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Satellite observations of the processes in the Aral Sea.

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Regular observation from AVHRR, SeaWiFS, MODIS and ASTER sensors were used for investigation Aral sea disaster.

Thermal regime of the Sea was investigated on the base of AVHRR data. Yearly amplitude of the surface temperature variation exceeds 37^oC, with lowest winter temperature $\sim$ -7^oC due to the high salinity. Paradox phenomena “ice warmer than water” occurred in such situations. Ice regime for the last years were studied. Strong variations of the temperature (up to 5^o C) in temporal scale of few days observed in April –August were related with high evaporation and unstability of the upper layer. NCEP wind data were used for joint analyses. Wind driven tides and upwellings were investigated on the base of IR and optical data.

Dam building (summer 2005) between Large and Small seas induced desiccation of extensive areas in the Northern part of the Large sea. Thermal inertia and multichannel optical data were used for the regions of ground waters sources detection. Main sources were found in former bottom area between 18 and 21 meters level drop in Eastern part of the Large Sea.