

Supplement of Geosci. Model Dev., 7, 2613–2638, 2014
<http://www.geosci-model-dev.net/7/2613/2014/>
doi:10.5194/gmd-7-2613-2014-supplement
© Author(s) 2014. CC Attribution 3.0 License.



Supplement of

Recent development of the Met Office operational ocean forecasting system: an overview and assessment of the new Global FOAM forecasts

E. W. Blockley et al.

Correspondence to: E. W. Blockley (ed.blockley@metoffice.gov.uk)

Table 1. Anomaly correlations for each of the modelled SSH, SST and the magnitude of near-surface velocity fields (speed) against the corresponding gridded observational products for all the 2D spatial maps shown in Fig. 1. Correlations are calculated over all ocean points and anomalies are calculated relative to the WOA2001 1/4 degree analysis (Boyer et al., 2005) for SST, the CNES09 MDT (Rio et al., 2011) for SSH and the GDP drifter climatology (Lumpkin and Garraffo, 2005) for the speed.

	SSH	SST	CRT
v12	0.89	0.92	0.92
v11	0.86	0.87	0.82
free	0.13	0.61	0.35

References

- 5 Boyer, T., Levitus, S., Garcia, H., Locarnini, R. A., Stephens, C., and Antonov, J.: Objective analyses of annual, seasonal, and monthly temperature and salinity for the World Ocean on a 0.25° grid, *Int. J. Climatol.*, 25, 931–945, doi: 10.1002/joc.1173, 2005.
- Lumpkin, R. and Garraffo, Z.: Evaluating the decomposition of Tropical Atlantic drifter observations, *J. Atmos. Ocean. Techn.*, 22, 1403—1415, 2005.
- 10 Rio, M.-H., Guinehut, S., and Larnicol, G.: New CNES-CLS09 global mean dynamic topography computed from the combination of GRACE data, altimetry, and in situ measurements, *J. Geophys. Res.*, 116, C07018, doi:10.1029/2010JC006505, 2011.

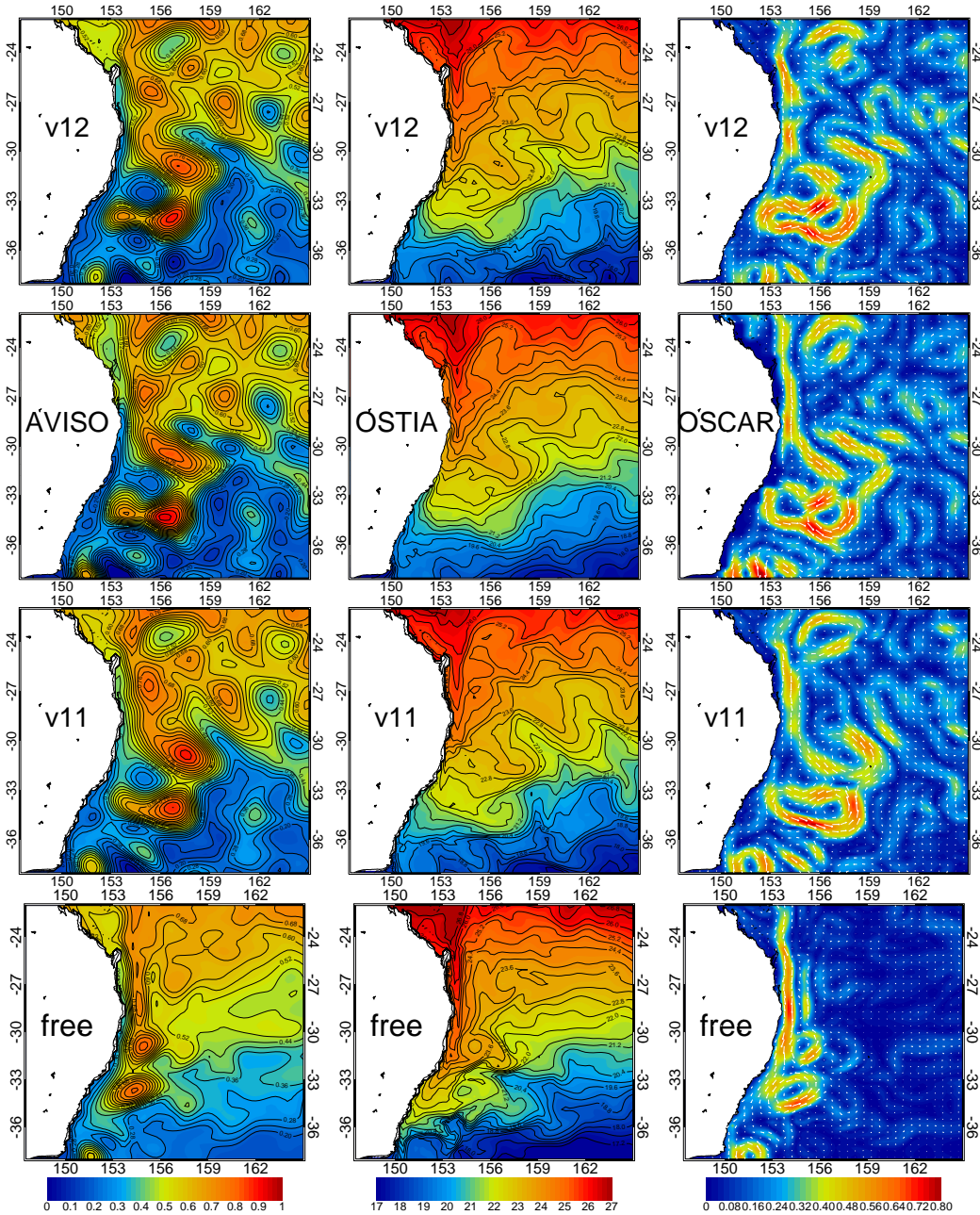


Figure 1. An array of monthly-mean gridded contour plots over the East Australia Current region (longitude: 148° E – 165° E; latitude: 22° S – 38° S) for December 2011. Sea surface height (left column : m) and temperature (centre column : °C) are plotted as coloured contours and overlaid with black contour lines. Surface currents (right column : m s⁻¹) are displayed as coloured contours of current intensity (speed) with white arrows overlaid to show direction. Output from the v12, v11 and free trials are plotted in the 1st, 3rd and 4th rows respectively whilst the 2nd row plots show the gridded observational products: AVISO SSH, OSTIA SST and OSCAR surface currents. Model currents shown (i.e. v12, v11 and free) are total integrated velocity over the top 15 m. Anomaly correlations for each of the modelled fields against the corresponding gridded observations can be found in Table 1.