS satellite detecting techniques have been conducted all over the world, however, the research of its application direction and development prospect is so rare. In this article, the function, principle and system structure of the AIS microsatellite are demonstrated in detail basing on the AIS microsatellite of HEAD-1, as well as the performance characteristics of AIS microsatellite system are analyzed and summarized basing on the actual on orbit AIS data. Meanwhile, the article also focuses on the analysis of the application fields and directions of AIS in current and further stages. In addition, the development prospect and significance of it is also explored deeply.

Key words: Automatic identification System (AIS); HEAD-1 microsatellite; application direction; development prospect