Mercator Ocean system reference	Domain	Resolution	Model	Assimilation	Assimilated observations
PSY3V2R1	Global	Horizontal: 1/4° Vertical: 50 levels	ORCA025 NEMO 1.09 LIM2, bulk CLIO 24 h atmospheric forcing	SAM (SEEK)	RTG SST SLA T/S vertical profiles
PSY3V3R1	Global	Horizontal: 1/4° Vertical: 50 levels	ORCA025 *NEMO 3.1* *LIM2 EVP, bulk CORE* *3 h atmospheric forcing*	SAM (SEEK) *IAU* *3D-VAR bias correction*	RTG SST SLA T/S vertical profiles
PSY3V3R3	Global	Horizontal: 1/4° Vertical: 50 levels	ORCA025 NEMO 3.1 LIM2 EVP, Bulk CORE 3 h atmospheric forcing *New parameterization of vertical mixing* *Taking into account ocean color for depth of light extinction* *Large-scale correction to the downward radiative and precipitation fluxes* *Adding runoff for iceberg melting* *Adding seasonal cycle for surface mass budget*	SAM (SEEK) IAU 3D-VAR bias correction *Obs. errors higher near the coast (for SST and SLA) and on shelves (for SLA)* *MDT error adjusted* *Increase in Envisat altimeter error* *QC on T/S profiles* *New correlation radii*	*AVHRR + AMSRE SST* SLA T/S vertical profiles *MDT CNES-CLS09 adjusted* *Sea mammal T/S vertical profiles*