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Recent developments of the TOPAZ Arctic system

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The TOPAZ North Atlantic system has been running in near-real time weekly forecasts since January 2003 using the HYCOM model and the Ensemble Kalman Filter (EnKF), TOPAZ is as far as we know the only ocean forecast system running in real-time a dynamically evolving error covariance (Kalman filter type). It assimilates sea level anomalies from CLS, sea surface temperatures from NOAA, sea-ice concentrations from NSIDC (AMSR-E), sea-ice drift from CERSAT/Ifremer and Argo temperature and salinity profiles from Coriolis/Ifremer. The third version of the system is now exploited within met.no's operational suite with a horizontal resolution between 11 km and 16 km. The forecast numerical data are served on OPEnDAP/THREDDS.

The presentation will describe recent developments of the modelling and assimilation system and plans for the 20-years reanalysis to be carried out within MyOcean as well as the users applications of the TOPAZ system. TOPAZ contributes to the Arctic ROOS and EuroGOOS.