



## **Satellite microwave scanner radiometry data using for analyze of the new tropical cyclones generation criterion in the Atlantic Ocean**

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Investigation of the conditions resulting in generation of tropical cyclones is the important scientific and practical problem. The suggested by V.N.Pelevin temperature-humidity criterion allows estimating the possibility of tropical cyclone generation using values of ocean surface temperature, water vapor amount above the ocean surface and Coriolis parameter depended on the place latitude. All these parameters can be measured with success by microwave radiometry methods, satellite microwave scanner data giving the possibility to examine the distribution of these physical parameters over different aquatoria of World Ocean and to follow their alteration within the day. To realize this possibility the program of the satellite information processing was developed allowing to estimate such parameters as ocean surface temperature, wind velocity, water vapor amount, amount of water in liquid state (fog), presence and intensity of raining in different areas of World ocean and to obtain the values of the temperature-humidity criterion. Processing measurements of DMSP satellites system there is an opportunity to estimate the abovementioned criterion twice a day with the spatial resolution of 25÷25 km. Distribution of the suggested criterion in the tropical Atlantic was analyzed for 2002-2004, spatial and time characteristics of statistics of this distribution being revealed. Rather good correlation between the criterion values and the frequency of tropical cyclones generation taking place in Northern Atlantic at these time periods is shown.