**The eReefs operational coastal ocean prediction system of the Bureau of Meteorology**

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The Bureau of Meteorology developed an operational ocean prediction system over the 2014-2017 period. As part of the development state of the art 10 year reanalyses of the Great Barrier Reef (GBR) and a 2 year long high resolution hindcast dataset have been developed. Currently a routine real-time ocean forecast of the GBR is available to the Australian Community every 6 hours. The system attempts to provide the best estimate of the physical system with a particular focus on freshwater fluxes and passive tracers. This has been achieved by implementing a state of the art Ensemble Optimum Interpolation (EnOI) data assimilation system. The products are available via internet data servers and graphical web-viewers. Here we will report on the design and performance of the eReefs prediction system and further comment on potential future developments in the area such as test beds for using a non-stationary ensemble i.e. moving towards an Ensemble Kalman Filter (EnKF) system.