

Comprehensive Satellite Monitoring of Caspian Sea Conditions

Andrey G. Kostianoy, Anna I. Ginzburg, Olga Yu. Lavrova, Sergey A. Lebedev, Marina I. Mityagina, Nickolay A. Sheremet and Dmitry M. Soloviev

Abstract: Satellite data on sea surface temperature (SST), visible and infrared imagery as well as altimetry and radar measurements were used to monitor different parameters of the Caspian Sea. Interannual variability of sea level (1993–2015) and SST (1982–2015) is considered. The elements of mesoscale water dynamics (vortices, jet-like flows, fine structure of upwelling frontal zone, internal waves, etc.) are discussed and examples of oil pollution are shown.

Keywords: The Caspian Sea, Kara-Bogaz-Gol Bay, Satellite monitoring Sea level, Sea surface temperature, Water dynamics, Oil pollution