

Steps Towards the Australian National Shelf-seas Reanalysis

Marton Hidas, Roger Proctor, Peter Blain, Sebastien Mancini, and Benedicte Pasquer
Integrated Marine Observing System, University of Tasmania, Hobart, Australia (marty.hidas@utas.edu.au)

Sustained observations, accessible data, analysis and interpretation are needed to underpin marine modelling systems used to advise decision makers in government and industry. In Australia, a number of projects are under way to develop such services, ultimately working towards a 25-year National Shelf-seas Reanalysis (ANSR), and a national coastal ocean forecasting system.

The Integrated Marine Observing System (IMOS) has carried out an on-going, collaborative observing program for 10 years. Its data products, together with public data from other sources, are accessible through the Australian Ocean Data Network (AODN).

The Marine Virtual Laboratory (MARVL) project has built an online tool to facilitate the creation of regional oceanographic models. Selecting one of the available modelling systems and defining the spatial and temporal extents of interest, a researcher can download a customised bundle of initial conditions, boundary forcing and observations, ready for model execution. Publicly available observations in the region of interest are automatically obtained from the AODN and included in the bundle.

The next phase of the project will build on MARVL's capabilities to develop services to structure initial and forcing conditions for model simulations, and to prepare 'model-ready' observations for ingestion in data assimilation schemes. Initial steps have been taken to assemble all available temperature and salinity profiles on the Australian continental shelf and provide gridded statistics.