Group structure of waves during the Black Sea storm on November 25-26, 2023 / Garmashov A.V., Zapevalov A.S. // Hydrometeorological research and forecasts. 2025, no. 3 (397), pp. 121-131.

The paper analyzes changes in the characteristics of the group structure of surface waves during the extreme storm in the Black Sea on November 25-26, 2023. The analysis uses wave measurement data from a stationary oceanographic platform located near the southern coast of Crimea. The group structure characteristics are calculated using two procedures based on the Hilbert transform and the SIWEH function. The temporal variations in the group factor and the number of waves in a group are constructed. The temporal variations in the group structure parameters calculated within the two procedures are similar. At the storm development stage, the group factor and the number of waves in a group changed insignificantly. At the storm weakening stage, the values of the parameters decreased. During the storm, there was a significant increase in the periods of dominant waves, which led to an increase in the group length.

Keywords: sea surface, waves, group structure, storm, Black Sea

Fig. 3. Ref. 23.

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