



Estimation of oil pollution anthropogenic load of the Black sea with use by simulation and remote sensing data

S.A. Lebedev (1, 2)

(1) Geophysical Center of RAS.

(2) State Oceanographic Institute.

lebedev@wcb.ru/Fax: +7 (095) 930-0506

Ecological monitoring of a marine environment of last years has shown that alongside with processes of a destruction and deposition of pollutants not last role is played by dynamics of a marine surface, as the basic mass transfer.

The models, existing on the present time, of calculation of currents usually use oceanographic and meteorological data obtained by the contact measurement methods. The apparent successes in development of ocean remote sensing methods open a path to creation of operating systems of ecological monitoring of a marine environment.

The sea surface or dynamic topography calculated by satellite altimetry and simulation data, allows to analyse dynamics of the surface currents, which are not having brightly expressed thermal nature, as for instance, strong jet streams. In turn sea surface temperature, obtained by the satellite radiometry data, was used for more precise count of destruction processes of pollutants.

Time-space scale of the satellite data from the sea surface allows actively using them in the different models that enables with split-hair accuracy to make the physically reasonable forecast.

Surface temperature and dynamic topography data sharing realized in the model of pollutant propagation of the Black Sea, which basis by the land-and ship sources of oil pollution.

Compare of results of model calculation for synoptic surface fields has shown, that the

count of synoptic variability of surface sea temperature and dynamics results in change of "assimilative" pollutant mass up to 16.9 %. Pollution mass of the river Danube makes about 48% from general mass, and by results of calculation influencing this pollutant receives makes 45.5 %. It is conditioned first of all by carry of pollution on a water area of the sea, which increases quantities of material subjected to a destruction and deposition.

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