

1 MPAS-Ocean Task List

Task	lead (support)	reviewer	completed
convert sw core to isopycnal ocean	Mark	Todd	3/15/10
z-level flat bottom	Mark	Todd	6/1/10
∇^2 and ∇^4 diffusion	Todd	Mark	9/1/10
initial POP vs MPAS-O comparison	Mark	NA	9/15/10
high-order horizontal advection	Todd	Mark	10/14/10
error: wrong number of total cells	Mark	NA	10/14/10
z-level with topography	Mark	Todd	11/16/10
Nonlinear EOS	Mark	Todd	11/16/10
small timestep, x1 NAN issues	Mark (Mat, Todd)	NA	11/29/10
x1 and x0.1 quad mpas and POP runs	Mark (Mat)	NA	12/8/10
high rez hex z-level mpas runs	Todd	NA	12/8/10
high-order vertical advection	Mark	Todd	2/25/11
Pac Phil & implicit vertical mixing	Mark	Mat	5/26/11
set up hex 15, 30, 60km mesh on conejo	Todd	NA	5/26/11
split explicit timestepping	Mark	Todd	10/26/11
code module reorg	Doug	NA	10/26/11
module timers	Doug	NA	10/26/11
new SW core: PV, div, h prog. var.	Todd		underway
performance profiling	Todd, Doug, Mark		underway
Limited domain Boundary Cond.	Todd, Chris Jeffery		underway
quasi-production sims 120, 60, 30, 15km	Todd, Mark		underway
variable rez meshes: N Atl & Arctic	Doug, Todd		underway
z^* vertical coordinate	Jonathan, Todd, Mark		underway
scale ∇^2 and ∇^4 coef w mesh	Todd		underway
mpas with multiple blocks per processor	Doug		underway
diagnostics: time-averaged fields	Mark		underway
mpas-o coupled in CESM	Todd, Phil, Duda		
diagnostics: MOC, through flows			
performance: update boundary less, Btr subcycle			
performance: update tracers less often			
planning of test suite			
Analysis of POP versus MPAS			
Reference Manual			
time varying surface forcing*			
GM horizontal mixing*	Todd		
KPP vertical mixing*			
variable GM*			

* May not be needed for first papers