



## **Improvement of the Safety at Sea through Applying the Automatic Identification System**

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Significant progress of technologies relating to safety of ships' structures and navigation safety systems, comprising techniques of communication in danger, ships' traffic control, reporting systems, positioning, navigational marking and rescue systems, has not been capable enough to avoid every collisions or crashes which may happen at sea. Analyses of accidents on the Baltic Sea, such as the tragedies of "Jan Heweliusz" and "Estonia" ferries, proved that human life rescue has been characterized with a high risk and still low effectiveness. The main reason for relatively low effectiveness of search and rescue operations is lacking easily and quickly available, precise information about positions of ships in danger. Besides, onshore centres, responsible for coordination of rescue operations, are not acquainted with numbers of people on the ships. Thus, the autonomous ships identification system, called AIS in brief, can be the element, which improves SAR effectiveness and reduces a number of probable collisions. The system is a subject of this paper. The paper content is a description of AIS characteristics, the principles of operation and functions. Describing the system being implemented for Polish water areas, the authors indicate possibilities of its application in navigation at sea.