

DOI: 10.37102/1992-4429_2022_42_04_02

AUTONOMOUS RADIO-SONAR SYSTEM TO ENSURE THE SAFETY OF NAVIGATION IN THE AREAS OF THE NORTHERN SEA ROUTE

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The Center for Strategic and International Studies in the United States notes that due to the activity of shipping in the Arctic Ocean, the number of accidents and catastrophes, primarily related to ship accidents, has increased. The effectiveness of rescue operations at sea is higher the shorter the time of arrival of rescuers in the area of detection of a facility in distress. To ensure rescue operations, there are various coastal and space systems for monitoring water areas. However, they do not fully provide operational information on the surface and underwater (subglacial) situation in remote areas and in difficult meteorological conditions. The paper substantiates the feasibility of creating an autonomous radio-sonar system to ensure the safety of navigation in the areas of the Northern Sea Route. The structure of the construction is proposed and estimates of the main parameters of the system for the conditions of the Arctic Ocean are given..

Keywords: hydroacoustic systems, sound-underwater communication, safety of navigation, illumination of the surface situation..

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Recommended citation:

Emelianenko V.F., Kim A.I., Kondrashova E.S., Malashenko A.E., Molchanov P.A. AUTONOMOUS RADIO-SONAR SYSTEM TO ENSURE THE SAFETY OF NAVIGATION IN THE AREAS OF THE NORTHERN SEA ROUTE. Underwater investigations and robotics. 2022. No. 4 (42). P. 16–24. DOI: 10.37102/1992-4429_2022_42_04_02. EDN: CYFKKB.

