

Title Abstract: Internet AIS of e-Navigation background

Topic: Navigation safety in a digital world

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Abstract:

Data is the core of e-Navigation, among which the dynamic and static data of ships play the most significant role, i.e. the collection and integration of the data is the foundation of e-Navigation. Currently, the collection of ship data for e-Navigation is mainly based on ship Automatic Identification System (AIS). Due to the limitation of ship-borne AIS equipment and the base stations, the widely existed blind spots and regions in the data have restricted the development and application of the functionalities of e-Navigation.

To solve the deficiencies of traditional AIS, e.g. lack of all ship and regions coverage, limitation of system capacity, etc., this paper proposes the concept of Internet AIS by collecting all the information from the ships that are not equipped with AIS or Beidou equipment using public resources, and integrate existing sources of ship dynamic and static information. Such a system has the advantages of large coverage, large system capacity, low cost-effect ratio, high extension, etc. It is of high value for widespread application.