



Operational oil drift modeling in Germany: Status and recent developments

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Oil spills near or in the German economic zone caused by ship averages or leakage from oil platforms form a permanent risk for the ecologically very sensitive German coastal area. The official agencies for maritime emergency response rely on quick and accurate oil drift forecasts to co-ordinate oil spill response measures. The Federal Maritime and Hydrographic Agency in Germany (BSH) provides this service 7x24h and is permanently improving forecast skills by the implementation of new technologies. We present a recently developed fully automatic oil drift forecast system, which provides drift simulations without any manual intervention of model operators once oil spills in airborne or satellite born data have been detected. This system is currently tested and combined with Seatrack Web (STW). STW is the official HELCOM drift forecasting system with SINTEF oil weathering technology that uses currents and winds from operational circulation models to compute the drift of substances. It also includes AIS and satellite data, which helps detection of pollutions and the identification of polluters. STW is the successor of the former oil drift model of BSH BSHdmod.L, which has been used for backward and forward simulations of oil, other liquids and drifting objects since the 1990s. We present recent developments of STW to enlarge the model region to the whole North Sea and to nested meshes as well.