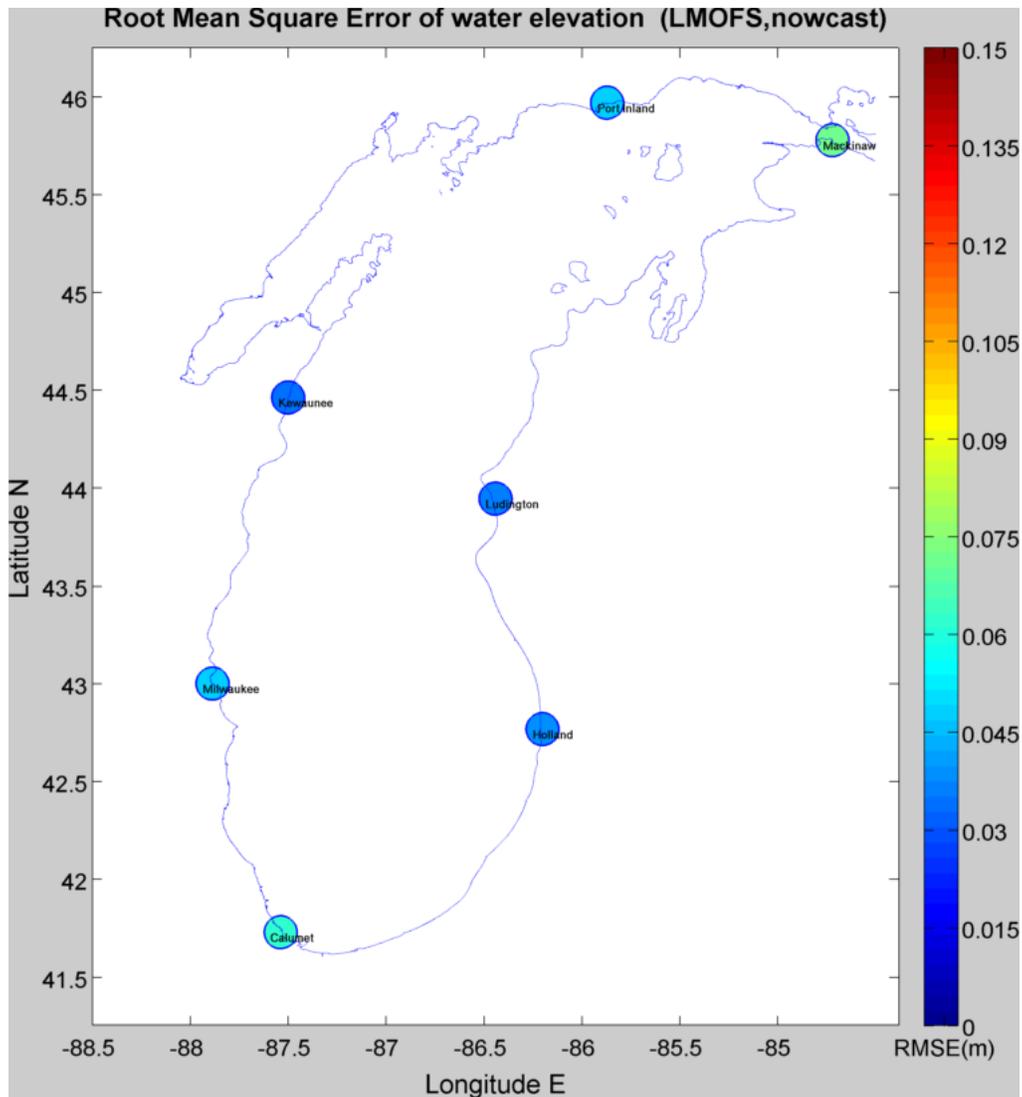


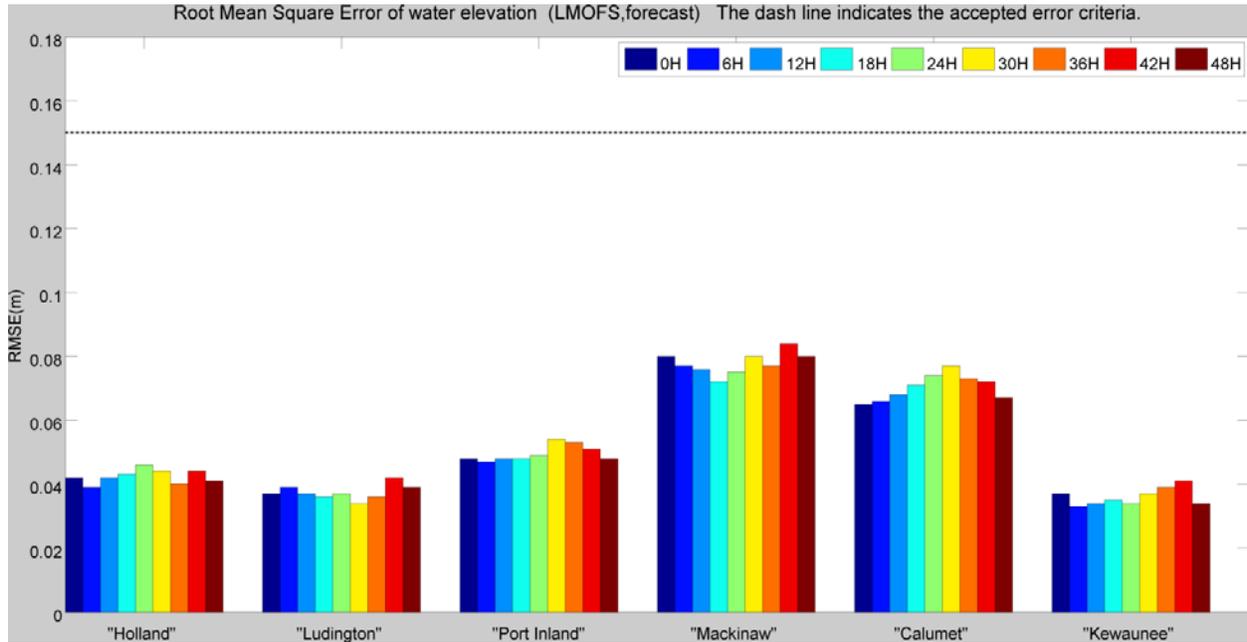
The Lake Michigan Operational Forecast System (LMOFS) uses the Princeton Ocean Model (POM). It became operational in 2002 at CO-OPS's linux server, and moved to NCEP's Central Computing System (CCS) in 2009 to provide hourly nowcast and four times a day forecast guidance of water levels and water temperature. CO-OPS produces LMOFS uncertainty estimates by running the NOS standardized skill assessment tools (Hess et al., 2003; Zhang et al. 2009) for the LMOFS operational model output. The accepted error criteria for skill assessment are: water level 0.15m, current speed 0.26m/s, current direction 22.5 degree, temperature 3.0 °C and salinity 3.5 psu.

The figures below indicate the Root Mean Square Error (RMSE) of LMOFS water levels, currents, water temperature, and salinity nowcasts and forecasts from 9/1/2014 to 9/30/2014.

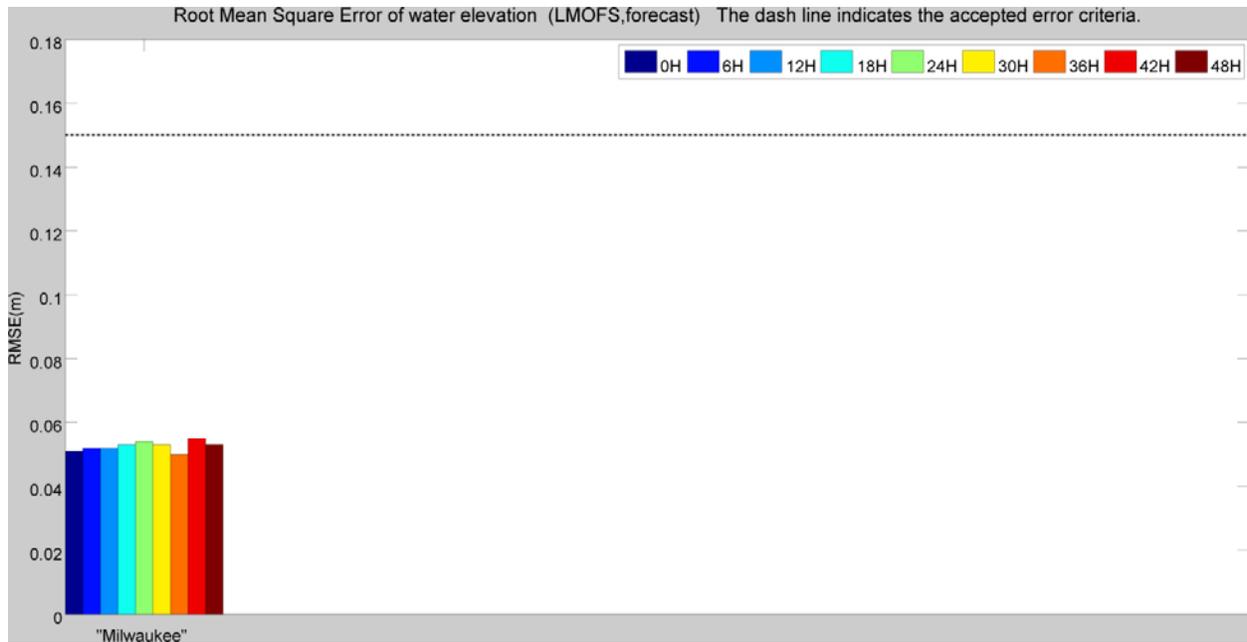
Nowcast Water Level



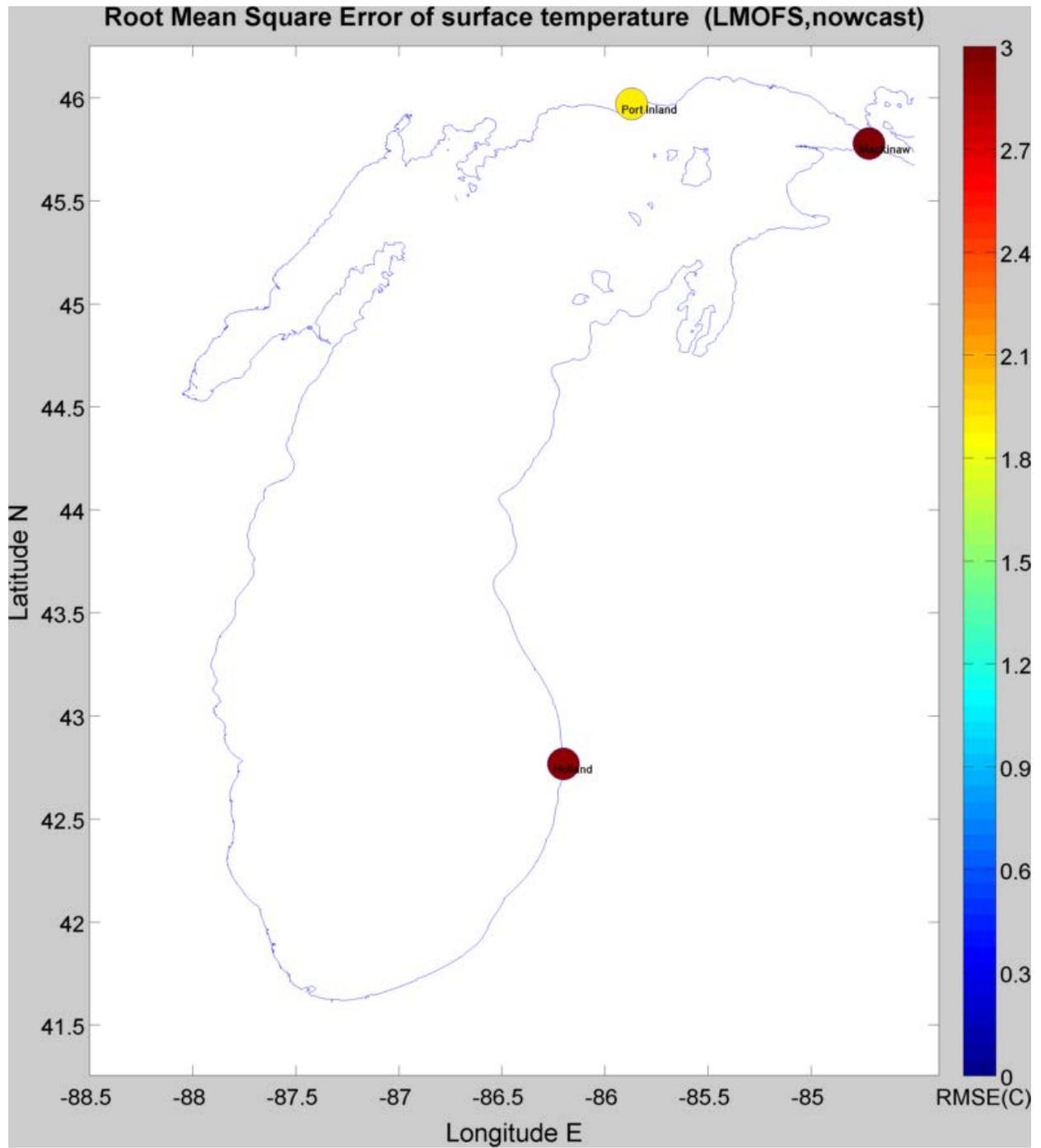
Forecast Water Level (1)



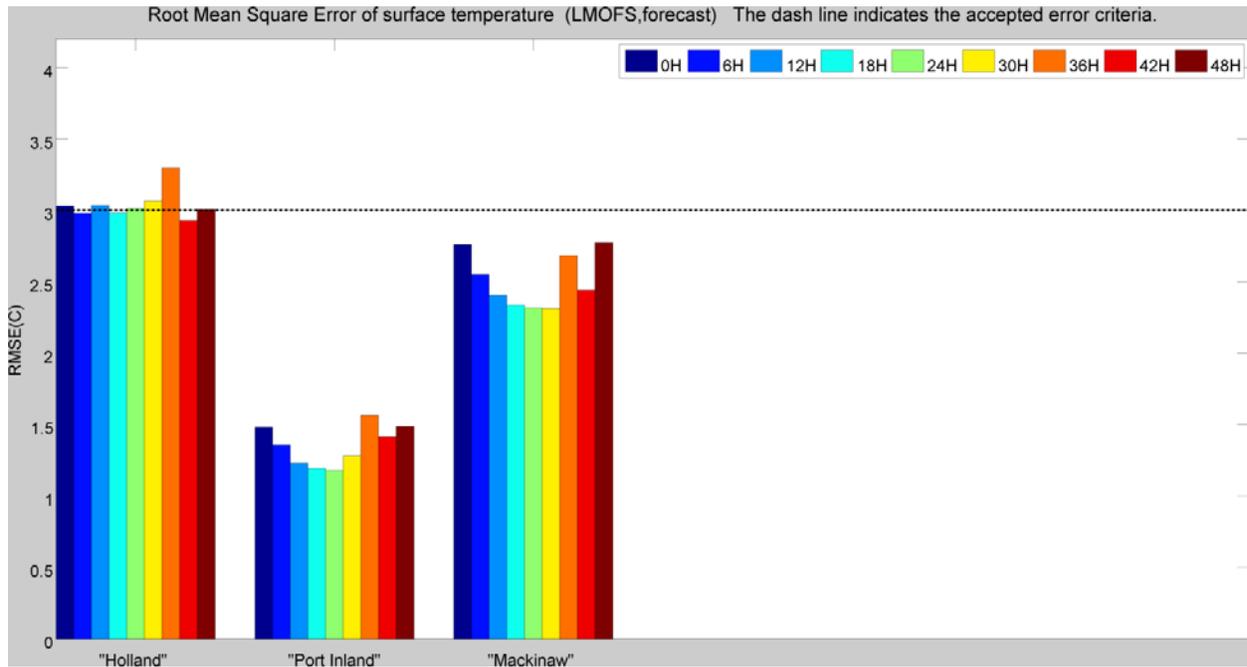
Forecast Water Level (2)



Nowcast Surface Temperature



Forecast Surface Temperature



REFERENCES

Hess, K.W.; Gross, T.F.; Schmalz, R.A.; Kelley, J.G.W.; Aikman, F.; Wei, E.; Vincent, M.S. *NOS Standards for Evaluating Operational Nowcast and Forecast Hydrodynamic Model Systems*; NOAA Technical Report NOS CS 17; National Oceanic and Atmospheric Administration: Silver Spring, MD, USA, 2003.

Zhang, A., Hess, K., Wei, E. and Myers, E., 2009. Implementation of model skill assessment software for water level and current in tidal regions, NOAA Technical Report, NOS CS 24.