



Early warning system - sea level along the Baltic coast of Poland

Marzenna Sztobryn, Beata Kowalska, and Ida Stanisławczyk

Institute of Meteorology and Water Management, Sea Level Forecasting Office, Gdynia, Poland
(Marzenna.Sztobrynimgw.pl)

System of the Operational Coastal Hydrology (SOCH) is the supporting system used in Maritime Hydrological Forecasting Office (Poland, Gdynia) to short-time forecast and early warning. Maritime Hydrological Forecasting Office plays the role of national sea level survey of Poland. The storm surges and the flood waves on the rivers Wisla and Odra are the most dangerous hazard of Polish coast of Southern Baltic Sea including the Gulf of Gdansk and Pomerania Bay (area of hydrological protection), and especially for agglomerations as Szczecin and Gdansk located close to river estuaries. SOCH is the modernization (in 2009) of the system working every day in IMGW since 1996. SOCH consists 2 main parts : water level and sea ice. First subsystem groups the programs to hydrological data acquisition, checking, coding, decoding, transmission and processing, including the preparation data-input to mathematical models as well as the work of mathematical, forecasting models. Results of these models are the base to formulate the warnings against the storm surge, sea level falls as well as the dangerous water level in rivers' estuaries. Second subsystem works with sea ice; it gives the support for preparation the sea ice bulletin and sea ice charts.