

Supplemental Materials Table 1: OCMIP-2 Salient model features (after *Dutay et al. [2002]*)

	AWI	CSIRO	IGCR	IPSL	LLNL	MIT	MPIM	NERSC	NCAR	PIUB	PRINCE	SOC	UL
Horizontal Resolution (lon x lat)	5°x4°-2.5°x2°	5.6°x3.2°	4°x4°	2°x1.5°-0.5°	4°x2°	2.8°x2.8°	5°x5°	2°x3.2°	3.6°x1.8°-0.8°	Zonally averaged basin	3.75°x4.5°	5°x4°-2.5°x2°	3°x3°
Seasonality	No	Yes	No	Yes	Yes	Yes	Yes	Yes	Yes	No	Yes	Yes	Yes
Surface B.C.	Adjusted	T, S seasonal restoring	T, S annual restoring	Flux + restoring	Bulk formula	Flux + restoring	Restoring	Bulk formula	Bulk formula	Coupled to atmospheric EBM	T Restoring, S restoring + flux	Restoring + flux	Bulk formula
Lateral subgrid scale mixing	ISOP	ISOP+GM	HOR	ISOP+GM	ISOP+GM	ISOP+GM	MOR	ISOP	ISOP+GM	HOR	ISOP+GM	ISOP+GM	HOR
Mixed layer				TKE				TKE	KPP			Krauss and Turner	TKE
Sea-ice model					Yes		Yes		S restoring	Brine rejection			Yes
Off/on-line	Off	On	Off	Off	On	On	Off	On	On	On	On	On	On

EBM: Energy Balance Model; AMIP: Atmospheric Intercomparison Project; HOR: Horizontal parameterization; ISOP: Isopycnal parameterization; GM: Gent and McWilliams parameterization; TKE: Turbulent Kinetic Energy closure; KPP: non-local boundary layer parameterization.

Dutay, J.-C., J.L. Bullister, S.C. Doney, J.C. Orr, R. Najjar, K. Caldeira, J.-M. Campin, H. Drange, M. Follows, Y. Gao, N. Gruber, M.W. Hecht, A. Ishida, F. Joos, K. Lindsay, G. Madec, E. Maier-Reimer, J.C. Marshall, R.J. Matear, P. Monfray, G.-K. Plattner, J. Sarmiento, R. Schlitzer, R. Slater, I.J. Totterdell, M.-F. Weirig, Y. Yamanaka, and A. Yool, Evaluation of ocean model ventilation with CFC-11: Comparison of 13 global ocean models, *Ocean Modelling*, 4, 89-120, 2002.