MOM-SIS / ACCESS-OM2 MOM5 namelist comparisons

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Latest version is here: https://github.com/aekiss/namelist-check

- GFDL_ESM2M_input-cut.nml is GFDL_ESM2M_input.nml from Steve's email 2017-10-18 with irrelevant atmos/ESM namelist groups cut out.
- MOM_SIS_TOPAZ_input.nml is from MOM_SIS_TOPAZ/INPUT/ in /g/data/ua8/mom/test_data/MOM_SIS_TOPAZ.input.tar.gz, dated 2009-12-16 10:44
- fabio_momsis1_input.nml is from Fabio's email 2017-09-20, derived from Paul's 1/4 degree (I think)
- paul_momsis025_input.nml is from Paul's email 2017-09-20
- fanghua_momsis01v5KDS75_WOA13_input.nml is /g/data3/hh5/tmp/cosima/mom01v5/KDS75_WOA13/output000/input.nml
- russ-accessom-mom4p1-input.nml is an old MOM4p1 ACCESS-OM input from years ago (Russ' email 2017-10-17)
- hogg_accessom2_1deg_jra55_ryf_input.nml is /short/v45/amh157/access-om2/control/1deg_jra55_ryf/ocean/input.nml
- kiss_accessom2_025deg_jra55_ryf_input.m.nml is /short/v45/aek156/access-om2/control/025deg_jra55_ryf/ocean/input.nml
- hogg_accessom2_01deg_jra55_ryf_input.nml is /short/v45/amh157/access-om2/control/01deg_jra55_ryf/ocean/input.nml
- kiss_accessom2_025deg_jra55_ryf_logfile.000000.out is the MOM output file /short/v45/aek156/access-om2/control/025deg_jra55_ryf/archive/output144/ocean/logfile.000000.out, modified by deleting lines not starting with whitespace (regex replace ^[^\s]+.*\$ with nothing), replacing salt_flxmh_flux with salt_flx mh_flux, removing ascii gremlins from end of FIELDS_IN and FIELDS_OUT lines, and deleting the copy of input.nml from the start (to work around bug in nmltab.py). So this shows the values specified in input.nml, plus default values for those not specified in input.nml.

Other useful info:

• Griffies et al. (2015) p973

Tables auto-generated by nmltab (https://github.com/aekiss/nmltab). Missing variables are shown as blank. Variables are weblinks to source code searches.

References

Griffies, S. M., and Coauthors, 2015: Impacts on ocean heat from transient mesoscale eddies in a hierarchy of climate models. *Journal of Climate*, **28 (3)**, 952–977, doi:10.1175/jcli-d-14-00353.1, URL http://dx.doi.org/10.1175/JCLI-D-14-00353.1.

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1 Differences between new ACCESS-OM2 configs

Only differences are shown. We aim to make this list as short as possible...

Group	Variable	new_acces- som2 1deg jra55_ryf input.nml	new_acces- som2 025deg jra55_ryf input.nml	new_acces- som2 01deg jra55_ryf input.nml
&auscom_ice_nml	dt_cpl	3600 True	1800	600
&bg_diff_lat_dependence_nml	redsea_gulfbay_sfix bg_diff_eq	$\frac{\text{True}}{1 \times 10^{-6}}$		
	lat_low_bgdiff	20.0		
&fms_io_nml	fileset_write threading_write	'single' 'single'	'multi' 'multi'	'multi' 'multi'
&ocean_adv_vel_diag_nml	diaq_step	4320	4320	576
&ocean_barotropic_nml	diag_step	4320	4320	576
&ocean_lapgen_friction_nml	bottom_5point	True		
	k_smag_aniso k_smag_iso	0.0 0.0		
	ncar_only_equatorial	True		
	restrict_polar_visc	True		
	restrict_polar_visc_lat restrict_polar_visc_ratio	60.0 0.35		
	use_this_module	True	False	False
	vconst_1	0.000 000 8		
	vconst_2	0.0		
	vconst_3 vconst_4	$0.8 \\ 5 \times 10^{-9}$		
	vconst_5	3 ~ 10		
	vconst_6	300 000 000.0		
	vconst_7	100.0		
	vel_micom_iso viscosity_ncar	0.1 True		
	viscosity_ncar_2000	False		
	viscosity_ncar_2007	True		
	viscosity_scale_by_rossby	True		
&ocean_mixdownslope_nml	viscosity_scale_by_rossby_power debug_this_module	100.0 False		
accean_mixdownstope_mint	mixdownslope_mask_gfdl	False		
	mixdownslope_npts	4		
	read_mixdownslope_mask use_this_module	False	F-1	F-1
&ocean_model_nml	dt_ocean	True 3600	False 1200	False 150
Woccur_moder_mit	io_layout	4, 3	6,5	10, 15
	layout	16, 15	48,40	80,75
&ocean_nphysics_nml	use_nphysicsc use_this_module	True True	False False	False False
&ocean_nphysics_util_nml	agm	600.0	100.0	100.0
account, p. 1) sees a contract of the contract	agm_closure_eady_ave_mixed	True	20010	200.0
	agm_closure_eady_cap	True		
	agm_closure_eady_smooth_horz agm_closure_eady_smooth_vert	True True		
	agm_closure_eden_gamma	0.0		
	agm_closure_eden_greatbatch	False		
	agm_closure_grid_scaling	True	4000	4000
	agm_closure_min agm_damping_time	50.0 45.0	100.0	100.0
	agm_smooth_space	False		
	agm_smooth_time	False		
	drhodz_mom4p1	True	False	False
&ocean_nphysicsc_nml	nphysics_util.zero_init bv_freq_smooth_vert	True True		
&ocean_nphysicsc_nint	bv_ireq_sinouti_vert bvp_bc_mode	2		
	bvp_min_speed	0.1		
	bvp_speed	0.0 False		
	debug_this_module do_qm_skewsion	False True		
	do_neutral_diffusion	True		
	epsln_bv_freq	1×10^{-12}		
	gm_skewsion_bvproblem	True		
	gm_skewsion_modes neutral_eddy_depth	False True		
	neutral_eddy_deptri neutral_physics_limit	True		
	number_bc_modes	2		
	regularize_psi	False		
	smax_psi smooth_psi	0.01 True		
	Siliootn_psi	irue		

Group (continued)	Variable	new_acces- som2 1deg jra55_ryf input.nml	new_acces- som2 025deg jra55_ryf input.nml	new_acces- som2 01deg jra55_ryf input.nml
	tmask_neutral_on	True		
	turb_blayer_min	50.0		
	use_this_module	True	False	False
&ocean_solo_nml	days	1460	31	30
	dt_cpld	3600	1200	600
&ocean_sponges_tracer_nml	damp_coeff_3d			False
&ocean_tracer_diag_nml	diag_step	4320	4320	576
&ocean_velocity_diag_nml	diag_step	4320	4320	576
· · · ·	energy_diag_step	4320	4320	5760
&xgrid_nml	do_alltoall			True
	do_alltoallv			True

2 Changes in new ACCESS-OM2 configs

2.1 accessom2_1deg_jra55_ryf

Only differences are shown (inconsequential where use_this_module = .false. - see complete list below).

Group	Variable	original/ hogg_acces- som2 1deg jra55_ryf input.nml	new_acces- som2 1deg jra55_ryf input.nml
&diag_manager_nml	debug_diag_manager	шрислин	True
	issue_oor_warnings	False	True
&fms_nml	domains_stack_size		115200
&monin_obukhov_nml	neutral		True
&mpp_io_nml	deflate_level shuffle		5 1
&ocean_albedo_nml	ocean_albedo_option		2
&ocean_barotropic_nml	zero_tendency		False
&ocean_bbc_nml	bmf_implicit		True
	cdbot_hi		0.007
	cdbot_law_of_wall	False	
	cdbot_roughness_length		False
	cdbot_roughness_uamp		True
Second has often and	uresidual	Falsa	0.05
&ocean_bbc_ofam_nml	read_tide_speed uresidual2_max	False 1.0	
&ocean_bihgen_friction_nml	bottom_5point	True	False
- Control of the Cont	ncar_boundary_scaling_read	nuc	True
	vel_micom_bottom	0.01	0.0
	vel_micom_iso	0.04	0.0
	visc_crit_scale	0.25	1.0
&ocean_convect_nml	convect_full_scalar	False	
	convect_full_vector	True	40700
&ocean_density_nml	neutralrho_max	1030.0	1038.0
&ocean_domains_nml	neutralrho_min	1020.0 10	1028.0
&ocean_form_drag_nml	max_tracers cprime_aiki	0.6	<u> </u>
&ocean_frazil_nml	debug_this_module	0.0	False
docum_nuzic_init	frazil_only_in_surface		False
	freezing_temp_preteos10		True
	freezing_temp_simple	True	False
&ocean_grids_nml	debug_this_module	True	False
	read_rho0_profile	False	
&ocean_increment_eta_nml	days_to_increment	0	
	fraction_increment	1.0	
&ocean_increment_tracer_nml	secs_to_increment	1800 0	
&ocean_increment_tracer_nint	days_to_increment fraction_increment	1.0	
	secs_to_increment	1800	
&ocean_increment_velocity_nml	days_to_increment	0	
	fraction_increment	1.0	
	secs_to_increment	1800	
&ocean_lapgen_friction_nml	viscosity_scale_by_rossby_power	4.0	100.0
&ocean_momentum_source_nml	rayleigh_damp_exp_from_bottom		False
&ocean_operators_nml	use_legacy_div_ud		False
&ocean_overexchange_nml	overexch_check_extrema	False	
&ocean_overflow_nml	debug_this_module	False	Ealco
&ocean_overflow_ofp_nml &ocean_pressure_nml	use_this_module zero_pressure_force		False False
&ocean_rivermix_nml	river_diffuse_salt	False	True
Goodana (Crimpania	river_diffuse_satt	False	True
&ocean_riverspread_nml	use_this_module	True	False
&ocean_rough_nml	rough_scheme		'beljaars'
&ocean_sbc_nml	calvingspread		False
	do_bitwise_exact_sum		False
	do_flux_correction		False
	land_model_heat_fluxes	0.0	False
	max_ice_thickness salt_correction_scale	8.0	0.0 0.0
	salt_correction_scate salt_restore_tscale	15.0	60.0
	temp_restore_tscale	-1.0	-10.0
	use_full_patm_for_sea_level	1.0	False
	waterflux_tavg	False	
	zero_net_salt_correction		False
	zero_net_water_correction		False

Group (continued)	Variable	original/ hogg_acces- som2 1deg jra55_ryf input.nml	new_acces- som2 1deg jra55_ryf input.nml
&ocean_sbc_ofam_nml	restore_mask_ofam	False False	
&ocean_shortwave_csiro_nml	river_temp_ofam read_depth	True	
	use_this_module	True	False
&ocean_shortwave_gfdl_nml	zmax_pen optics_morel_antoine	7000	False
	read_chl	False	True
	sw_pen_fixed_depths use_this_module	False False	True
	zmax_pen	200.0	300.0
&ocean_shortwave_nml	use_shortwave_csiro	True	False
&ocean_sigma_transport_nml	use_shortwave_gfdl sigma_advection_on	False False	True
doccur-signaturisports into	sigma_advection_sgs_only	False	
	sigma_diffusion_on	True	
	sigma_diffusivity_ratio sigma_just_in_bottom_cell	$1 imes 10^{-6}$ True	
	sigma_umax	0.01	
	smooth_sigma_thickness	True	
	smooth_sigma_velocity smooth_velmicom	True 0.2	
	thickness_sigma_layer	100.0	
	thickness_sigma_max	100.0 100.0	
	thickness_sigma_min tmask_sigma_on	False	
	tracer_mix_micom	True	
	use_this_module vel_micom	True 0.05	False
&ocean_solo_nml	debug_this_module	False	
&ocean_sponges_tracer_nml	damp_coeff_3d	False	
&ocean_submesoscale_nml	coefficient_ce smooth_advect_transport		0.05 True
	smooth_advect_transport_num		4
	smooth_psi		True
	smooth_psi_num submeso_advect_flux		3 False
	submeso_advect_limit		True
	submeso_advect_upwind		True
	submeso_advect_zero_bdy submeso_diffusion		True False
	submeso_diffusion_biharmonic		True
	submeso_diffusion_scale submeso_limit_flux	True	10.0
	submeso_skew_flux	iiue	True
	use_psi_legacy		False
&ocean_tempsalt_nml	pottemp_equal_contemp s_max	55.0	True 70.0
	S_min	-1.0	0.0
	s_min_limit	0.0	2.0
	t_min t_min_limit	−5.0 −2.0	-20.0 -5.0
	temperature_variable	'conservative	'potential
O accordiations and	total the constant	temp'	temp'
&ocean_thickness_nml	initialize_zero_eta read_rescale_rho0_mask	False False	
	rescale_mass_to_get_ht_mod		False
	rescale_rho0_basin_label rescale_rho0_mask_gfdl	7.0 False	
	rescale_rho0_value	0.75	
	thickness_dzt_min	1.0	
&ocean_topog_nml	thickness_dzt_min_init min_thickness	2.0 25.0	
&ocean_tracer_advect_nml	advect_sweby_all	True	
	async_domain_update	True	<u>.</u> .
&ocean_tracer_diag_nml	read_basin_mask tracer_conserve_days	1.0	False 30.0
&ocean_velocity_nml	tracer_conserve_days truncate_velocity	True	False
•	zero_tendency_explicit_a		False
	zero_tendency_explicit_b zero_tendency_implicit		False False
&ocean_vert_kpp_mom4p0_nml	use_this_module	False	raise
&ocean_vert_kpp_mom4p1_nml	diff_con_limit	0.1	
	visc_con_limit	0.1	

Group (continued)	Variable	original/ hogg_acces- som2 1deg jra55_ryf input.nml	new_acces- som2 1deg jra55_ryf input.nml
&ocean_vert_mix_nml	afkph_00	0.65	
Wooding to the manufacture of th	afkph_90	0.75	
	bryan_lewis_lat_depend	True	False
	bryan_lewis_lat_transition	35.0	
	dfkph_00	1.15	
	dfkph_90	0.95	
	hwf_diffusivity		False
	hwf_min_diffusivity		2×10^{-6}
	hwf_n0_2omega		20.0
	linear_taper_diff_cbt_table	False	
	sfkph_00	4.5×10^{-5}	
	sfkph_90	4.5×10^{-5}	
	zfkph_00	250 000.0	
	zfkph_90	250 000.0	
&ocean_vert_tidal_nml	background_diffusivity	5×10^{-6}	0.0
	decay_scale	300.0	500.0
	drag_dissipation_use_cdbot	42	True
	drhodz_min	1×10^{-12}	1×10^{-10}
	max_drag_diffusivity	0.01	
	roughness_scale	20 000.0	12 000.0
	shelf_depth_cutoff	160.0	-1000.0
	use_legacy_methods		False
&ocean_xlandinsert_nml	verbose_init_	True	
&ocean_xlandmix_nml	verbose_init	True	
0 1	xlandmix_kmt	True	47
&xgrid_nml	nsubset		16

$2.2 \quad accessom2_025 deg_jra55_ryf$

Only differences are shown (inconsequential where use_this_module = .false. - see complete list below). We aim to make this list as short as possible, as this is where we've invested most SU...

Group	Variable	original/ kiss_acces- som2 025deg jra55_ryf	new_acces- som2 025deg jra55_ryf input.nml
&auscom_ice_nml	dt_cpl	input.nml 1200	1800
&duscom_ne_nimit &fms_io_nml	fileset_write	'single'	'multi'
XIIII3_IO_IIIIIL	threading_write	'single'	'multi'
&fms_nml	domains_stack_size	Siligic	115200
&mpp_io_nml	deflate_level		5
жиррыодин	shuffle		1
&ocean_bih_tracer_nml	tracer_mix_micom	True	
2000412511244001211114	vel_micom	0.001	
&ocean_convect_nml	convect_full_scalar	True	
	convect_full_vector	False	
&ocean_lapgen_friction_nml	k_smag_iso	2.0	
&ocean_mixdownslope_nml	debug_this_module	False	
&ocean_nphysics_util_nml	smax	0.002	
	swidth	0.002	
&ocean_overflow_nml	debug_this_module	False	
&ocean_overflow_ofp_nml	debug_this_module	False	
	diag_step	4320	
	do_entrainment_para_ofp	False	
	do_mass_ofp	True	
	frac_exchange_src	1.0	
	max_vol_trans_ofp	10 000 000.0	
&ocean_rivermix_nml	river_diffuse_salt	False	True
	river_diffuse_temp	False	True
&ocean_shortwave_csiro_nml	debug_this_module	False	
	read_depth	True 7000	
Passan sigma transport ami	zmax_pen sigma_advection_on	False	
&ocean_sigma_transport_nml		False	
	sigma_advection_sgs_only sigma_diffusion_on	True	
	sigma_diffusivity_ratio	1×10^{-6}	
	sigma_umusivity_latio sigma_just_in_bottom_cell	True	
	sigina_just_in_bottom_cett sigma_umax	0.01	
	smooth_sigma_thickness	True	

Group (continued)	Variable	original/ kiss_acces- som2 025deg jra55_ryf input.nml	new_acces- som2 025deg jra55_ryf input.nml
	smooth_sigma_velocity	True	
	smooth_velmicom	0.2	
	thickness_sigma_layer	100.0	
	thickness_sigma_max	100.0	
	thickness_sigma_min	100.0	
	tmask_sigma_on	False	
	tracer_mix_micom	True	
	vel_micom	0.05	
&ocean_sponges_tracer_nml	damp_coeff_3d	False	
&ocean_thickness_nml	thickness_dzt_min	2.0	
	thickness_dzt_min_init	10.0	
&ocean_velocity_nml	max_cgint	1.5	1.0
&surface_flux_nml	ncar_ocean_flux	True	
	raoult_sat_vap	True	

$2.3 \quad accessom2_01deg_jra55_ryf$

Only differences are shown (inconsequential where use_this_module = .false. - see complete list below).

&diag_manager_mnl debug_diag_manager Total state of the state of	Group	Variable	original/ hogg_acces- som2 01deg jra55_ryf input.nml	new_acces- som2 01deg jra55_ryf input.nml
Sisse. Or Namings False Time	&auscom_ice_nml	dt_cpl	150	600
Max August	&diag_manager_nml	debug_diag_manager		True
Max. Files 1000 max. input. field 700		issue_oor_warnings		True
Back place of the control of				
Max. Durty m. Asis. sets (Max. Durty m. Edits) 40 max. Durty m. Edits (Max. Durty m.		max_files		
Kims.io.nml max.cutput.fields 700 Kims.io.nml chestsum.required False Kims.nml print.memory.usge False &generic.tracer.nml dogeneric.trc False & dogeneric.tracer False &cocean.bint.tracer, mil max.decr.mix.micom well_micro.mlap.ding 0.001 &cocean.printle convert.mix.cut.cut.cut.cut.cut.cut.cut.cut.cut.cut		•		
Kims.io.nml checksum.required max.files.rd False max.files.rd 700 ma				
kinsnil max.files.ux 700 kinsnil printmemony.usage False kgeneric.tracer.mll dogeneric.tracer. False kocean.advection.velocity.nml max.advection.relocity 62 kocean.advection.velocity.nml vel.micom.lap.diag 0.5 kocean.bib.tracer.nml vel.micom.lap.diag 0.5 kocean.convect.nml vel.micom 0.001 kocean.convect.nml convect.full.vector False kocean.convect.nml kocean.convect.trull.vector False kocean.convect.nml kocean.convect.null.vector False kocean.physic.util.nml kocean.physic.util.nml false kocean.mixdownslope.nml debug.this.module False kocean.nyeflow.nml debug.this.module False kocean.oveflow.ofp.nml debug.this.module False kocean.oveflow.ofp.nml debug.this.module False kocean.niverspread.nml debug.this.module False kocean.sigma.transport.nml sigma.dection.on False kocean.sigma.transport.nml sigma.d		•		
ffmml max.files.wm 700 ffmml pint.memory.usage False &generic.tracer.ml do.generic.cric False do.generic.tracer False do.generic.tracer &ceae.a.dwection.velocity.mnl max.advection.xelocity 0.2 &ceae.a.bortorpic.nml mex.advection.pd.diag 0.5 &cocean.bin.tracer.mml tracer.mix.micom True &cocean.convect.nml convect.full.scalar True &cocean.convect.nml convect.full.scalar True &cocean.mixed.mixed convect.full.scalar True &cocean.mixed.mixed convect.full.scalar True &cocean.mixed.mixed convect.full.scalar True &cocean.mixed.mixed false True &cocean.mixed.mixed false True &cocean.model.nml debug.this.module False &cocean.overflow.nl debug.this.module False &cocean.overflow.ofp.mml debug.this.module False &cocean.overflow.ofp.mml debug.this.module False	&fms_io_nml			
&fms.nml print_memory.usage False &generic.tracer.nml do_generic.tracer False do_generic.tracer &coean_advection_velocity_nml mxx_advection_velocity 0.2 &coean_bin_tracer_nml vel_micom_lap_diag 0.5 &coean_bin_tracer_nml tracer_mix_micom vel_micom vel_micom 0.001 0.001 &coean_convect_nml convect_full_scalar convect_full_vector True convect_full_scalar convect_full_vector &coean_nindownslope_nml k.smag_iso 2.0 &coean_mixdownslope_nml debug_this_module convect_full_vector Talse &coean_noverflow.nml graph_sis_module convect_full_vector Talse &coean_overflow.ofp_nml debug_this_module convect_full_vector Talse &coean_overflow.ofp_nml debug_this_module convect_full_vector Talse convect_full_vector &coean_overflow.ofp_nml debug_this_module convect_full_vector False convect_full_vector &coean_overflow.ofp_nml debug_this_module convect_full_vector False convect_full_vector &coean_overflow.ofp_nml debug_this_module convect_full_vector False convect_full_vector &coean_in				
Repensic_tracer_nml do_generic_tracer False of do_generic_tracer Do_generic_tracer_tracer Do_generic_tracer_tracer Do_generic_tracer_tracer_tracer Truce of tracer_tr		max_files_w	700	
Mogeneric Lapaz False Mogeneric Lapaz Mogeneric	&fms_nml	print_memory_usage		
Accean_advection_velocity_nml do_generic_tracer False &cocean_barctropic_nml vel_minom_lap_diag 0.5 &cocean_bib_t_tracer_nml tracer_mix_micm True &cocean_convect_nml convect_full_scalar convect_full_vector False &cocean_lapgen_friction_nml k. smagiso 2.0 &cocean_mixdownslope_nml debugthis_module False &cocean_model_nml smax 0.002 &cocean_model_nml smax 0.002 &cocean_overflow_nml debugthis_module False &cocean_overflow_nml debugthis_module False &cocean_overflow_ofp_nml debugthis_module False &cocean_overflow_ofp_nml debugthis_module False &cocean_overflow_and debugthis_module False &cocean_iverspread_nml debugthis_module False &cocean_iverspread_nml gen_a.veltrans_ofp 100000000 &cocean_iverspread_nml gen_a.max_veltrans_ofp 100000000 &cocean_iverspread_nml gen_a.max_veltrans_ofp 100000000 &cocean_iver	&generic_tracer_nml	do_generic_cfc	False	
& cocean_advection_velocity_nmll max_advection_velocity_moding 0.5 & cocean_bortoriop(ml) vel_mitorm_lap_diag 0.5 & cocean_init_mitor Tirue & cocean_init_mitor Quality_cover_mix_mitor Tirue & cocean_convect_nml convect_full_vector False & cocean_mixedownslope_nml debug_this_module False & cocean_mixedownslope_nml debug_this_module False & cocean_nowerflow_nml debug_this_module False & cocean_overflow_ofp_nml debug_this_module False & cocean_overflow_ofp_nml debug_this_module False & cocean_overflow_ofp_nml debug_this_module False & cocean_inverspread_nml debug_this_module False & cocean_inverspread_nml debug_this_module False & cocean_sigma_transport_nml debug_this_module False & cocean_sigma_transport_nml debug_this_module False & sigma_addiffusion_on True False & cocean_sigma_transport_nml sigma_addiffusion_on True & sigma_addiffusio			False	
&ocean_barotropic_nml vel_micom ap_diag 0.5 &ocean_Libit_tracer_nml tracer_mix_micom vel_micom vel_micom on 0001 &ocean_convect_nml convect_full_scalar fure fure fure fure fure fure fure fur			False	
& cean_bih_tracer_nml tracer_mix_micom vel_micom vel_micom 0.001 True vel_micom 0.001 & cean_convect_nml convect_full_scalar True convect_full_scalar True convect_full_scalar True convect_full_scalar True convect_full_scalar True convect_full_vector False 5.20 & cocean_lapgen_friction_nml k.smag_iso 2.0 2.0 & cocean_model_nml cmip_units True scalar True sigma_divection_os_only 5.60 & cocean_overflow_ofp_nml debug_this_module false do_unass_ofp frue frace.exchange_src 1.0 5.76 & cocean_riverspread_nml debug_this_module false do_unass_ofp frue frace.exchange_src 1.0 5.76 & cocean_riverspread_nml debug_this_module scalar true scalar true scalar true sigma_advection_os_only false sigma_advection_os_only sigma_diffusion_on true sigma_advection_os_only sigma_unam true sigma_advection_os_only sigma_unam 0.01 5.76 & cocean_sigma_transport_nml sigma_diffusion_true true sigma_unam 0.01 1 x 10 -6 & sigma_diffusion_true true sigma_unam 0.01 1 x 10 -6 1 x 10 -6 & sigma_diffusion_true true true sigma_unam 0.01 1 x 10 -6 1 x 10 -6 & sigma_diffusion_true true true true true true true true	&ocean_advection_velocity_nml	max_advection_velocity	0.2	0.5
Scorean_convect_nml vel_micom 0.001 & convect_full_vector False & cocean_lapgen_friction_nml k.smag_iso 2.0 & cocean_mixdownslope_nml debug_this_module False & cocean_model_nml msmax 0.002 & cocean_noter[low_nml swidth 0.002 & cocean_overflow_nml debug_this_module False & cocean_overflow_nml debug_this_module False & cocean_overflow_nml debug_this_module False & cocean_overflow_nml debug_this_module False & do_entrainment_para_ofp False False & do_entrainment_para_ofp False False & do_entrainment_para_ofp False False & do_entrainment_para_ofp True False & cocean_riverspread_nml gend_entrains_ofp 100000000 & cocean_sigma_transport_nml sigma_advection_on False & cocean_sigma_transport_nml sigma_advection_on True & sigma_uniffusion_on True & sigma_uniffusion_on True	&ocean_barotropic_nml	vel_micom_lap_diag	0.5	0.2
& ocean_convect_nml convect_full_scalar convect_full_vector True convect_full_vector False & ocean_laggen_friction_nml 0.2.0 0.2.0 & ocean_mixedownstope_nml debug_this_module False & ocean_model_nml 0.002 swidth 0.002 & ocean_overflow_inml debug_this_module False & ocean_overflow_ofp_nml debug_this_module False & ocean_overflow_ofp_nml frac_exchange_src 1.0 & ocean_iverspread_nml debug_this_module False & ocean_iverspread_nml debug_this_module False & ocean_sigma_transport_nml sigma_advection_on False & ocean_sigma_advection_on False False & sigma_advection_sgs_only False False sigma_advection_sgs_only False False sigma_diffusion_on True False sigma_injust_in_bottom_cell True False sigma_injust_in_bottom_cell True False sigma_unin_insport_nml 1 × 10 ⁻⁶ False sigma_injust_in_bottom_cell </td <td>&ocean_bih_tracer_nml</td> <td>tracer_mix_micom</td> <td>True</td> <td></td>	&ocean_bih_tracer_nml	tracer_mix_micom	True	
Scoean_lapgen_friction_nml R.smag_iso 2.0 & ocean_mixidownslope_nml debug_this_module False & ocean_model_nml cmip_units Ti & ocean_nphysics_util_nml smax 0.002 Ti & ocean_overflow_nml debug_this_module False Cocean_overflow_nml False Cocean_overflow_of_nml Cocean_overflow_of_nml False Cocean_overflow_of_nml Cocean_overflow_overflow_of_nml		vel_micom	0.001	
Scoean_lapgen_friction_nml R.smag_iso 2.0 & ocean_mixidownslope_nml debug_this_module False & ocean_model_nml cmip_units Ti & ocean_nphysics_util_nml smax 0.002 Ti & ocean_overflow_nml debug_this_module False Cocean_overflow_nml False Cocean_overflow_of_nml Cocean_overflow_of_nml False Cocean_overflow_of_nml Cocean_overflow_overflow_of_nml	&ocean_convect_nml	convect_full_scalar	True	
&ocean_mixtdownslope_nml debug_this_module corean_nodel_nml False corean_nodel_nml &ocean_nodel_nml smax swidth 0,002 swidth			False	
&ocean_mixtdownslope_nml debug_this_module corean_nodel_nml False corean_nodel_nml &ocean_nodel_nml smax swidth 0,002 swidth	&ocean_lapgen_friction_nml	k_smag_iso	2.0	
& ocean_nphysics_util_nml smax swidth swidth no.002 0.002 swidth no.002 & ocean_overflow_nml debug_this_module debug_this_module noise and sidga_step noise and state noise noise and state noise and state nois		debug_this_module	False	
&ocean_overflow_nml swidth debug_this_module False &ocean_overflow_ofp_nml debug_this_module False & diag_step 5760 diag_step 5760 do_entrainment_para_ofp False do_mass_ofp True True frac_exchange_src 1.0 max_vol_trans_ofp 10 000 0000 do_max_vol_trans_ofp 10 000 0000 do_max_vol_trans_ofp False frac_exchange_src 1.0 max_vol_trans_ofp frac_exchange_src 1.0 max_vol_trans_ofp 10 000 0000 do_max_vol_trans_ofp frac_exchange_src 1.0 max_vol_trans_ofp frac_exchange_src 1.0 max_vol_trans_ofp frac_exchange_src 1.0 max_vol_trans_ofp frac_exchange_src 1.0 frac_exchange_src	&ocean_model_nml	cmip_units		True
&ocean_overflow_nml swidth debug_this_module False &ocean_overflow_ofp_nml debug_this_module False & diag_step 5760 diag_step 5760 do_entrainment_para_ofp False do_mass_ofp True True frac_exchange_src 1.0 max_vol_trans_ofp 10 000 0000 do_max_vol_trans_ofp 10 000 0000 do_max_vol_trans_ofp False frac_exchange_src 1.0 max_vol_trans_ofp frac_exchange_src 1.0 max_vol_trans_ofp 10 000 0000 do_max_vol_trans_ofp frac_exchange_src 1.0 max_vol_trans_ofp frac_exchange_src 1.0 max_vol_trans_ofp frac_exchange_src 1.0 max_vol_trans_ofp frac_exchange_src 1.0 frac_exchange_src	&ocean_nphysics_util_nml	smax	0.002	
&ocean_overflow_ofp_nml debug_this_module diag_step 5760 do_entrainment_para_ofp False do_mass_ofp True fac_exchange_src 1.0 do_mass_ofp True frac_exchange_src 1.0 10 000 000.0 &ocean_riverspread_nml debug_this_module use_this_module use_this_module False use_this_module True False use_this_module False use_this_module False use_this_module False use_this_module False use_this_module False use_this_module True False use_this_module False use_this_module True False use_this_module True Tru	• •	swidth	0.002	
&ocean_overflow_ofp_nml debug_this_module diag_step 5760 do_entrainment_para_ofp False do_mass_ofp True fac_exchange_src 1.0 do_mass_ofp True frac_exchange_src 1.0 10 000 000.0 &ocean_riverspread_nml debug_this_module use_this_module use_this_module False use_this_module True False use_this_module False use_this_module False use_this_module False use_this_module False use_this_module False use_this_module True False use_this_module False use_this_module True False use_this_module True Tru	&ocean_overflow_nml	debug_this_module	False	
diag_step5760do_entrainment_para_ofpFalsedo_mass_ofpTruefrac_exchange_src1.0max_vol_trans_ofp10 000 0000& ocean_riverspread_nmldebug_this_module use_this_module use_this_moduleFalse& ocean_sigma_transport_nmlsigma_advection_on sigma_advection_sgs_only sigma_diffusion_onFalse\$ sigma_diffusion_on sigma_diffusivity_ratioTrue\$ sigma_diffusivity_ratio1 × 10^{-6}\$ sigma_just_in_bottom_cell sigma_umax smooth_sigma_thicknessTrue\$ smooth_sigma_thicknessTrue\$ smooth_sigma_velocityTrue\$ smooth_velmicom smooth_velmicom0.2thickness_sigma_layer100.0	&ocean_overflow_ofp_nml		False	
do_entrainment_para_ofpFalsedo_mass_ofpTruefrac_exchange_src1.0max_vol_trans_ofp10 000 000.0& ocean_riverspread_nmldebug_this_module use_this_module use_this_ma_advection_osgs_only use_this_module use_this_ma_advection_osgs_only use_this_module use_this_ma_advection_osgs_only use_this_module use_this	'		5760	
do_mass_ofp frac_exchange_srcTrue frac_exchange_src4.01.04.0max_vol_trans_ofp10 000 000.04.0debug_this_module use_this_module u			False	
& ocean_riverspread_nml debug_this_module use_this_module use_this_ma_advection_on False sigma_advection_sgs_only False sigma_diffusion_on True sigma_diffusivity_ratio 1 × 10^-6 sigma_just_in_bottom_cell use_this_module use_			True	
& ocean_riverspread_nml debug_this_module use_this_module use_this_ma_advection_on False sigma_advection_sgs_only False sigma_diffusion_on True sigma_diffusivity_ratio 1 × 10^-6 sigma_just_in_bottom_cell use_this_module use_		frac_exchange_src	1.0	
weethis_module True False &ocean_sigma_transport_nml sigma_advection_on False sigma_advection_sgs_only False sigma_diffusion_on True sigma_diffusivity_ratio 1 × 10 ⁻⁶ sigma_just_in_bottom_cell True sigma_umax 0.01 smooth_sigma_thickness True smooth_sigma_velocity True smooth_velmicom 0.2 thickness_sigma_layer 100.0			10 000 000.0	
&ocean_sigma_transport_nml sigma_advection_on sigma_advection_sgs_only sigma_diffusion_on true sigma_diffusivity_ratio 1 × 10 ⁻⁶ sigma_just_in_bottom_cell sigma_umax True sigma_umax 0.01 smooth_sigma_thickness True smooth_sigma_velocity True smooth_velmicom 0.2 thickness_sigma_layer 100.0	&ocean_riverspread_nml	debug_this_module	False	
sigma_advection_sgs_only False sigma_diffusion_on True sigma_diffusivity_ratio 1 × 10 ⁻⁶ sigma_just_in_bottom_cell True sigma_umax 0.01 smooth_sigma_thickness True smooth_sigma_velocity True smooth_velmicom 0.2 thickness_sigma_layer 100.0	•	use_this_module	True	False
$\begin{array}{cccccccccccccccccccccccccccccccccccc$	&ocean_sigma_transport_nml	sigma_advection_on	False	
$\begin{array}{cccccccccccccccccccccccccccccccccccc$	•	sigma_advection_sgs_only	False	
$\begin{array}{cccccccccccccccccccccccccccccccccccc$		sigma_diffusion_on		
sigma_just_in_bottom_cell True sigma_umax 0.01 smooth_sigma_thickness True smooth_sigma_velocity True smooth_velmicom 0.2 thickness_sigma_layer 100.0			$1 imes 10^{-6}$	
sigma_umax 0.01 smooth_sigma_thickness True smooth_sigma_velocity True smooth_velmicom 0.2 thickness_sigma_layer 100.0				
smooth_sigma_velocity True smooth_velmicom 0.2 thickness_sigma_layer 100.0			0.01	
smooth_velmicom 0.2 thickness_sigma_layer 100.0			True	
smooth_velmicom 0.2 thickness_sigma_layer 100.0			True	
			0.2	
			100.0	
TNICKNESS_SIGMA_MAX 100.0		thickness_sigma_max	100.0	

Group (continued)	Variable	original/ hogg_acces- som2 01deg jra55_ryf input.nml	new_acces- som2 01deg jra55_ryf input.nml
	thickness_sigma_min	100.0	
	tmask_sigma_on	False	
	tracer_mix_micom	True	
	vel_micom	0.05	
&ocean_solo_nml	dt_cpld	150	600
&ocean_tempsalt_nml	debug_this_module	True	False
&ocean_thickness_nml	thickness_dzt_min	2.0	
	thickness_dzt_min_init	10.0	
&sat_vapor_pres_nml	show_all_bad_values	True	
&surface_flux_nml	ncar_ocean_flux	True	
	raoult_sat_vap	True	
&xgrid_nml	xgrid_log	False	

3 Old and new ACCESS-OM2 configs (differences highlighted)

Group	Variable	original/ hogg_acces- som2 1deg jra55_ryf input.nml	new_acces- som2 1deg jra55_ryf input.nml	original/ kiss_acces- som2 025deg jra55_ryf input.nml	new_acces- som2 025deg jra55_ryf input.nml	original/ hogg_acces- som2 01deg jra55_ryf input.nml	new_acces- som2 01deg jra55_ryf input.nml
&auscom_ice_nml	aice_cutoff	0.15	0.15	0.15	0.15	0.15	0.15
	chk_i2o_fields	False	False	False	False	False	False
	chk_o2i_fields do_ice_once	False False	False False	False False	False False	False False	False False
	do_ice_once dt_cpl	3600	3600	1200	1800	150	600
	fixmeltt	False	False	False	False	False	False
	frazil_factor	1.0	1.0	1.0	1.0	1.0	1.0
	iceform_adj_salt	False	False	False	False	False	False
	icemlt_factor	1.0	1.0	1.0	1.0	1.0	1.0
	kmxice	5	5	5	5	5	5
	pop_icediag <mark>redsea_gulfbay_sfix</mark>	True True	True True	True	True	True	True
	sign_stflx	1.0	1.0	1.0	1.0	1.0	1.0
	tmelt	-0.216	-0.216	-0.216	-0.216	-0.216	-0.216
	use_ioaice	True	True	True	True	True	True
&bg_diff_lat_dependence_nml	bg_diff_eq	1×10^{-6}	1×10^{-6}				
	lat_low_bgdiff	20.0	20.0				
&diag_manager_nml	debug_diag_manager		True	True	True		True
	issue_oor_warnings	False	True	True	True	False	True
	max_axes					300 1000	
	max_files max_input_fields					700	
	max_num_axis_sets					40	
	max_output_fields					700	
&fms_io_nml	checksum_required					False	
	fileset_write	'single'	'single'	'single'	'multi'	'multi'	'multi'
	max_files_r					700	
	max_files_w	1 1.0				700	1 1.11
	threading_read	'multi' 'ainala'	'multi'	'multi'	'multi'	'multi'	'multi'
&fms_nml	threading_write clock_grain	'single' 'LOOP'	'single' 'LOOP'	'single' 'LOOP'	'multi' 'LOOP'	'multi' 'LOOP'	'multi' 'LOOP'
&IIIIS_IIIII	domains_stack_size	LOOP	115200	LOOP	115200	115200	115200
	print_memory_usage		113200		113200	False	113200
&generic_tracer_nml	do_generic_cfc					False	
	do_generic_topaz					False	
9	do_generic_tracer	3. A2	·. a	·	·. a	False	' a'
&mom_oasis3_interface_nml	fields_in	'u_flux', 'v_flux',	'u_flux', 'v_flux',	'u_flux', 'v_flux',	'u_flux', 'v_flux',	'u_flux', 'v_flux',	'u_flux', 'v_flux',
		'lprec', 'fprec',	'lprec', 'fprec',	'lprec', 'fprec',	'lprec', 'fprec',	'lprec', 'fprec',	'lprec', 'fprec',
		'salt_flx',	'salt_flx',	'salt_flx',	'salt_flx',	'salt_flx',	'salt_flx',
		'mh_flux',	'mh_flux',	'mh_flux',	'mh_flux',	'mh_flux',	'mh_flux',
		'sw_flux',	'sw_flux',	'sw_flux',	'sw_flux',	'sw_flux',	'sw_flux',
		'q_flux',	'q_flux',	'q_flux',	'q_flux',	'q_flux',	'q_flux',
		't_flux',	't_flux',	't_flux',	't_flux',	't_flux',	't_flux',
		'lw_flux', 'runof' 'n'	'lw_flux', 'runof' 'n'	'lw_flux', 'runof' 'n'	'lw_flux', 'runof' 'n'	'lw_flux', 'runof' 'n'	'lw_flux', 'runof', 'p',
		'runof', 'p', 'aice',	'runof', 'p', 'aice',	'runof', 'p', 'aice',	'runof', 'p', 'aice',	'runof', 'p', 'aice',	'aice',
		'wfimelt',	'wfimelt',	'wfimelt',	'wfimelt',	'wfimelt',	'wfimelt',
		'wfiform'	'wfiform'	'wfiform'	'wfiform'	'wfiform'	'wfiform'
	fields_out	't_surf',	't_surf',	't_surf',	't_surf',	't_surf',	't_surf',
		's_surf',	's_surf',	's_surf',	's_surf',	's_surf',	's_surf',
		'u_surf',	'u_surf',	'u_surf',	'u_surf',	'u_surf',	'u_surf',
		'v_surf', 'dssldx',	'v_surf', 'dssldx',	'v_surf', 'dssldx',	'v_surf', 'dssldx',	'v_surf', 'dssldx',	'v_surf', 'dssldx',
		'dssldy',	'dssldy',	'dssldy',	'dssldy',	'dssldy',	'dssldy',
		'frazil'	'frazil'	'frazil'	'frazil'	'frazil'	'frazil'
	num_fields_in	15	15	15	15	15	15
		7	7	7	7	7	7
	num_fields_out			-	True	True	True
	send_after_ocean_update	True	True	True			
	send_after_ocean_update send_before_ocean_update		False	False	False	False	False
	send_after_ocean_update send_before_ocean_update neutral	True	False True		False True	False True	False True
&monin_obukhov_nml &mpp_io_nml	send_after_ocean_update send_before_ocean_update neutral deflate_level	True	False True 5	False	False True 5	False True 5	False True 5
&mpp_io_nml	send_after_ocean_update send_before_ocean_update neutral deflate_level shuffle	True False	False True 5 1	False True	False True 5 1	False True 5 1	False True 5 1
&mpp_io_nml	send_after_ocean_update send_before_ocean_update neutral deflate_level shuffle diag_step	True False	False True 5 1 4320	False True 4320	False True 5 1 4320	False True 5 1 576	False True 5 1 576
&mpp_io_nml	send_after_ocean_update send_before_ocean_update neutral deflate_level shuffle diag_step large_cfl_value	True False 4320 10.0	False True 5 1 4320 10.0	False True 4320 10.0	False True 5 1 4320 10.0	False True 5 1 576 10.0	False True 5 1 576 10.0
	send_after_ocean_update send_before_ocean_update neutral deflate_level shuffle diag_step large_cfl_value max_cfl_value	True False	False True 5 1 4320	False True 4320	False True 5 1 4320	False True 5 1 576	False True 5 1 576 10.0 100.0
&mpp_io_nml	send_after_ocean_update send_before_ocean_update neutral deflate_level shuffle diag_step large_cfl_value	True False 4320 10.0 100.0	False True 5 1 4320 1000	False True 4320 10.0 100.0	False True 5 1 4320 100 1000	False True 5 1 576 1000	False True 5 1 576 10.0

Group (continued)	Variable	original/ hogg_acces- som2 1deg jra55_ryf input.nml	new_acces- som2 1deg jra55_ryf input.nml	original/ kiss_acces- som2 025deg jra55_ryf input.nml	new_acces- som2 025deg jra55_ryf input.nml	original/ hogg_acces- som2 01deg jra55_ryf input.nml	new_acces- som2 01deg jra55_ryf input.nml
&ocean_barotropic_nml	barotropic_halo	_ 10	_ 10	_ 10	_ 10	_ 10	10
	barotropic_time_stepping_a barotropic_time_stepping_b	True False	True False	True False	True False	True False	True False
	debug_this_module	False	False	False	False	False	False
	diag_step	4320	4320	4320	4320	576	576
	eta_max	8.0	8.0	8.0	8.0	8.0	8.0
	frac_crit_cell_height	0.2	0.2	0.2	0.2	0.2	0.2
	pred_corr_gamma smooth_eta_diag_laplacian	0.2 True	0.2 True	0.2 True	0.2 True	0.2 True	0.2 True
	smooth_eta_t_biharmonic	False	False	False	False	False	False
	smooth_eta_t_laplacian	True	True	True	True	True	True
	smooth_pbot_t_biharmonic	False	False	False	False	False	False
	smooth_pbot_t_laplacian	True	True	True	True	True	True
	truncate_eta	False	False	False	False	False	False
	use_legacy_barotropic_halos vel_micom_bih	False 0.01	False 0.01	False 0.01	False 0.01	False 0.01	False 0.01
	vel_micom_lap	0.05	0.05	0.01	0.01	0.05	0.05
	vel_micom_lap_diag	0.2	0.2	0.2	0.2	0.5	0.2
	verbose_truncate	True	True	True	True	True	True
2 accor blog mad	zero_tendency		False	False	False	False	False
&ocean_bbc_nml	bmf_implicit cdbot	0.001	True 0.001	True 0.001	True 0.001	True 0.001	True 0.001
	cdbot_hi	0.001	0.001	0.001	0.001	0.001	0.001
	cdbot_law_of_wall	False					
	cdbot_roughness_length		False	False	False	False	False
	cdbot_roughness_uamp		True	True	True	True	True
	uresidual	False	0.05 False	0.05 False	0.05 False	0.05 Falso	0.05
&ocean_bbc_ofam_nml	use_geothermal_heating read_tide_speed	False	raise	raise	raise	False	False
Woccan_bbc_blam_min	uresidual2_max	1.0					
&ocean_bih_friction_nml	bih_friction_scheme	'general'	'general'	'general'	'general'	'general'	'general'
&ocean_bih_tracer_nml	tracer_mix_micom			True		True	
	use_this_module	False	False	False	False	False	False
&ocean_bihcst_friction_nml	vel_micom use_this_module	False	False	0.001 False	False	0.001 False	False
&ocean_bingen_friction_nml	bottom_5point	True	False	False	False	False	False
accar_binger_medon_min	eq_lat_micom	0.0	0.0	0.0	0.0	0.0	0.0
	eq_vel_micom_aniso	0.0	0.0	0.0	0.0	0.0	0.0
	eq_vel_micom_iso	0.0	0.0	0.0	0.0	0.0	0.0
	equatorial_zonal	False	False	False	False	False	False
	к_smag_aniso k_smag_iso	0.0 2.0	0.0 2.0	0.0 2.0	0.0 2.0	0.0 2.0	0.0 2.0
	ncar_boundary_scaling	True	True	True	True	True	True
	ncar_boundary_scaling_read		True	True	True	True	True
	ncar_rescale_power	2	2	2	2	2	2
	ncar_vconst_4	2×10^{-8}	2×10^{-8}	2×10^{-8}	2×10^{-8}	2×10^{-8}	2×10^{-8}
	ncar_vconst_5 use_this_module	5 True	5 True	5 True	5 True	5 True	5 True
	vel_micom_aniso	0.0	0.0	0.0	0.0	0.0	0.0
	vel_micom_bottom	0.01	0.0	0.0	0.0	0.0	0.0
	vel_micom_iso	0.04	0.0	0.0	0.0	0.0	0.0
	visc_crit_scale	0.25	1.0	1.0	1.0	1.0	1.0
&ocean_convect_nml	convect_full_scalar	False		True		True	
	convect_full_vector use_this_module	True False	False	False False	False	False False	False
&ocean_coriolis_nml	acor	0.5	0.5	0.5	0.5	0.5	0.5
	use_this_module	True	True	True	True	True	True
&ocean_density_nml	eos_linear	False	False	False	False	False	False
	eos_preteos10	True	True	True	True	True	True
	layer_nk	10700	80 10790	80 1079 0	80 1079.0	80 1078 0	80 1079.0
	neutralrho_max neutralrho_min	1030.0 1020.0	1038.0 1028.0	1038.0 1028.0	1038.0 1028.0	1038.0 1028.0	1038.0 1028.0
	potrho_max	1038.0	1028.0	1028.0	1028.0	1028.0	1038.0
	potrho_min	1028.0	1028.0	1028.0	1028.0	1028.0	1028.0
&ocean_domains_nml	max_tracers	10	5	5	5	5	5
&ocean_form_drag_nml	cprime_aiki	0.6		- ·	. .		<u>.</u> .
Paran frazil ped	use_this_module	False	False	False	False	False	False
&ocean_frazil_nml	debug_this_module frazil_only_in_surface		False False	False False	False False	False False	False False
	freezing_temp_preteos10		True	True	True	True	True
	freezing_temp_simple	True	False	False	False	False	False
	use_this_module	True	True	True	True	True	True
&ocean_grids_nml	debug_this_module	True	False	False	False	False	False

Group (continued)	Variable	original/ hogg_acces- som2 1deg jra55_ryf input.nml	new_acces- som2 1deg jra55_ryf input.nml	original/ kiss_acces- som2 025deg jra55_ryf input.nml	new_acces- som2 025deg jra55_ryf input.nml	original/ hogg_acces- som2 01deg jra55_ryf input.nml	new_acces- som2 01deg jra55_ryf input.nml
0	read_rho0_profile	False					
&ocean_increment_eta_nml	days_to_increment fraction_increment	0 1.0					
	secs_to_increment	1800					
	use_this_module	False	False	False	False	False	False
&ocean_increment_tracer_nml	days_to_increment	0					
	fraction_increment	1.0 1800					
	secs_to_increment use_this_module	False	False	False	False	False	False
&ocean_increment_velocity_nml	days_to_increment	0	1 4136	1 4130	1 4136	1400	1 4130
	fraction_increment	1.0					
	secs_to_increment	1800	F-1	F-I	F-1	Falsa	F-1
&ocean_lap_friction_nml	use_this_module lap_friction_scheme	False 'general'	False 'general'	False 'general'	False 'general'	False 'general'	False 'general'
&ocean_lap_tracer_nml	use_this_module	False	False	False	False	False	False
&ocean_lapcst_friction_nml	use_this_module	False	False	False	False	False	False
&ocean_lapgen_friction_nml	bottom_5point	True	True				
	k_smag_aniso	0.0	0.0	3.0		3.0	
	k_smag_iso ncar_only_equatorial	0.0 True	0.0 True	2.0		2.0	
	restrict_polar_visc	True	True				
	restrict_polar_visc_lat	60.0	60.0				
	restrict_polar_visc_ratio	0.35	0.35				
	use_this_module	True	True	False	False	False	False
	vconst_1 vconst_2	0.00 000 8 0.0	0.000 000 8 0.0				
	vconst_2	0.8	0.8				
	vconst_4	5×10^{-9}	5×10^{-9}				
	vconst_5	3	3				
	vconst_6	300 000 000.0	300 000 000.0				
	vconst_7 vel_micom_iso	100.0 0.1	100.0 0.1				
	viscosity_ncar	True	True				
	viscosity_ncar_2000	False	False				
	viscosity_ncar_2007	True	True				
	viscosity_scale_by_rossby	True	True				
&ocean_mixdownslope_nml	viscosity_scale_by_rossby_power debug_this_module	4.0 False	100.0 False	False		False	
a decarization of the control of the	mixdownslope_mask_gfdl	False	False	raise		raise	
	mixdownslope_npts	4	4				
	read_mixdownslope_mask	False	False				
&ocean_model_nml	use_this_module baroclinic_split	True 1	True 1	False 1	False 1	False 1	False 1
&ocean_modet_mit	baroctrinc_split barotropic_split	80	80	80	80	80	80
	cmip_units	True	True	True	True		True
	debug	False	False	False	False	False	False
	dt_ocean	3600	3600	1200	1200	150	150
	<mark>io_layout</mark> layout	4, 3 16, 15	4, 3 16, 15	6, 5 48, 40	6, 5 48, 40	10, 15 80, 75	10, 15 80, 75
	surface_height_split	10,13	10, 13	1	1	1	1
	time_tendency	'twolevel'	'twolevel'	'twolevel'	'twolevel'	'twolevel'	'twolevel'
	vertical_coordinate	'zstar'	'zstar'	'zstar'	'zstar'	'zstar'	'zstar'
&ocean_momentum_source_nml	rayleigh_damp_exp_from_bottom	T	False	False	False	False	False
	use_rayleigh_damp_table use_this_module	True True	True True	True True	True True	True True	True True
&ocean_nphysics_nml	debug_this_module	False	False	False	False	False	False
	use_nphysicsa	False	False	False	False	False	False
	use_nphysicsb	False	False	False	False	False	False
	use_nphysicsc	True	True	False	False	False	False
&ocean_nphysics_util_nml	use_this_module agm	True 600.0	True 600.0	False 100.0	False 100.0	False 100.0	False 100.0
Social inpression and the second in the seco	agm_closure	True	True	True	True	True	True
	agm_closure_baroclinic	True	True	True	True	True	True
	agm_closure_buoy_freq	0.004	0.004	0.004	0.004	0.004	0.004
	agm_closure_eady_ave_mixed	True	True True				
	agm_closure_eady_cap agm_closure_eady_smooth_horz	True True	True				
	agm_closure_eady_smooth_vert	True	True				
	agm_closure_eden_gamma	0.0	0.0				
	agm_closure_eden_greatbatch	False	False				
	agm_closure_grid_scaling	True 50 000.0	True 50 000.0	50 000.0	50 000.0	50 000.0	50 000.0
	agm_closure_length agm_closure_length_bczone	50 000.0 False	50 000.0 False	50 000.0 False	50 000.0 False	50 000.0 False	50 000.0 False
	agin_closure_length_bc20ffe	Larza	Larze	Lqrze	Larse	Larze	raise

Group (continued)	Variable	original/ hogg_acces- som2 1deg jra55_ryf input.nml	new_acces- som2 1deg jra55_ryf input.nml	original/ kiss_acces- som2 025deg jra55_ryf input.nml	new_acces- som2 025deg jra55_ryf input.nml	original/ hogg_acces- som2 01deg jra55_ryf input.nml	new_acces- som2 01deg jra55_ryf input.nml
	agm_closure_length_fixed agm_closure_length_rossby	False False	False False	False False	False False	False False	False False
	agm_closure_lower_depth	2000.0	2000.0	2000.0	2000.0	2000.0	2000.0
	agm_closure_max	600.0	600.0	600.0	600.0	600.0	600.0
	agm_closure_min	50.0	50.0	100.0	100.0	100.0	100.0
	agm_closure_scaling agm_closure_upper_depth	0.07 100.0	0.07 100.0	0.07 100.0	0.07 100.0	0.07 100.0	0.07 100.0
	agm_damping_time	45.0	45.0	100.0	100.0	100.0	100.0
	agm_smooth_space	False	False				
	agm_smooth_time	False	False	(00.0	(000	(00.0	(00.0
	aredi aredi_equal_agm	600.0 False	600.0 False	600.0 False	600.0 False	600.0 False	600.0 False
	drhodz_mom4p1	True	True	False	False	False	False
	drhodz_smooth_horz	False	False	False	False	False	False
	drhodz_smooth_vert	False	False	False	False	False	False
	nphysics_util_zero_init	True	True	100,000,0	100 000 0	100 000 0	100 000 0
	rossby_radius_max rossby_radius_min	100 000.0 15 000.0	100 000.0 15 000.0	100 000.0 15 000.0	100 000.0 15 000.0	100 000.0 15 000.0	100 000.0 15 000.0
	rossby_radius_min smax	0.000	0.000	0.002	0.000	0.002	1.000.0
	swidth			0.002		0.002	
	tracer_mix_micom	False	False	False	False	False	False
Pagana nahusiga nad	vel_micom	0.0	0.0	0.0	0.0	0.0	0.0
&ocean_nphysicsa_nml &ocean_nphysicsb_nml	use_this_module use_this_module	False False	False False	False False	False False	False False	False False
&ocean_nphysicsc_nml	bv_freq_smooth_vert	True	True	1 8130	Talsc	Tatsc	Taisc
	bvp_bc_mode	2	2				
	bvp_min_speed	0.1	0.1				
	bvp_speed	0.0	0.0				
	debug_this_module do_gm_skewsion	False True	False True				
	do_neutral_diffusion	True	True				
	epsln_bv_freq	1×10^{-12}	1×10^{-12}				
	gm_skewsion_bvproblem	True	True				
	gm_skewsion_modes	False	False				
	neutral_eddy_depth neutral_physics_limit	True True	True True				
	number_bc_modes	2	2				
	regularize_psi	False	False				
	smax_psi	0.01	0.01				
	smooth_psi	True	True				
	tmask_neutral_on turb_blayer_min	True 50.0	True 50.0				
	use_this_module	True	True	False	False	False	False
&ocean_operators_nml	use_legacy_div_ud		False	False	False	False	False
&ocean_overexchange_nml	debug_this_module	False	False	False	False	False	False
	<pre>overexch_check_extrema overexch_npts</pre>	False 4	4	4	4	4	4
	overexch_weight_far	False	False	False	False	False	False
	overflow_umax	5.0	5.0	5.0	5.0	5.0	5.0
	use_this_module	False	False	False	False	False	False
&ocean_overflow_nml	debug_this_module	False	Falsa	False	Falsa	False	Falsa
&ocean_overflow_ofp_nml	use_this_module debug_this_module	False	False	False False	False	False False	False
&ocean_overnow_orp_nint	diag_step			4320		5760	
	do_entrainment_para_ofp			False		False	
	do_mass_ofp			True		True	
	frac_exchange_src			1.0		1.0	
	max_vol_trans_ofp use_this_module		False	10 000 000.0 False	False	10 000 000.0 False	False
&ocean_polar_filter_nml	use_this_module	False	False	False	False	False	False
&ocean_pressure_nml	zero_pressure_force		False	False	False	False	False
&ocean_rivermix_nml	debug_this_module	False	False	False	False	False	False
	river_diffuse_salt	False	True	False	True	True	True
	river_diffuse_temp	False 0.0	True 0.0	False 0.0	True 0.0	True 0.0	True 0.0
	river diffusion thickness	UU	0.0				0.0
	river_diffusion_thickness river_diffusivity	0.0	0.0	0.0	0.0	0.0	0.0
			0.0 40.0	0.0 40.0	0.0 40.0	0.0 40.0	40.0
	river_diffusivity river_insertion_thickness use_this_module	0.0				40.0 True	
&ocean_riverspread_nml	river_diffusivity river_insertion_thickness use_this_module debug_this_module	0.0 40.0 True	40.0 True	40.0 True	40.0 True	40.0 True False	40.0 True
·	river_diffusivity river_insertion_thickness use_this_module debug_this_module use_this_module	0.0 40.0	40.0 True False	40.0 True False	40.0 True False	40.0 True False True	40.0 True False
&ocean_riverspread_nml &ocean_rough_nml &ocean_sbc_nml	river_diffusivity river_insertion_thickness use_this_module debug_this_module	0.0 40.0 True	40.0 True	40.0 True	40.0 True	40.0 True False	40.0 True

Group (continued)	Variable	original/ hogg_acces- som2 1deg jra55_ryf input.nml	new_acces- som2 1deg jra55_ryf input.nml	original/ kiss_acces- som2 025deg jra55_ryf input.nml	new_acces- som2 025deg jra55_ryf input.nml	original/ hogg_acces- som2 01deg jra55_ryf input.nml	new_acces- som2 01deg jra55_ryf input.nml
	calvingspread		False False	False	False False	False False	False
	do_bitwise_exact_sum do_flux_correction		False	False False	False	False	False False
	land_model_heat_fluxes		False	False	False	False	False
	max_delta_salinity_restore	0.5	0.5	0.5	0.5	0.5	0.5
	max_ice_thickness read_restore_mask	8.0 Falso	0.0 False	0.0 False	0.0 False	0.0 False	0.0
	read_restore_mask_qfdl	False False	False	False	False	False	False False
	runoff_salinity	0.0	0.0	0.0	0.0	0.0	0.0
	salt_correction_scale		0.0	0.0	0.0	0.0	0.0
	salt_restore_as_salt_flux	True	True	True	True	True	True
	salt_restore_tscale salt_restore_under_ice	15.0 True	60.0 True	60.0 True	60.0 True	60.0 True	60.0 True
	temp_restore_tscale	-1.0	-10.0	-10.0	-10.0	-10.0	-10.0
	use_full_patm_for_sea_level		False	False	False	False	False
	use_waterflux	True	True	True	True	True	True
	waterflux_tavg	False False	Ealco	Ealco	Ealco	Ealso	Ealco
	zero_heat_fluxes zero_net_salt_correction	raise	False False	False False	False False	False False	False False
	zero_net_salt_restore	True	True	True	True	True	True
	zero_net_water_correction		False	False	False	False	False
	zero_net_water_couple_restore	True	True	True	True	True	True
	zero_net_water_coupler zero_net_water_restore	True True	True True	True True	True True	True True	True True
	zero_surface_stress	False	False	False	False	False	False
	zero_water_fluxes	False	False	False	False	False	False
&ocean_sbc_ofam_nml	restore_mask_ofam	False					
Pagana shartugua saira ami	river_temp_ofam	False		False			
&ocean_shortwave_csiro_nml	debug_this_module read_depth	True		True			
	use_this_module	True	False	False	False	False	False
	zmax_pen	7000		7000			
&ocean_shortwave_gfdl_nml	debug_this_module	False	False	False	False	False	False
	enforce_sw_frac optics_manizza	True True	True True	True True	True True	True True	True True
	optics_morel_antoine	iiue	False	False	False	False	False
	read_chl	False	True	True	True	True	True
	sw_pen_fixed_depths	False	_	_	_	_	_
	use_this_module	False	True	True 300.0	True	True	True
&ocean_shortwave_jerlov_nml	zmax_pen use_this_module	200.0 False	300.0 False	False	300.0 False	300.0 False	300.0 False
&ocean_shortwave_nml	use_shortwave_csiro	True	False	False	False	False	False
	use_shortwave_gfdl	False	True	True	True	True	True
	use_shortwave_jerlov	False	False	False	False	False	False
Pagan sigma transport ami	use_this_module sigma_advection_on	True False	True	True False	True	True False	True
&ocean_sigma_transport_nml	sigma_advection_sqs_only	False		False		False	
	sigma_diffusion_on	True		True		True	
	sigma_diffusivity_ratio	$1 imes 10^{-6}$		$1 imes 10^{-6}$		$1 imes 10^{-6}$	
	sigma_just_in_bottom_cell	True		True		True	
	sigma_umax smooth_sigma_thickness	0.01 True		0.01 True		0.01 True	
	smooth_sigma_velocity	True		True		True	
	smooth_velmicom	0.2		0.2		0.2	
	thickness_sigma_layer	100.0		100.0		100.0	
	thickness_sigma_max thickness_sigma_min	100.0 100.0		100.0 100.0		100.0 100.0	
	tmask_sigma_on	False		False		False	
	tracer_mix_micom	True		True		True	
	use_this_module	True	False	False	False	False	False
Possan sala nmi	vel_micom	0.05	'NOLEAD'	0.05	'NOI FAD'	0.05	יאוחו ראסי
&ocean_solo_nml	calendar date_init <mark>days</mark>	'NOLEAP' 1, 1, 1, 0, 0, 0 1460	'NOLEAP' 1, 1, 1, 0, 0, 0 1460	'NOLEAP' 1, 1, 1, 0, 0, 0 31	'NOLEAP' 1, 1, 1, 0, 0, 0 31	'NOLEAP' 1, 1, 1, 0, 0, 0 30	'NOLEAP' 1, 1, 1, 0, 0, 0 30
	debug_this_module dt_cpld	False 3600	3600	1200	1200	150	600
	hours	0	0	0	0	0	0
	minutes	0	0	0	0	0	0
	months						
	months seconds	0 0	0	0	0	0	0
&ocean_sponges_eta_nml							

Group (continued)	Variable	original/ hogg_acces- som2 1deg jra55_ryf input.nml	new_acces- som2 1deg jra55_ryf input.nml	original/ kiss_acces- som2 025deg jra55_ryf input_nml	new_acces- som2 025deg jra55_ryf input.nml	original/ hogg_acces- som2 01deg jra55_ryf input_nml	new_acces- som2 01deg jra55_ryf input.nml
0 1 :	use_this_module	False	False	False	False	False	False
&ocean_sponges_velocity_nml	use_this_module	False	False 0.05	False 0.05	False 0.05	False 0.05	False 0.05
&ocean_submesoscale_nml	coefficient_ce debug_this_module	False	False	False	False	False	False
	front_length_const	5000.0	5000.0	5000.0	5000.0	5000.0	5000.0
	front_length_deform_radius	True	True	True	True	True	True
	limit_psi	True	True	True	True	True	True
	limit_psi_velocity_scale	0.5	0.5	0.5	0.5	0.5	0.5
	min_kblt	4	_ 4	_ 4	_ 4	_ 4	_ 4
	smooth_advect_transport		True 4	True	True	True	True
	<pre>smooth_advect_transport_num smooth_hblt</pre>	False	False	4 False	4 False	4 False	4 False
	smooth_psi	raisc	True	True	True	True	True
	smooth_psi_num		3	3	3	3	3
	submeso_advect_flux		False	False	False	False	False
	submeso_advect_limit		True	True	True	True	True
	submeso_advect_upwind		True	True	True	True	True
	submeso_advect_zero_bdy		True	True	True	True	True
	submeso_diffusion submeso_diffusion_biharmonic		False	False	False	False	False
	submeso_diffusion_binarmonic submeso_diffusion_scale		True 10.0	True 10.0	True 10.0	True 10.0	True 10.0
	submeso_timit_flux	True	10.0	10.0	10.0	10.0	10.0
	submeso_skew_flux	nuc	True	True	True	True	True
	use_hblt_equal_mld	True	True	True	True	True	True
	use_psi_legacy		False	False	False	False	False
	use_this_module	True	True	True	True	True	True
&ocean_tempsalt_nml	debug_this_module	False	False	False	False	True	False
	pottemp_2nd_iteration	True	True	True	True	True	True
	pottemp_equal_contemp	FF.0	True	True	True	True	True
	<mark>s_max</mark> s_max_limit	55.0 42.0	70.0 42.0	70.0 42.0	70.0 42.0	70.0 42.0	70.0 42.0
	s_min	-1.0	0.0	0.0	0.0	0.0	0.0
	s_min_limit	0.0	2.0	2.0	2.0	2.0	2.0
	t_max	55.0	55.0	55.0	55.0	55.0	55.0
	t_max_limit	32.0	32.0	32.0	32.0	32.0	32.0
	t_min	-5.0	-20.0	-20.0	-20.0	-20.0	-20.0
	t_min_limit	-2.0	-5.0	-5.0	-5.0	-5.0	-5.0
	temperature_variable	'conservative	'potential	'potential	'potential	'potential	'potential
	11 11 11	temp'	temp'	temp'	temp'	temp'	temp'
&ocean_thickness_nml	debug_this_module debug_this_module_detail	False False	False False	False False	False False	False False	False False
	initialize_zero_eta	False	False	raise	raise	raise	raise
	read_rescale_rho0_mask	False					
	rescale_mass_to_get_ht_mod		False	False	False	False	False
	rescale_rho0_basin_label	7.0					
	rescale_rho0_mask_gfdl	False					
	rescale_rho0_value	0.75					
	thickness_dzt_min	1.0		2.0		2.0	
	thickness_dzt_min_init thickness_method	2.0	'energetic'	10.0	'anaraatis'	10.0	'anaraatis'
&ocean_topog_nml	min_thickness	'energetic' 25.0	energetic	'energetic'	'energetic'	'energetic'	'energetic'
&ocean_tracer_advect_nml	advect_sweby_all	True					
Woccan_tracer_advect_nint	async_domain_update	True					
	debug_this_module	False	False	False	False	False	False
	read_basin_mask		False	False	False	False	False
&ocean_tracer_diag_nml	diag_step	4320	4320	4320	4320	576	576
	do_bitwise_exact_sum	False	False	False	False	False	False
	tracer_conserve_days	1.0	30.0	30.0	30.0	30.0	30.0
&ocean_tracer_nml	age_tracer_max_init	0.0	0.0	0.0	0.0 False	0.0	0.0
	debug_this_module frazil_heating_after_vphysics	False True	False True	False True	False True	False True	False True
	frazil_heating_before_vphysics	False	False	False	False	False	False
	limit_age_tracer	True	True	True	True	True	True
	remap_depth_to_s_init	False	False	False	False	False	False
	use_tempsalt_check_range	True	True	True	True	True	True
	zero_tendency	False	False	False	False	False	False
	zero_tracer_source	False	False	False	False	False	False
&ocean_velocity_diag_nml	debug_this_module	False	False	False	False	False	False
	diag_step	4320	4320	4320	4320	576	576
	energy_diag_step	4320	4320	4320	4320	5760	5760
	large_cfl_value max_cfl_value	10.0 100.0	10.0 100.0	10.0 100.0	10.0 100.0	10.0 100.0	10.0 100.0
&ocean_velocity_nml	max_crt_value adams_bashforth_third	True	True	True	True	True	True
wocedii_vetocity_IIIIIt	dudins_DdSilioitil_tNlfQ	irue	irue	irue	iiue	irue	irue

Group (continued)	Variable	original/ hogg_acces- som2 1deg jra55_ryf input.nml	new_acces- som2 1deg jra55_ryf input.nml	original/ kiss_acces- som2 025deg jra55_ryf input.nml	new_acces- som2 025deg jra55_ryf input.nml	original/ hogg_acces- som2 01deg jra55_ryf input.nml	new_acces- som2 01deg jra55_ryf input.nml
	max_cgint	1.0	1.0	1.5	1.0	1.0	1.0
	truncate_velocity	True	False	False	False	False	False
	truncate_velocity_value truncate_verbose	2.0 True	2.0 True	2.0 True	2.0 True	2.0 True	2.0 True
	zero_tendency	False	False	False	False	False	False
	zero_tendency_explicit_a		False	False	False	False	False
	zero_tendency_explicit_b		False	False	False	False	False
	zero_tendency_implicit		False	False	False	False	False
&ocean_vert_kpp_iow_nml	use_this_module	False	False	False	False	False	False
&ocean_vert_kpp_mom4p0_nml &ocean_vert_kpp_mom4p1_nml	use_this_module diff_cbt_iw	False 0.0	0.0	0.0	0.0	0.0	0.0
Queen_vert_kpp_mom+p1_mmt	diff_con_limit	0.0	0.0	0.0	0.0	0.0	0.0
	double_diffusion	True	True	True	True	True	True
	kbl_standard_method	False	False	False	False	False	False
	ricr	0.3	0.3	0.3	0.3	0.3	0.3
	smooth_blmc	False	False	False	False	False	False
	smooth_ri_kmax_eq_kmu use_this_module	True True	True True	True True	True True	True True	True True
	visc_cbu_iw	0.0	0.0	0.0	0.0	0.0	0.0
	visc_con_limit	0.1	0.0	0.0	0.0	0.0	5.0
&ocean_vert_mix_nml	afkph_00	0.65					
	afkph_90	0.75					
	aidif bryan_lewis_diffusivity	1.0 False	1.0 False	1.0 False	1.0 False	1.0 False	1.0 False
	bryan_lewis_lat_depend	True	False	False	False	False	False
	bryan_lewis_lat_transition	35.0	ruise	raise	raise	raise	ruise
	dfkph_00	1.15					
	dfkph_90	0.95					
	hwf_diffusivity		False	False	False	False	False
	hwf_min_diffusivity		2×10^{-6}	2×10^{-6}	2×10^{-6}	2×10^{-6}	2×10^{-6}
	hwf_n0_2omega linear_taper_diff_cbt_table	False	20.0	20.0	20.0	20.0	20.0
	sfkph_00	4.5×10^{-5}					
	sfkph_90	4.5×10^{-5}					
	use_diff_cbt_table	False	False	False	False	False	False
	vert_diff_back_via_max	True	True	True	True	True	True
	vert_mix_scheme	'kpp	'kpp	'kpp	'kpp	'kpp	'kpp
	zflosh 00	mom4p1' 250 000.0	mom4p1'	mom4p1'	mom4p1'	mom4p1'	mom4p1'
	zfkph_00 zfkph_90	250 000.0					
&ocean_vert_tidal_nml	background_diffusivity	5×10^{-6}	0.0	0.0	0.0	0.0	0.0
	background_viscosity	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001
	decay_scale	300.0	500.0	500.0	500.0	500.0	500.0
	drag_dissipation_use_cdbot	12	True	True	True	True	True
	drhodz_min	1×10^{-12}	1×10^{-10}	1×10^{-10}	1×10^{-10}	1×10^{-10}	1×10^{-10}
	fixed_wave_dissipation max_drag_diffusivity	False 0.01	False	False	False	False	False
	max_drag_drifusivity max_wave_diffusivity	0.01	0.01	0.01	0.01	0.01	0.01
	mixing_efficiency_n2depend	True	True	True	True	True	True
	read_roughness	True	True	True	True	True	True
	read_tide_speed	True	True	True	True	True	True
	read_wave_dissipation	False	False	False	False	False	False
	reading_roughness_amp	True	True	True	True	True	True
	reading_roughness_length roughness_scale	False 20 000.0	False 12 000.0	False 12 000.0	False 12 000.0	False 12 000.0	False 12 000.0
	shelf_depth_cutoff	160.0	-1000.0 -1000.0	-1000.0 -1000.0	-1000.0 -1000.0	-1000.0 -1000.0	-1000.0 -1000.0
	tide_speed_data_on_t_grid	True	True	True	True	True	True
	use_drag_dissipation	True	True	True	True	True	True
	use_legacy_methods	-	False	False	False	False	False
	use_this_module use_wave_dissipation	True True	True True	True True	True True	True True	True True
	wave_energy_flux_max	0.1	0.1	0.1	0.1	0.1	0.1
&ocean_xlandinsert_nml	use_this_module verbose_init	False True	False	False	False	False	False
&ocean_xlandmix_nml	use_this_module	False	False	False	False	False	False
S C C C C C C C C C C C C C C C C C C C	verbose_init	True	i alsc	i alsc	iaisc	iaisc	1 0130
	xlandmix_kmt	True					
	show all had values					True	
&sat_vapor_pres_nml	show_all_bad_values						
&sat_vapor_pres_nml &surface_flux_nml	ncar_ocean_flux			True		True	
				True True		True True True	True

Group (continued) Variable	original/ hogg_acces- som2 1deg jra55_ryf input.nml	new_acces- som2 1deg jra55_ryf input.nml	original/ kiss_acces- som2 025deg jra55_ryf input.nml	new_acces- som2 025deg jra55_ryf input.nml	original/ hogg_acces- som2 01deg jra55_ryf input.nml	new_acces- som2 01deg jra55_ryf input.nml
interp_method	'second	'second	'second	'second	'second	'second
	order'	order'	order'	order'	order'	order'
make_exchange_reproduce	False	False	False	False	False	False
nsubset		16	16	16	16	16
xgrid_log					False	

4 All variables in all 9 configs (differences highlighted)

	GFDL ESM2M_ input cut.nm	- TOPAZ - input.nml	fabio momsis1 input.nml	original/ paul_mom- sis025_in- put.nml	original/ fanghua mom- sis01v5KDS75_ WOA13_in- put.nml	original/ russ- accessom- - mom4p1- input.nml	new_acces- som2 1deg jra55_ryf input.nml	new_acces- som2 025deg jra55_ryf input.nml	new_acces- som2 01deg jra55_ryf input.nml
&auscom_ice_nml aice_	utoff				putililit	0.15	0.15	0.15	0.15
chk_i2o_						False	False	False	False
chk_o2i_						False	False	False	False
do_ice						False	False	False	False
-	t_cpl neltt					3600 False	3600 False	1800 False	600 False
frazil_:						1.0	1.0	1.0	1.0
iceform_ad						False	False	False	False
icemlt_	actor					1.0	1.0	1.0	1.0
	nxice					_ 5	_ 5	_ 5	_ 5
pop_ic						True	True	True	True
redsea_gulfba sign	_stflx					1.0	True 1.0	1.0	1.0
	melt					-0.216	-0.216	-0.216	-0.216
use_i						True	True	True	True
&bg_diff_lat_dependence_nml bg_diff_eq						1×10^{-6}	1×10^{-6}		
lat_low_l						20.0	20.0		
&coupler_nml atmos_ atmos_nth	•	0 0	0	0	0				
	ndar 'NOLEAF		'noleap'	'noleap'	'noleap'				
check_s		0 0	0	0	0				
concu			False	False	False				
current			1, 1, 1, 0, 0, 0	1, 1, 1, 0, 0, 0	1, 1, 1, 0, 0, 0				
		0 2	0	365	_ 1				
	t <mark>mos</mark> True _flux True		False	False	False				
	o_ice Tru		True	True	True				
	land True		False	False	False				
	cean True		True	True	True				
dt_a	tmos 1800		3600	1800	1800				
en de la companya de	<u>cpld</u> 7200		3600	1800	1800				
	onths 1		12	0	0				
ocean.			0 True	0 True	0 Truo				
use_lag_f &diag_integral_nml file_	uxes Truc name 'diag_		True 'diag	True 'diag	True 'diag				
Quiag-integrat-init inte-	integral.ou		integral.out'	integral.out'	integral.out'				
output_in	-		-1.0	-1.0	-1.0				
time.	units 'day:	s' 'days'	'days'	'days'	'days'				
&diag_manager_nml							True	True	True
debug_diag_manager issue_oor_war	nings Fals	e False	False	False	False	False	True	True	True
	axes 200		300	300	300	raise	iiue	iiue	iiue
	files 50		1000	1000	1000				
max_input_			700	700	700				
max_num_axis			40	40	40				
max_output_			700	700	700				
<pre>mix_snapshot_average_ &flux_exchange_nml</pre>									
divert_stocks_r									
do_area_weighted			True	True	True				
		4							
&fms_io_nml	uired				False				
fileset		'single'	'multi'	'multi'	'multi'	'single'	'single'	'multi'	'multi'
max_f			700	700	700				
<mark>max_fi</mark> threading			700 'multi'	700 'multi'	700 'multi'	'multi'	'multi'	'multi'	'multi'
threading.		'single'	'multi'	'multi'	'multi'	'single'	'single'	'multi'	'multi
&fms_nml clock_			'LOOP'	'LOOP'	'LOOP'	'LOOP'	'LOOP'	'LOOP'	'LOOP
domains_stacl	_size 500000		115200	115200	115200		115200	115200	115200
print_memory_		_	False	False	False				
		0 0							
&generic_tracer_nml do_gener			False	False	False				
do_generic_ do_generic_			False False	False False	False False				
	ange 10.		1 0136	1 0136	i alse				
&ice_model_nml add_diurn									
&ice_iiiouet_iiiit auu_uiuiii									
	b_ice 0.6		0.68	0.68	0.68				
a	b_ice 0.65 -sno 0.85	5 0.825	0.68 0.85	0.68 0.85	0.68 0.85				

Group (continued) Variable	original/ GFDL ESM2M input- cut.nml	original/ MOM_SIS TOPAZ input.nml	original/ fabio momsis1 input.nml	original/ paul_mom- sis025_in- put.nml	original/ fanghua mom- sis01v5KDS75 WOA13_in- put.nml	original/ russ- accessom- mom4p1- input.nml	new_acces- som2 1deg jra55_ryf input.nml	new_acces- som2 025deg jra55_ryf input.nml	new_acces- som2 01deg jra55_ryf input.nml
cm2_bugs do_icebergs h_lo_lim	False True $1 imes 10^{-10}$	False False 1×10^{-10}	False	False	False				
heat_rough_ice ice_bulk_salin	0.005	0.0005 0.005	0.0005 0.005	0.0005 0.005	0.0005 0.005				
io_layout layout	1, 2 15, 2		10, 12	64, 30 64, 30	8, 9 40, 45				
mom_rough_ice nsteps_adv	1	1	0.0005 1	0.0005 1	0.0005 6				
nsteps_dyn num_part	72 6	108 6	72 6	72 6	144 6				
spec_ice t_range_melt wd_turn	False 1.0 0.0	False 10.0 0.0	False 1.0 0.0	False 1.0 0.0	False 1.0 0.0				
&icebergs_nml add_weight_to_ocean	0.0		False	False	False				
bergy_bit_erosion_fraction debug make_calving_reproduce	True	0.0 False	0.0 False	0.0 False	0.0 False				
parallel_reprod	iiuc	True	True	True	True				
really_debug sicn_shift		False 0.1	False 0.1	False 0.1	False 0.1				
speed_limit	0.5								
time_average_weight traj_sample_hrs	False 0	0	0	0	0				
use_operator_splitting use_roundoff_fix	True	True	True	True	True				
verbose verbose_hrs	True 120	False 2400	False 2400	False 2400	False 2400				
&mom_oasis3_interface_nml fields_in	120	2400	2400	2400	2400	'u_flux',	'u_flux',	'u_flux',	'u_flux',
						'v_flux', 'lprec', 'fprec',	'v_flux', 'lprec', 'fprec',	'v_flux', 'lprec', 'fprec',	'v_flux', 'lprec', 'fprec',
						'salt_flx',	'salt_flx',	'salt_flx',	'salt_flx',
						'mh_flux', 'sw_flux',	'mh_flux', 'sw_flux',	'mh_flux', 'sw_flux',	'mh_flux', 'sw_flux',
						'q_flux',	'q_flux',	'q_flux',	'q_flux',
						't_flux', 'lw_flux',	't_flux', 'lw_flux',	't_flux', 'lw_flux',	't_flux', 'lw_flux',
						'runof', 'p', 'aice',	'runof', 'p', 'aice',	'runof', 'p', 'aice',	'runof', 'p', 'aice',
						wfimelt',	'wfimelt',	'wfimelt',	'wfimelt',
fields_out						'wfiform' 't_surf',	'wfiform' 't_surf',	'wfiform' 't_surf',	'wfiform' 't_surf',
nctus_out						's_surf',	's_surf',	's_surf',	's_surf',
						'u_surf', 'v_surf',	'u_surf', 'v_surf',	'u_surf', 'v_surf',	'u_surf', 'v_surf',
						'dssldx',	'dssldx',	'dssldx',	'dssldx',
						'dssldy', 'frazil'	'dssldy', 'frazil'	'dssldy', 'frazil'	'dssldy', 'frazil'
num_fields_in						15	15	15	15
num_fields_out						7	7	7	7
send_after_ocean_update send_before_ocean_update						True False	True False	True False	True False
&monin_obukhov_nml neutral	400	True	True	True	True		True	True	True
rich_crit stable_option	10.0 2								
zeta_trans	0.5								
&mpp_io_nml deflate_level shuffle					5 1		5 1	5 1	5 1
&ocean_adv_vel_diag_nml diag_step large_cfl_value	1200 10.0	12 10.0	4320 10.0	4320 10.0	43200 10.0	120 10.0	4320 10.0	4320 10.0	576 10.0
targe_ctt_value max_cfl_value	10.0	100.0	100.0	10.0	100.0	100.0	100.0	100.0	10.0
<pre> verbose_cfl &ocean_advection_velocity_nml</pre>	False 0.5	False 0.5	True 0.5	True 0.5	True 0.2	False 0.5	True 0.5	True 0.5	True 0.5
max_advection_velocity						0.5			
&ocean_albedo_option	5	2	10	2	2		2	2	2
&ocean_barotropic_nml barotropic_halo		False	10	10	10	False True	10	10	10
barotropic_leap_frog barotropic_pred_corr		True				Huc			
	True False	True	True False	True False	True False	iiuc	True False	True False	True False

Group (continued) Variable	original/ GFDL ESM2M input- cut.nml	original/ MOM_SIS TOPAZ input.nml	original/ fabio momsis1 input.nml	original/ paul_mom- sis025_in- put.nml	original/ fanghua mom- sis01v5KDS75 WOA13_in- put.nml	original/ russ- accessom- mom4p1- input.nml	new_acces- som2 1deg jra55_ryf input.nml	new_acces- som2 025deg jra55_ryf input.nml	new_acces- som2 01deg jra55_ryf input.nml
debug_this_module	False	False	False	False	False	False	False	False	False
diag_step do_bitwise_exact_sum	1200 True	12	4320	4320	43200	120	4320	4320	576
eta_max	8.0	8.0	8.0	8.0	8.0	8.0	8.0	8.0	8.0
frac_crit_cell_height	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
pred_corr_gamma smooth_eta_diag_laplacian	0.2 True	0.2 True	0.2 True	0.2 True	0.2 True	0.2 True	0.2 True	0.2 True	0.2 True
smooth_eta_t_biharmonic	True	True	True	True	False	True	False	False	False
smooth_eta_t_laplacian	False	False	False	False	True	False	True	True	True
smooth_pbot_t_biharmonic	True	True	True	True	False	True	False	False	False
<pre>smooth_pbot_t_laplacian truncate_eta</pre>	False False	False False	False False	False False	True False	False False	True False	True False	True False
use_legacy_barotropic_halos	rauc	raisc	False	False	False	raisc	False	False	False
vel_micom_bih	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01
vel_micom_lap	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05
<mark>vel_micom_lap_diag</mark> verbose_truncate	1.0 True	1.0 True	0.5 True	0.5 True	0.5 True	0.2 True	0.2 True	0.2 True	0.2 True
zero_tendency	False	False	False	False	False	False	False	False	False
&ocean_bbc_nml bmf_implicit			True	True	True		True	True	True
cdbot	0.002	0.002	0.001	0.001	0.001	0.001	0.001	0.001	0.001
cdbot_hi cdbot_law_of_wall			0.007	0.007	0.007	False	0.007	0.007	0.007
cdbot_roughness_length			False	False	False	1 0130	False	False	False
cdbot_roughness_uamp			True	True	True		True	True	True
uresidual	0.05	0.05	0.05	0.05	0.05		0.05	0.05	0.05
use_geothermal_heating	True	True	False	False	False	False	False	False	False
&ocean_bbc_ofam_nml read_tide_speed uresidual2_max						False 1.0			
&ocean_bih_friction_nml bih_friction scheme	'general'	'general'	'general'	'general'	'general'	'general'	'general'	'general'	'general'
&ocean_bih_tracer_nml tracer_mix_micom			True	True	True				
use_this_module vel_micom	False	False	False 0.001	False 0.001	False 0.001	False	False	False	False
&ocean_bihcst_friction_nml use_this module	False	False	False	False	False	False	False	False	False
&ocean_bihgen_friction_nml	True	True	False	False	False	True	False	False	False
bottom_5point eq_lat_micom	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
eq_vel_micom_aniso	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
eq_vel_micom_iso	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
equatorial_zonal	False	False	False	False	False	False	False	False	False
k_smag_aniso k_smag_iso	0.0 2.0	0.0 2.0	0.0 2.0	0.0 2.0	0.0 2.0	0.0 2.0	0.0 2.0	0.0 2.0	0.0 2.0
ncar_boundary_scaling	True	True	True	True	True	True	True	True	True
ncar_boundary_scaling_read			False	True	True		True	True	True
ncar_rescale_power	2	2	2	2	2	2	2	2	2
ncar_vconst_4	2×10^{-8}	2×10^{-8} 5	2×10^{-8} 5	$2 imes 10^{-8}$	$2 imes 10^{-8}$	2×10^{-8} 5	$\begin{array}{c} 2\times 10^{-8} \\ 5 \end{array}$	$\begin{array}{c} 2\times 10^{-8} \\ 5 \end{array}$	2×10^{-8} 5
ncar_vconst_5 use_this_module	True	True	True	True	True	True	True	True	True
vel_micom_aniso	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
vel_micom_bottom	0.01	0.01	0.0	0.0	0.0	0.01	0.0	0.0	0.0
vel_micom_iso	0.04 0.25	0.04 0.25	0.0 1.0	0.0 1.0	0.0 1.0	0.04 0.25	0.0 1.0	0.0 1.0	0.0 1.0
<pre>visc_crit_scale &ocean_convect_nml</pre>	0.23	0.23	True	True	True	False	1.0	1.0	1.0
convect_full_scalar			nuc	nuc	nac	ratse			
convect_full_vector			False	False	False	True			
use_this_module	False	False	False	False	False	False	False	False	False
&ocean_coriolis_nml acor use_this_module	0.5 True	0.5 True	0.5 True	0.5 True	0.5 True	0.5 True	0.5 True	0.5 True	0.5 True
&ocean_density_nml eos_linear	False	iiuc	False	False	False	iiuc	False	False	False
eos_preteos10	True		True	True	True		True	True	True
	80	80	80	80	80	80 False	80	80	80
layer_nk						False			
linear_eos		False	10700	10700	10790	10700	10700	10700	10700
•	1030.0	1030.0	1038.0 1028.0	1038.0 1028.0	1038.0 1028.0	1030.0 1020.0	1038.0 1028.0	1038.0 1028.0	1038.0 1028.0
linear_eos neutralrho_max		1030.0 1020.0 1038.0	1028.0 1038.0	1038.0 1028.0 1038.0	1038.0 1028.0 1038.0	1020.0 1038.0	1028.0 1038.0	1038.0 1028.0 1038.0	1028.0 1038.0
linear_eos neutralrho_max neutralrho_min potrho_max potrho_min	1030.0 1020.0	1030.0 1020.0	1028.0	1028.0	1028.0	1020.0 1038.0 1028.0	1028.0	1028.0	1028.0
linear_eos neutralrho_max neutralrho_min potrho_max potrho_min teos10_eos	1030.0 1020.0 1038.0	1030.0 1020.0 1038.0	1028.0 1038.0	1028.0 1038.0	1028.0 1038.0	1020.0 1038.0 1028.0 False	1028.0 1038.0 1028.0	1028.0 1038.0 1028.0	1028.0 1038.0 1028.0
linear_eos neutralrho_max neutralrho_min potrho_max potrho_min teos10_eos &ocean_domains_nml max_tracers	1030.0 1020.0 1038.0 1028.0	1030.0 1020.0 1038.0 1028.0	1028.0 1038.0	1028.0 1038.0	1028.0 1038.0	1020.0 1038.0 1028.0	1028.0 1038.0	1028.0 1038.0	1028.0 1038.0
linear_eos neutralrho_max neutralrho_min potrho_max potrho_min teos10_eos	1030.0 1020.0 1038.0	1030.0 1020.0 1038.0	1028.0 1038.0	1028.0 1038.0	1028.0 1038.0	1020.0 1038.0 1028.0 False	1028.0 1038.0 1028.0	1028.0 1038.0 1028.0	1028.0 1038.0 1028.0

Group (continued) Variable	original/ GFDL ESM2M input- cut.nml	original/ MOM_SIS TOPAZ input.nml	original/ fabio momsis1 input.nml	original/ paul_mom- sis025_in- put.nml	original/ fanghua mom- sis01v5KDS75_ WOA13_in- put.nml	original/ russ- accessom- - mom4p1- input.nml	new_acces- som2 1deg jra55_ryf input.nml	new_acces- som2 025deg jra55_ryf input.nml	new_acces- som2 01deg jra55_ryf input.nml
&ocean_frazil_nml debug_this_module	False	False	False	False	False		False	False	False
frazil_only_in_surface freezing_temp_accurate	True	True False	True	True	True	False True	False	False	False
freezing_temp_accurate		raisc				iiuc	True	True	True
freezing_temp_simple	True	True	True	True	True	False	False	False	False
use_this_module	True	True	True	True	True	True	True	True	True
&ocean_grids_nml debug_this_module do_bitwise_exact_sum	True True	True	False	False	False	True	False	False	False
read_rho0_profile	False	False				False			
&ocean_increment_eta_nml						0			
days_to_increment									
fraction_increment secs_to_increment						1.0 3600			
use_this_module	False	False	False	False	False	False	False	False	False
&ocean_increment_tracer_nml						0			
days_to_increment fraction_increment						1.0			
secs_to_increment	Falsa	Falsa	Falsa	Falsa	False	3600 False	Falsa	Falsa	Falsa
use_this_module &ocean_increment_velocity_nml	False	False	False	False	False	False 0	False	False	False
days_to_increment						U			
fraction_increment						1.0			
secs_to_increment						3600			
use_this_module &ocean_lap_friction_nml lap_friction	False 'general'	False 'general'	False 'general'	False 'general'	'annoral'	False 'general'	False 'general'	False	False 'general'
scheme	general	yenerat	general	generat	'general'	generat	general	'general'	generat
&ocean_lap_tracer_nml use_this module	False	False	False	False	False	False	False	False	False
&ocean_lapcst_friction_nml use_this module	False	False	False	False	False	False	False	False	False
&ocean_lapgen_friction_nml	True	True				True	True		
oottom_5point k_smaq_aniso	0.0	0.0				0.0	0.0		
k_smag_iso	0.0	0.0	2.0	2.0	2.0	0.0	0.0		
ncar_only_equatorial						True	True		
restrict_polar_visc	True	True				True	True		
restrict_polar_visc_lat restrict_polar_visc_ratio	60.0 0.35	60.0 0.35				60.0 0.35	60.0 0.35		
use_this_module	True	True	False	False	False	True	True	False	False
vconst_1						0.000 000 8	8 000 000.0		
vconst_2						0.0	0.0		
vconst_3 vconst_4						$0.8 \\ 5 \times 10^{-9}$	$0.8 \\ 5 \times 10^{-9}$		
vconst_5						3	3 ~ 10		
vconst_6						300 000 000.0	300 000 000.0		
vconst_7	•	• •				100.0	100.0		
vel_micom_iso	0.1	0.1				0.1	0.1		
viscosity_ncar viscosity_ncar_2000	False	False				False False	True False		
viscosity_ncar_2007						True	True		
viscosity_scale_by_rossby	True	True				True	True		
<pre>viscosity_scale_by_rossby_power &ocean_mixdownslope_nml</pre>	4.0 False	4.0 False	False	False	False	4.0 False	100.0 False		
&ocean_mxdownstope_mmt debug_this_module	raise	raise	raise	raise	raise	raise	rdise		
mixdownslope_mask_gfdl	True	True				False	False		
mixdownslope_npts	_ 4	_ 4				. 4	. 4		
read_mixdownslope_mask use_this_module	True True	True True	False	False	False	False True	False True	False	False
&ocean_model_nml baroclinic_split	1	1	1	1	1	1	1	1	1
barotropic_split	80	80	80	80	60	80	80	80	80
cmip_units	False					True	True	True	True
debug dt_ocean	False 7200	False 7200	False 3600	False 1800	False 150	False 3600	False 3600	False 1200	False 150
impose_init_from_restart	True	7200 False	0000	1000	130	0000	טטטכ	1200	130
io_layout	1, 4			64, 30	8,9		4, 3	6,5	10, 15
layout	12, 8	6, 4	10, 12	64, 30	40, 45	12, 10	16, 15	48,40	80, 75
surface_height_split	1 'twolovol'	1 'twolovol'	1 'twolovol'	1 'twolovol'	1 'twolovol'	1 'twolovol'	1 'twolovol'	1 'twolovol'	²twolovol
time_tendency vertical_coordinate	'twolevel' 'zstar'	'twolevel' 'zstar'	'twolevel' 'zstar'	'twolevel' 'zstar'	'twolevel' 'zstar'	'twolevel' 'zstar'	'twolevel' 'zstar'	'twolevel' 'zstar'	'twolevel' 'zstar'
&ocean_momentum_source_nml	23(0)	23(0)	False	False	False	23(0)	False	False	False
rayleigh_damp_exp_from_bottom									
use_rayleigh_damp_table			True	True	True	True	True	True	True
use_raytergri_damp_table use_this_module	False	False	True	True	True	True	True	True	True

Group (continued)	Variable	original/ GFDL ESM2M input- cut.nml	original/ MOM_SIS TOPAZ input.nml	original/ fabio momsis1 input.nml	original/ paul_mom- sis025_in- put.nml	original/ fanghua mom- sis01v5KDS75 WOA13_in- put.nml	original/ russ- accessom- - mom4p1- input.nml	new_acces- som2 1deg jra55_ryf input.nml	new_acces- som2 025deg jra55_ryf input.nml	new_acces- som2 01deg jra55_ryf input.nml
&ocean_nphysics_nml module	debug_this	False	False	False	False	False	False	False	False	False
	se_nphysicsa	False	False	False	False	False	False	False	False	False
	se_nphysicsb	False	True	False	False	False	False	False	False	False
<u></u>	se_nphysicsc	True	False	False	False	False	True	True	False	False
	_this_module	True	True	False	False	False	True	True	False	False
&ocean_nphysics_util_nml	agm_closure	800.0 True	800.0 True	100.0 True	100.0 True	100.0 True	600.0 True	600.0 True	100.0 True	100.0 True
	re_baroclinic	True	True	True	True	True	True	True	True	True
•	re_buoy_freq	0.004	0.004	0.004	0.004	0.004	0.004	0.004	0.004	0.004
agm_closure_ead		True	True				True	True		
	ure_eady_cap	True	True				True	True		
agm_closure_eady_		True	True				True	True True		
agm_closure_eady_ agm_closure_e		True 0.0	True 0.0				True 0.0	0.0		
agm_closure_ede		False	False				False	False		
-	_grid_scaling	True	True				True	True		
	osure_length	50 000.0	50 000.0	50 000.0	50 000.0	50 000.0	50 000.0	50 000.0	50 000.0	50 000.0
agm_closure_le		False	False	False	False	False	False	False	False	False
agm_closure_ agm_closure_lo	_	False False	False False	False False	False False	False False	False False	False False	False False	False False
agm_closure_		2000.0	2000.0	2000.0	2000.0	2000.0	2000.0	2000.0	2000.0	2000.0
•	_closure_max	800.0	800.0	600.0	600.0	600.0	600.0	600.0	600.0	600.0
	_closure_min	100.0	100.0	100.0	100.0	100.0	50.0	50.0	100.0	100.0
	osure_scaling	0.07	0.07	0.07	0.07	0.07	0.07	0.07	0.07	0.07
agm_closure_		100.0 45.0	100.0 45.0	100.0	100.0	100.0	100.0 45.0	100.0 45.0	100.0	100.0
	amping_time mooth_space	False	False				False	False		
	smooth_time	False	False				False	False		
	aredi	600.0	600.0	600.0	600.0	600.0	600.0	600.0	600.0	600.0
	li_equal_agm	False	False	False	False	False	False	False	False	False
	odz_mom4p1	True	True	False	False	False	True	True	False	False
	.smooth_horz _smooth_vert	False False	False False	False False	False False	False False	False False	False False	False False	False False
	util_zero_init	True	True	raisc	raisc	raisc	True	True	raisc	raisc
	y_radius_max	100 000.0	100 000.0	100 000.0	100 000.0	100 000.0	100 000.0	100 000.0	100 000.0	100 000.0
rossb	y_radius_min	15 000.0	15 000.0	15 000.0	15 000.0	15 000.0	15 000.0	15 000.0	15 000.0	15 000.0
	smax	0.005	0.005	0.002	0.002	0.002				
tracei	swidth r_mix_micom	0.002 False	0.002 False	0.002 False	0.002 False	0.002 False	False	False	False	False
tracer	vel_micom	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
&ocean_nphysicsa_nml		False	False							
debug_this_module	ear_gm_taper	True	True							
	physics_limit	True	True							
	rysics_simple	False	False							
· · · · · · · · · · · · · · · · · · ·	al_sine_taper	True	True							
	k_neutral_on	True	True	Falsa	F-1	Falas	F-1	Falsa	Falsa	F-1
&ocean_nphysicsb_nml	_this_module	False False	False False	False	False	False	False	False	False	False
debug_this_module		Tube	raise							
	.ayer_smooth	True	True							
	physics_limit	True	True							
	rb_thick_min _thick_min_k	50.0 5	50.0 5							
	_this_module	False	True	False	False	False	False	False	False	False
&ocean_nphysicsc_nml bv_freq_smooth_vert		True					True	True		
	ovp_bc_mode	2					2	2		
bv	p_min_speed	0.1					0.1	0.1		
d-bar-	bvp_speed	0.0					0.0	0.0		
	_this_module gm_skewsion	False True					False True	False True		
	tral_diffusion	True					True	True		
	psln_bv_freq	1×10^{-12}					1×10^{-12}	1×10^{-12}		
e		True					True	True		
gm_skewsio	n_bvproblem						False	False		
gm_skewsio gm_skev	wsion_modes	False								
gm_skewsio gm_skev neutral	wsion_modes l_eddy_depth	False True					True	True		
gm_skewsio gm_skev neutral neutral	wsion_modes l_eddy_depth physics_limit	False True True					True True	True True		
gm_skewsio gm_skev neutral neutral numb	wsion_modes l_eddy_depth physics_limit er_bc_modes	False True True 2					True True 2	True True 2		
gm_skewsio gm_skev neutral neutral numb	wsion_modes l_eddy_depth physics_limit	False True True					True True	True True		

March Marc	Group (continued) Variable	e original/ GFDL ESM2M input- cut.nml	original/ MOM_SIS TOPAZ input.nml	original/ fabio momsis1 input.nml	original/ paul_mom- sis025_in- put.nml	original/ fanghua mom- sis01v5KDS75 W0A13_in- put.nml	original/ russ- accessom- mom4p1- input.nml	new_acces- som2 1deg jra55_ryf input.nml	new_acces- som2 025deg jra55_ryf input.nml	new_acces- som2 01deg jra55_ryf input.nml
The content						•				
Second programmer and True False			Ealco	Ealco	Ealco	Ealco			Ealco	Ealco
Section Part Pale			raise				irue			
## 15th module Content Fiste Fi	•	iide		rubc	ruisc	rusc		Tutse	ruisc	ruisc
Part	-	- False	False	False	False	False	False	False	False	False
Overstack_marght 4		- Ealso	Ealco				Ealco			
Part				4	4	4		4	4	4
March False Fals		r False		False	False			False		
False Fals										
False Fals								False	False	False
False Fals		Tube	ruisc	rubc	ruisc	rusc	raise			
Barrier Barr		e False	False				False	False	False	False
				False	False	False				
False Fals		n		4320	4320	43200				
True exchange and 10 00000000 1000000000 1000000000 100000000										
March Marc	do_mass_of	D		True	True	True				
False Fals										
Access polar filter, and use this. False F								False	False	False
False Fals			False				False			
Access A										
Access Comment Comme				False	False	False		False	False	False
Pale False		40.0	40.0							
District Parks False True		10.0	10.0							
True				False	False	False	False	False	False	False
False True Tru			True							
Part			False	False	False	False	False	True	True	True
Part										
river insertion. Inicidness 40.0 40.0 40.0 40.0 40.0 40.0 40.0 40										
Month Mont		•								
True				U.UT	TU.U	+0.0	TU.U	T0.0	TU.U	TU.U
Seed of the content	use_this_modul			True	True	True	True	True	True	True
False False False False True True True True False				'.false'	'.false'	'.false'				
&occan_rough_nml fought scheme beljaars'		False	False	True	True	True	True	False	False	False
## Cocon.sbc.nnl avg.sfc.temp.salt.eta							nuc			
Calvingspread Guingspread Guin	&ocean_sbc_nml avg_sfc_temp_salt_et	a True	True	True	True	True	True		True	True
do bitwise exact sum do flux correction True et al. False de la restore tscale and conflux correction and model heat. fluxes and conflux correction and model heat. fluxes are responsible to the flux of the flux							True			
do flux correction de la cestore. Incade de la restore. Incade de la restore. Incade de la restore. Incade de la restore. Incade de la cestore. Incade de			False							
True False										
land model heat fluxes max delta salinity, restore 0.5 0.5 0.5 0.5 0.5 0.5 0.5 0.5 0.5 0.5										
max_delta_salinity_restore 8.0 8.0 1.0 1.0 1.0 8.0 0.0 </td <td></td> <td></td> <td>Ealco</td> <td>Ealco</td> <td>Ealco</td> <td>Ealco</td> <td>0.005</td> <td>Ealco</td> <td>Ealco</td> <td>Ealco</td>			Ealco	Ealco	Ealco	Ealco	0.005	Ealco	Ealco	Ealco
max_ice_thickness			raise				0.5			
restore_mask_gfdl runoff_salinity			8.0							
runoffspread False False Salt correction scale 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.										
runoffspread False False Salt correction scale 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.										
salt_correction_scale 0.0 60.0			False	0.0	0.0	0.0	0.0	0.0	0.0	0.0
salt_restore_tscale —10.0 —10.0 60.0 60.0 60.0 15.0 60.0 60.0 60.0 60.0 60.0 60.0 60.0 6	salt_correction_scal	e 0.0								
salt_restore_under_ice			400							
tau x correction scale 0.0 tau y correction scale 0.0 temp_correction_scale 1.0 temp_restore_tscale 1.0 temp_restore_tscale 1.0 temp_to_t_scale 1.			-10.0							
tau_y_correction_scale				iiue	nue	irue	iiuc	iiuc	iiuc	nue
temp_restore_tscale		e 0.0								
use_full_patm_for_sea_level True True False True True <t< td=""><td>_ ·</td><td></td><td>100</td><td>100</td><td>100</td><td>100</td><td>1.0</td><td>100</td><td>100</td><td>100</td></t<>	_ ·		100	100	100	100	1.0	100	100	100
use_waterflux True							-1.0			
use_waterflux_override_evap False use_waterflux_override_fprec False waterflux_tavg False	-						True			
<mark>use_waterflux_override_fprec</mark> False <mark>waterflux_tavg</mark> False False False False False zero_heat_fluxes False F	· · · · · · · · · · · · · · · · · · ·	<u> </u>								
waterflux_tavg False Fal										
zero_heat_fluxes False False False False False False			False				False			
zero_net_pme_eta_restore False		-	. 4.50	False	False	False		False	False	False
	zero_net_pme_eta_restor	e False								

Group (continued)	Variable	original/ GFDL ESM2M input- cut.nml	original/ MOM_SIS TOPAZ input.nml	original/ fabio momsis1 input.nml	original/ paul_mom- sis025_in- put.nml	original/ fanghua mom- sis01v5KDS75 WOA13_in- put.nml	original/ russ- accessom- mom4p1- input.nml	new_acces- som2 1deg jra55_ryf input.nml	new_acces- som2 025deg jra55_ryf input.nml	new_acces- som2 01deg jra55_ryf input.nml
zero_net_salt_co	orrection			False	False	False		False	False	False
zero_net_salt				True	True	True	True	True	True	True
zero_net_water_co				False	False	False	Truo	False	False	False
zero_net_water_couple zero_net_water				True True	True True	True True	True True	True True	True True	True True
zero_net_water				True	True	True	True	True	True	True
zero_rive						False False				
zero_runo				Falsa	False	True	Falsa	False	Falsa	Falsa
zero_surfac zero_wate				False False	False False	False False	False False	False False	False False	False False
&ocean_sbc_ofam_nml				. 4.50	1 4130	. 4.50	False	1 4.50	1 4.50	
restore_mask_ofam										
river_ten	np_ofam						False			
&ocean_shortwave_csiro_nml				True			True			
read_depth use_this. zr	_module max_pen	False	False	True 7000	False	False	True 7000	False	False	False
	debug	False	False	False	False	False	False	False	False	False
this_module	-	_	_			_				
	_sw_frac	True	True	True	True	True	True	True	True	True
optics_ optics_morel.	manizza antoine	True False	True False	True False	True False	True False	True	True False	True False	True False
	ide_f_vis	False	False	i alse	raise	i alse		Talse	raise	1 0130
	read_chl	False	False	False	True	True	False False	True	True	True
use_this.	_module	True	True	False	True	True	False	True	True	True
	max_pen	200.0	200.0	300.0	300.0	300.0	200.0	300.0	300.0	300.0
&ocean_shortwave_jerlov_nml this_module	use	False False	False	False	False	False False	False True	False False	False	False
&ocean_shortwave_nml use_shortwave_csiro use_shortwa	ave ofdl	True	False True	True False	False True	True	False	True	False True	False True
use_shortway		False	False	False	False	False	False	False	False	False
use_this.		True	True	True	True	True	True	True	True	True
&ocean_sigma_transport_nml sigma_advection_on		False	False	False	False	False	False			
sigma_advection_		False	False	False	False	False	False			
sigma_diffu sigma_diffusiv		True $1 imes 10^{-6}$	True $1 imes 10^{-6}$	True $1 imes 10^{-6}$	True 1×10^{-6}	True $1 imes 10^{-6}$	True $1 imes 10^{-6}$			
sigma_just_in_boti	,	True	True	True	True	True	True			
	na_umax	0.01	0.01	0.01	0.01	0.01	0.01			
smooth_sigma_ti	hickness	True	True	True	True	True	True			
smooth_sigma.		True	True	True	True	True	True			
smooth_v thickness_sigr		0.2 100.0	0.2 100.0	0.2 100.0	0.2 100.0	0.2 100.0	0.2 100.0			
thickness_sig		100.0	100.0	100.0	100.0	100.0	100.0			
thickness_sig		100.0	100.0	100.0	100.0	100.0	100.0			
tmask_s	igma_on	False	False	False	False	False	False			
tracer_mix		True	True	True	True	True	True			
use_this.	_module l_micom	True 0.05	True 0.05	False 0.05	False 0.05	False 0.05	True 0.05	False	False	False
	calendar	0.03	0.03	0.03	0.03	0.03	'NOLEAP'	'NOLEAP'	'NOLEAP'	'NOLEAP'
	date_init						1, 1, 1, 0, 0, 0	1, 1, 1, 0, 0, 0	1, 1, 1, 0, 0, 0	1, 1, 1, 0, 0, 0
	days						0	1460	31	30
	dt_cpld						3600	3600	1200	600
	hours minutes						0	0 0	0	0
	months						12	0	0	0
	seconds						0	0	0	0
	years							0	0	0
module	se_this	False	False	False	False	False	False	False	False	False
&ocean_sponges_tracer_nml		False	False	False	False	False	False			False
damp_coeff_3d use_this.	module	False	False	False	False	False	False	False	False	False
&ocean_sponges_velocity_nml	use	False	False	False	False	False	False	False	False	False
this_module										
&ocean_submesoscale_nml coefficient_ce				0.05	0.05	0.05		0.05	0.05	0.05
debug_this		False	False	False	False	False	False	False	False	False
front_leng		5000.0	5000.0	5000.0	5000.0	5000.0	5000.0	5000.0	5000.0	5000.0
front_length_deforr	II_I dUIUS	True	True	True	True	True	True	True	True	True

Group (continued)	Variable	original/ GFDL ESM2M input- cut.nml	original/ MOM_SIS TOPAZ input.nml	original/ fabio momsis1 input.nml	original/ paul_mom- sis025_in- put.nml	original/ fanghua mom- sis01v5KDS75 WOA13_in- put.nml	original/ russ- accessom- mom4p1- input.nml	new_acces- som2 1deg jra55_ryf input.nml	new_acces- som2 025deg jra55_ryf input.nml	new_acces- som2 01deg jra55_ryf input.nml
	limit_psi	True	True	True	True	True	True	True	True	True
limit_psi	_velocity_scale min_kblt	0.5 4	0.5 4	0.5 4	0.5 4	0.5 4	0.5 4	0.5 4	0.5 4	0.5 4
smooth_ad	lvect_transport		'	True	True	True		True	True	True
smooth_advect_				4	4	4		4	4	4
	smooth_hblt	False	False	False	False	False	False	False	False	False
co	smooth_psi			True 3	True 3	True 3		True 3	True 3	True 3
	nooth_psi_num so_advect_flux			False	False	False		False	False	False
	o_advect_limit			True	True	True		True	True	True
submeso_i	advect_upwind			True	True	True		True	True	True
	dvect_zero_bdy			True	True	True		True	True	True
submeso_diffusi	meso_diffusion			False True	False True	False True		False True	False True	False True
	diffusion_scale			10.0	10.0	10.0		10.0	10.0	10.0
	neso_limit_flux	True	True	10.0	10.0	10.0	True	10.0	10.0	10.0
subm	neso_skew_flux			True	True	True		True	True	True
	nblt_equal_mld	True	True	True	True	True	True	True	True	True
	use_psi_legacy	True	T	False	False	False	Tr.va	False	False	False
us &ocean_tempsalt_nml	e_this_module	True False	True False	True False	True False	True False	True	True False	True False	True False
debug_this_module		1 0150	ו מנטכ	1 4150	1 0125	i alse		ו מנטכ	ו מנטכ	raise
	_2nd_iteration	True	True	True	True	True	True	True	True	True
pottemp_6	equal_contemp			True	True	True		True	True	True
	s_max	55.0	55.0	70.0	70.0	70.0	55.0	70.0	70.0	70.0
	s_max_limit s_min	42.0 —1.0	42.0 —1.0	42.0 0.0	42.0 0.0	42.0 0.0	42.0 —1.0	42.0 0.0	42.0 0.0	42.0 0.0
	s_min_limit	-1.0 5.0	-1.0 5.0	2.0	2.0	2.0	0.0	2.0	2.0	2.0
	t_max	55.0	55.0	55.0	55.0	55.0	55.0	55.0	55.0	55.0
	t_max_limit	32.0	32.0	32.0	32.0	32.0	32.0	32.0	32.0	32.0
	t_min	-5.0	-5.0	-20.0	-20.0	-20.0	-5.0	-20.0	-20.0	-20.0
tompo	t_min_limit	-1.9	-1.9 'potential	-5.0	—5.0	—5.0 'potential	-2.0 conservative	-5.0	-5.0	—5.0 'potential
temper	rature_variable	'potential temp'	temp'	'potential temp'	'potential temp'	temp'	temp'	'potential temp'	'potential temp'	temp'
0 111	teos10						False			
&ocean_thickness_nml module	debug_this	False	False	False	False	False	False	False	False	False
	_module_detail	False	False	False	False	False	False	False	False	False
	ialize_zero_eta	False	False				False			
	ale_rho0_mask	True	True	F-1	F-I	F-I	False	F-1	E-I	F-I
	to_get_ht_mod o0_basin_label	7.0	7.0	False	False	False	7.0	False	False	False
	ho0_mask_qfdl	True	True				False			
	ale_rho0_value	0.75	0.75				0.75			
	kness_dzt_min	2.0	2.0	2.0	2.0	2.0	1.0			
	ss_dzt_min_init	2.0	2.0	10.0	10.0	10.0	2.0			
thic &ocean_time_filter_nml	kness_method	'energetic' False	'energetic' False	'energetic'	'energetic'	'energetic'	'energetic'	'energetic'	'energetic'	'energetic'
use_this_module		rdise	raise							
&ocean_topog_nml	min_thickness	5.0	5.0				25.0			
&ocean_tracer_advect_nn	nl	False	False	False	False	False	True			
advect_sweby_all							-			
compute_gyre_over	rturn_alagnose lq_this_module	False	False	False	False	False	True False	False	False	False
	_fast_compute	raisc	raisc	1 4130	ratsc	raisc	True	raisc	raisc	raisc
	t_with_upwind	False	False							
	ad_basin_mask			False	False	False	True	False	False	False
&ocean_tracer_diag_nml	diag_step	1200	12	48	48	43200	120	4320	4320	576
do_bitw	vise_exact_sum smooth_mld	False True	False True	False	False	False	False	False	False	False
tracer	conserve_days	100.0	100.0	30.0	30.0	30.0	1.0	30.0	30.0	30.0
&ocean_tracer_nml age_t		$1 \times 10^{+40}$	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	g_this_module	False	False	False	False	False	False	False	False	False
frazil_heating.	_after_vphysics	True	True	True	True	True	True	True	True	True
frazil_heating_b		False	False	False	False	False	False	False	False	False
	tdiag_to_pbott	False False								
the state of the s	tprog_to_pbott mit_age_tracer	False True	True	True	True	True	True	True	True	True
	depth_to_s_init	False	False	False	False	False	False	False	False	False
•	_limit_ts_same	True	True	. 200	. 4.50	. 2.00		. 200	. 200	, 4.56
	lt chack range					True		True	True	True
use_tempsa										
	zero_tendency o_tracer_source	False False	False False	False False	False False	False False	False False	False False	False False	False False

$ \begin{array}{cccccccccccccccccccccccccccccccccccc$	False 576 5760 10.0 100.0 True
Many 1200 121 4320 4320 43200 120 4320 4320 43200 120 4320 4320 4320 120 4320 4320 120 4320 4320 120 4320 4320 120 4320 4320 120 4320 4320 120 4320 4320 120 4320 4320 120 4320 4320 120 432	5760 10.0 100.0 True
Renemy Lake 1200	5760 10.0 100.0 True
True	100.0 True
True	True
Dashforth.third Truncate.velocity False	1.0
truncate velocity truncate, velocity value 2.0 2.0<	
Truncate velocity value 20 20 20 20 20 20 20 2	False
Palse False Fals	2.0
False Fals	True
False Fals	False
False Fals	False False
Use: 11st module False False Second False Second False Second Seco	False
False Fals	False
& ceean_vert_kpp_mom4p1_nml 0.0 0.0 0.0 0.0 0.0 0.0 double_diffusion limit True True True False Fa	
Mouble_diffusion True Missandard_method True False	0.0
Raise False Fals	True
Smooth District 0.3	False
Smooth ri kmax. eq. kmu True Tr	0.3
True	False
No.	True True
&ocean_vert_kpp.nml diff_cbt_iw diff_con_limit 0.0 0.1 double_diffusion True True True kbl_standard_method 0.3 0.3 0.3 smooth_blmc True True True use_this_module True True True visc_con_limit 0.0 0.0 0.0 visc_con_limit 0.675	0.0
Company	
Main	
Ref	
Smooth_blind use this_module True Use Crbu iw 0.0 0.0 0.0 0.0	
True Visc cbu iw Visc column Visc co	
visc_con_limit 0.0 &ocean_vert_mix_nml afkph_00 on 0.675 on 0.675 on 0.675 on 0.725 on	
visc_con_limit 0.675 0.675 0.675 0.675 0.675 0.675 0.675 0.675 0.675 0.725	
&ocean_vert_mix_nml afkph_90 0.675 0.675 0.675 0.725	
$\begin{array}{c ccccccccccccccccccccccccccccccccccc$	
$\begin{array}{c ccccccccccccccccccccccccccccccccccc$	4.0
$\begin{array}{c ccccccccccccccccccccccccccccccccccc$	1.0 False
$ \begin{array}{c ccccccccccccccccccccccccccccccccccc$	False
$\begin{array}{c ccccccccccccccccccccccccccccccccccc$	
$\begin{array}{c ccccccccccccccccccccccccccccccccccc$	
$\begin{array}{cccccccccccccccccccccccccccccccccccc$	False
$\begin{array}{cccccccccccccccccccccccccccccccccccc$	$\times 10^{-6}$
$\begin{array}{cccccccccccccccccccccccccccccccccccc$	20.0
$\begin{array}{cccccccccccccccccccccccccccccccccccc$	
$\frac{1}{5}$ $\frac{10^{-5}}{4.5 \times 10^{-5}}$ $\frac{1}{4.5 \times 10^{-5}}$ $\frac{1}{4.5 \times 10^{-5}}$	
use_diff_cbt_table	False
vert_diff_back_via_max	True
vert_mix_scheme 'kpp 'kpp' 'kpp 'kpp 'kpp 'kpp 'kpp	'kpp
mom4p1' mom4p1' mom4p1' mom4p1' mom4p1' mom4p1' mom4p1' n zfkph_00	mom4p1'
zfkph_90 250 000 000.0 250 000 000.0 250 000 000.0 250 000.0	
&ocean_vert_tidal_nml 0.0 0.0 0.0 0.0 0.0 5 \times 10 $^{-6}$ 0.0 0.0 background_diffusivity	0.0
background_viscosity 0.0001 0.0001 0.0001 0.0001 0.0001 0.0001 0.0001 0.0001	0.0001
decay_scale 300.0 300.0 500.0 500.0 300.0 500.0	500.0 True
	$\times 10^{-10}$
fixed_wave_dissipation False False False False False False False False	False
max_drag_diffusivity 0.01	001
max_wave_diffusivity 0.01 0.01 0.01 0.01 0.01 0.01 0.01 0.0	0.01 True
mixing_efficiency_n2depend True True True True True True True True	True
read_tide_speed True True True True True True True True	True
read_wave_dissipation False False False False False False False	False

Group (continued)	Variable	original/ GFDL ESM2M input- cut.nml	original/ MOM_SIS TOPAZ input.nml	original/ fabio momsis1 input.nml	original/ paul_mom- sis025_in- put.nml	original/ fanghua mom- sis01v5KDS75 W0A13_in- put.nml	original/ russ- accessom- mom4p1- input.nml	new_acces- som2 1deg jra55_ryf input.nml	new_acces- som2 025deg jra55_ryf input.nml	new_acces- som2 01deg jra55_ryf input.nml
reading_ı	roughness_amp	True	True	True	True	True	True	True	True	True
	ughness_length	False	False	False	False	False	False	False	False	False
r	oughness_scale	30 000.0	30 000.0	12 000.0	12 000.0	12 000.0	20 000.0	12 000.0	12 000.0	12 000.0
she	lf_depth_cutoff	160.0	160.0	-1000.0	-1000.0	-1000.0	160.0	-1000.0	-1000.0	-1000.0
tide_speed.	_data_on_t_grid	True	True	True	True	True	True	True	True	True
use_d	rag_dissipation	True	True	True	True	True	True	True	True	True
use_l	egacy_methods	True		False	False	False		False	False	False
u:	se_this_module	True	True	True	True	True	True	True	True	True
use_w	ave_dissipation	True	True	True	True	True	True	True	True	True
wave_ei	nergy_flux_max	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
&ocean_xlandinsert_nml		True	True	False	False	False	False	False	False	False
use_this_module										
	verbose_init	True	True				True			
&ocean_xlandmix_nml u:	se_this_module	True	True	False	False	False	False	False	False	False
	verbose_init	True	True				True			
	xlandmix_kmt	True	True				True			
&redseafix_nml reds	ea_gulfbay_sfix			True						
&sat_vapor_pres_nml		True	True							
construct_table_wrt_liq										
construct_table_v	wrt_liq_and_ice	True	True							
show.	_all_bad_values					True				
&surface_flux_nml r	rcar_ocean_flux			True	True	True				
	old_dtaudv	False								
	raoult_sat_vap			True	True	True				
&topography_nml	topog_file	'INPUT/	'INPUT/							
		navy_topog-	navy_topog-							
		ra-	ra-							
		phy.data.nc'	phy.data.nc'							
&xgrid_nml	do_alltoall			True	True	True				True
	do_alltoallv			True	True	True				True
	interp_method	'second	'second	'second	'second	'second		'second	'second	'second
		order'	order'	order'	order'	order'		order'	order'	order
make_excha	inge_reproduce	True	True	False	False	False		False	False	False
	nsubset			16	16	16		16	16	16
	xgrid_log			False	False	False				

5 All variables in ACCESS configs (differences highlighted)

Group	Variable	original/ kiss_acces- som2 025deg jra55_ryf log- file.000000.ou	original/ russ- accessom- mom4p1- input.nml	new_acces- som2 1deg jra55_ryf input.nml	new_acces- som2 025deg jra55_ryf input.nml	new_acces- som2 01deg jra55_ryf input.nml
&auscom_ice_nml	aice_cutoff	0.15	0.15	0.15	0.15	0.15
	chk_fields_period	1				
	chk_fields_start_time	0	Falsa	F-I	F-I	F-I
	chk_i2o_fields chk_o2i_fields	False False	False False	False False	False False	False False
	do_ice_once	False	False	False	False	False
	dt_cpl	1800	3600	3600	1800	600
	fixmeltt	False	False	False	False	False
	frazil_factor iceform_adj_salt	1.0 False	1.0 False	1.0 False	1.0 False	1.0 False
	icemlt_factor	1.0	1.0	1.0	1.0	1.0
	ige	345				
	igs ire1	328				
	ire2	324 331				
	irs1	314				
	irs2	325				
	<u>jge</u>	198				
	jgs jre1	189 196				
	jre2	180				
	jrs1	169				
	jrs2	169	-	-	-	-
	kmxice <mark>ksmax</mark>	5 5	5	5	5	5
	limit_srfstress	False				
	mstress	2.0				
	pop_icediag	True	True	True	True	True
	redsea_gulfbay_sfix sfix_hours	False 12		True		
	sign_stflx	1.0	1.0	1.0	1.0	1.0
	tlthkO	10.0				
	tmelt	-0.216	-0.216	-0.216	-0.216	-0.216
&bg_diff_lat_dependence_nml	use_ioaice bg_diff_eq	True	$\frac{\text{True}}{1\times 10^{-6}}$	$\frac{\text{True}}{1 \times 10^{-6}}$	True	True
aby_am_tac_acpendence_min	lat_low_bgdiff		20.0	20.0		
&data_override_nml	debug_data_override	False				
0.1	grid_center_bug	False				
&diag_manager_nml	append_pelist_name conserve_water	False True				
	debug_diag_manager	True		True	True	True
	do_diag_field_log	False				
	issue_oor_warnings	True	False	True	True	True
	max_axes max_field_attributes	60 2				
	max_file_attributes	2				
	max_files	31				
	max_input_fields	300				
	max_num_axis_sets max_out_per_in_field	25 150				
	max_output_fields	300				
	mix_snapshot_average_fields	False				
	oor_warnings_fatal	False				
	prepend_date	True				
	prepend_date region_out_use_alt_value use_cmor write_bytes_in_file	True True False False				
&fms_io_nml	prepend_date region_out_use_alt_value use_cmor write_bytes_in_file checksum_required	True True False False True				
&fms_io_nml	prepend_date region_out_use_alt_value use_cmor write_bytes_in_file checksum_required debug_mask_list	True True False False True False				
&fms_io_nml	prepend_date region_out_use_alt_value use_cmor write_bytes_in_file checksum_required debug_mask_list dr_set_size	True True False False True False 10	'sinale'	'sinale'	'multi'	'multi'
&fms_io_nml	prepend_date region_out_use_alt_value use_cmor write_bytes_in_file checksum_required debug_mask_list	True True False False True False	'single'	'single'	'multi'	'multi
&fms_io_nml	prepend_date region_out_use_alt_value use_cmor write_bytes_in_file checksum_required debug_mask_list dr_set_size fileset_write fms_netcdf_override fms_netcdf_restart	True True False False True False 10 'single' True True	'single'	'single'	'multi'	'multi
&fms_io_nml	prepend_date region_out_use_alt_value use_cmor write_bytes_in_file checksum_required debug_mask_list dr_set_size fileset_write fms_netcdf_override fms_netcdf_restart format	True True False False True False 10 'single' True True 'netcdf'	'single'	'single'	'multi'	'multi
&fms_io_nml	prepend_date region_out_use_alt_value use_cmor write_bytes_in_file checksum_required debug_mask_list dr_set_size fileset_write fms_netcdf_override fms_netcdf_restart	True True False False True False 10 'single' True True 'netcdf' ;','N',	'single'	'single'	'multi'	'multi'
&fms_io_nml	prepend_date region_out_use_alt_value use_cmor write_bytes_in_file checksum_required debug_mask_list dr_set_size fileset_write fms_netcdf_override fms_netcdf_restart format	True True False False True False 10 'single' True True 'netcdf' ';'N', 'ieee_32'	'single'	'single'	'multi'	'multi'
&fms_io_nml	prepend_date region_out_use_alt_value	True True False False True False 10 'single' True True 'netcdf' ;','N',	'single'	'single'	'multi'	'multi'

Group (continued)	Variable	original/ kiss_acces- som2 025deg jra55_ryf log-	original/ russ- accessom- mom4p1- input.nml	new_acces- som2 1deg jra55_ryf input.nml	new_acces- som2 025deg jra55_ryf input.nml	new_acces- som2 01deg jra55_ryf input.nml
	read_all_pe	file.000000.o	ut			
	read_data_bug	False				
	show_open_namelist_file_warning	False				
	threading_read	'multi'	'multi'	'multi'	'multi'	'multi'
	threading_write	'single'	'single'	'single'	'multi'	'multi'
&fms_nml	time_stamp_restart clock_flags	True 'NONE'				
WIIII2 JIIIIL	clock_grain	'LOOP'	'LOOP'	'LOOP'	'LOOP'	'LOOP'
	domains_stack_size	0	200.	115200	115200	115200
	iospec_ieee32	, 'N',				
		'ieee_32'				
	print_memory_usage	False True				
	read_all_pe stack_size	0				
	warning_level	'warning'				
&get_cal_time_nml	allow_calendar_conversion	True				
&horiz_interp_nml	reproduce_siena	False				
&mom_oasis3_interface_nml	fields_in	'u_flux',	'u_flux',	'u_flux',	'u_flux',	'u_flux',
		'v_flux',	'v_flux',	'v_flux',	'v_flux',	'v_flux',
		'lprec', 'fprec', 'salt_flx',	'lprec', 'fprec', 'salt_flx',	'lprec', 'fprec', 'salt_flx',	'lprec', 'fprec', 'salt_flx',	'lprec', 'fprec', 'salt_flx',
		'mh_flux',	'mh_flux',	'mh_flux',	'mh_flux',	`mh_flux',
		'sw_flux',	'sw_flux',	'sw_flux',	'sw_flux',	'sw_flux',
		'q_flux',	'q_flux',	'q_flux',	'q_flux',	'q_flux',
		't_flux',	't_flux',	't_flux',	't_flux',	't_flux',
		'lw_flux',	'lw_flux',	'lw_flux',	'lw_flux',	'lw_flux',
		'runof', 'p',	'runof', 'p',	'runof', 'p',	'runof', 'p',	runof', 'p',
		'aice', 'wfimelt',	'aice', 'wfimelt',	'aice', 'wfimelt',	'aice', 'wfimelt',	'aice', 'wfimelt',
		williett,	williett,	williett,	williett,	wiifiett,
	fields_out	't_surf',	't_surf',	't_surf',	't_surf',	't_surf',
		's_surf',	's_surf',	's_surf',	's_surf',	's_surf',
		'u_surf',	'u_surf',	'u_surf',	'u_surf',	'u_surf',
		'v_surf',	'v_surf',	'v_surf',	'v_surf',	'v_surf',
		'dssldx',	'dssldx',	'dssldx',	'dssldx',	'dssldx',
		'dssldy', 'frazil'	'dssldy', 'frazil'	'dssldy', 'frazil'	'dssldy', 'frazil'	'dssldy', 'frazil'
	num_fields_in	15	15	15	15	15
	num_fields_out	7	7	7	7	7
	send_after_ocean_update	True	True	True	True	True
	send_before_ocean_update	False	False	False	False	False
&monin_obukhov_nml	neutral			True	True	True
&mpp_io_nml	deflate_level	-1 True		5	5	5
	global_field_on_root_pe header_buffer_val	True 16384				
	io_clocks_on	False				
	shuffle	0		1	1	1
&ocean_adv_vel_diag_nml	diag_step	4320	120	4320	4320	576
-	large_cfl_value	10.0	10.0	10.0	10.0	10.0
	max_cfl_value	100.0	100.0	100.0	100.0	100.0
	verbose_cfl	True	False	True	True	True
&ocean_advection_velocity_nml	constant_advection_velocity debug_this_module	False				
	inflow_nboundary	False False				
	max_advection_velocity	0.5	0.5	0.5	0.5	0.5
	read_advection_transport	False				
	read_advection_velocity	False				
&ocean_albedo_nml	ocean_albedo_option		-	2	2	2
&ocean_barotropic_nml	alphat	0.948				
	barotropic_halo	10	False	10	10	10
	barotropic_leap_frog barotropic_pred_corr		Faise True			
	barotropic_pred_con barotropic_time_stepping_a	True	nuc	True	True	True
	barotropic_time_stepping_b	False		False	False	False
	barotropic_time_stepping_mom4p0		True			
	barotropic_time_stepping_mom4p1		False			
	debug_this_module	False	False	False	False	False
	diag_step	4320	120	4320	4320	576
	do_bitwise_exact_sum eta_max	False 8.0	8.0	8.0	8.0	8.0
	eta_inax eta_offset	1×10^{-12}	0.0	0.0	0.0	0.0
	frac_crit_cell_height	0.2	0.2	0.2	0.2	0.2
	nuc_cnc_cnc_nright	0.2	0.2	0.2	0.2	0.2

Stock among 3.0 members 1.0 me	Group (continued)	Variable	original/ kiss_acces- som2 025deg jra55_ryf log-	original/ russ- accessom- mom4p1- input.nml	new_acces- som2 1deg jra55_ryf input.nml	new_acces- som2 025deg jra55_ryf input.nml	new_acces- som2 01deg jra55_ryf input.nml
Section Institute of the section o							
ideal intole are amplitude internal months are amplitude internal months are received internal months a							
Michael Ambier et ay sevent 100 000.0		ideal_initial_eta_amplitude	5.0				
Second Miles Sec							
Process			True				
Stock among 3.0 members 1.0 me		· · · · · · · · · · · · · · · · · · ·					
Second Horizont in Bolizons False Second Horizont False Fals				0.2	0.2	0.2	0.2
smooth Left Lithiummonit smooth Lithiummonit smooth Left Lithiummonit smooth Lithiummonit s		smooth_eta_diag_biharmonic	False				
### STATE OF THE PARTY OF THE P							True
				Irue	False	False	False
### STATE Part Part							True
Second Palor Lagration True False True Tr				True	False	False	False
Italia Torring Seal Italia Seal Itali				False	True	True	True
Middle False Fal				raise	nac	nuc	iiuc
Truncate_rate False Galfon_Bin_Bin_Bin_Bin_Bin_Bin_Bin_Bin_Bin_Bi							
March Dally False				Falso	Falco	Ealco	Ealco
Barrier Barr				False	raise	raise	False
March Marc							
Barrier Barr							
Uniform Department Depart							
USB Legacy, Damfortopic halos False Fa							
Vel. micom. lap. diag 0.1 Vel. micom. lap. diag 0.2 0.					False	False	False
vel.micom.lap				0.01	0.01	0.01	0.01
Vel.micon.lap.diag 0.2 0				0.05	0.05	0.05	0.05
Verbosc.truicate Tiue Ti							0.03
Winte a restart True Palse Pal			True				
Reference Refe				True	True	True	True
Reference False							
Ref							
Resolution False Part False Part		zero_eta_t	False				
Palse Pals							
Second S							
Description			False	False	False	False	False
Cdbot gamma 400 0.001	&ocean_bbc_nml				True	True	True
Composition				0.001	0.001	0.001	0.001
Cabbot his clabs of the class				0.001	0.001	0.001	0.001
Cdbot_law_of_wall False False Cdbot_low_of_wall Cdbot_low_of_wall Cdbot_low_of_wall False Cdbot_wave False		cdbot_hh	1100.0				
cdbot_lo 0,001 cdbot_roughness_length False False False False cdbot_roughness_length True				F-1	0.007	0.007	0.007
Cdbot_roughness_length False False False False False False Cdbot_roughness_length Cdbot_roughness_length Cdbot_uu 1.0 Cdbot_uu 1.0 Cdbot_uu 1.0 Cdbot_uu 1.0 Cdbot_uu False Convert_geothermal 0.001 Cdbot_uese False Convert_geothermal 0.001 Cdbot_uese_geothermal_heating False Fal				False			
Cdbot .uu					False	False	False
cdbot_wave convert_geothermal debug_this_module debug_this_module law_of_wall_rough_length uresidual uvmag_max False law_of_wall_rough_length uresidual loos law_of_wall_rough_length length uresidual law_of_wall_rough_length length uresidual law_of_wall_rough_length length length uresidual law_of_wall_rough_length length					True	True	True
convert_geothermal debug_this_module law_of_wall_rough_length uresidual use_geothermal_heating uvmag_max 0.001 & ocean_bbc_ofam_nml read_tide_speed uresidual2_max False peneral False peneral <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td>							
debug_this_module False							
uresidual use_geothermal_heating use_geothermal_heating uvmag_max False ped uvmag_max False ped urmag_max False umag_max False ped urmag_max False umag_max False ped urmag_max False umag_max False ped umag_max False		debug_this_module	False				
use_geothermal_heating uvmag_max False palse palse False palse palse False palse palse False palse palse &ocean_bbc_ofam_nml read_tide_speed uresidual2_max False palse palse palse False palse palse False palse palse &ocean_bih_friction_nml bih_friction_scheme debug_this_module write_a_restart 'general'					225	0.05	0.0-
uvmag_max 10.0 & ocean_bbc_ofam_nml read_tide_speed uresidual2_max False uresidual2_max & ocean_bih_friction_nml bih_friction_scheme debug_this_module write_a_restart 'general' '				Falsa			0.05 False
&ocean_bbc_ofam_nml read_tide_speed uresidual2_max False uresidual2_max False 0.05 1.0 &ocean_bih_friction_nml bih_friction_scheme debug_this_module write_a_restart 'general' 'general				1 0125	ו מנטכ	1 0135	raise
&ocean_bih_friction_nml bih_friction_scheme debug_this_module write_a_restart 'general'	&ocean_bbc_ofam_nml		False				
debug_this_module write_a_restart False write_a_restart &ocean_bih_tracer_nml abih horz_s_diffuse fue					1 22	,	
write_a_restart True &ocean_bih_tracer_nml abih horz_s_diffuse 0.0 frue True	&ocean_bih_friction_nml			'general'	'general'	'general'	'general
&ocean_bih_tracer_nml							
	&ocean_bih_tracer_nml	abih	0.0				
horz z.diffuse False							

Group (continued)	Variable	original/ kiss_acces- som2 025deg jra55_ryf log-	original/ russ- accessom- mom4p1- input.nml	new_acces- som2 1deg jra55_ryf input.nml	new_acces- som2 025deg jra55_ryf input.nml	new_acces- som2 01deg jra55_ryf input.nml
	read_diffusivity_mask	file.000000.out	•			
	tracer_mix_micom	True				
	use_this_module	False	False	False	False	False
&ocean_bihcst_friction_nml	vel_micom use_this_module	0.001	False	False	False	False
&ocean_bihgen_friction_nml	bottom_5point	False	True	False	False	False
3	debug_this_module	False				
	eq_lat_micom	0.0	0.0	0.0	0.0	0.0
	eq_vel_micom_aniso eq_vel_micom_iso	0.0 0.0	0.0 0.0	0.0 0.0	0.0 0.0	0.0 0.0
	equatorial_zonal	False	False	False	False	False
	equatorial_zonal_lat	0.0				
	k_smag_aniso k_smag_iso	0.0 2.0	0.0 2.0	0.0 2.0	0.0 2.0	0.0 2.0
	ncar_boundary_scaling	True	True	True	True	True
	ncar_boundary_scaling_read	True		True	True	True
	ncar_rescale_power	2	2	2	2	2
	ncar_vconst_4 ncar_vconst_5	$\begin{array}{c} 2\times10^{-8} \\ 5 \end{array}$	$2 imes 10^{-8}$	2×10^{-8}	$2 imes 10^{-8}$	2×10^{-8} 5
	ncar_vconst_5 neptune	5 False))))
	neptune_depth_min	100.0				
	neptune_length_eq	4200.0				
	neptune_length_pole neptune_scaling	17 000.0 1.0				
	neptune_smooth	True				
	neptune_smooth_num	1				
	read_aiso_bih_back	False				
	side_drag_friction_max side_drag_friction_scaling	1.0 1.0				
	side_drag_friction_uvmag_max	10.0				
	use_side_drag_friction	False				
	use_this_module	True 0.0	True 0.0	True 0.0	True 0.0	True
	vel_micom_aniso vel_micom_bottom	0.0	0.01	0.0	0.0	0.0 0.0
	vel_micom_iso	0.0	0.04	0.0	0.0	0.0
	visc_crit_scale	1.0	0.25	1.0	1.0	1.0
&ocean_blob_nml	visc_diverge_scaling bitwise_reproduction	0.0 False				
&ocean_btob_nint	blob_small_mass	1000.0				
	debug_this_module	False				
	do_bitwise_exact_sum	False				
	max_prop_thickness really_debug	0.7 False				
&ocean_convect_nml	convect_full_scalar	True	False			
	convect_full_vector	False	True			
	convect_ncon ncon	False 7				
	use_this_module	False	False	False	False	False
&ocean_coriolis_nml	acor	0.5	0.5	0.5	0.5	0.5
	debug_this_module	False	-	-	-	-
&ocean_density_nml	use_this_module alpha_linear_eos	True 0.255	True	True	True	True
&ocean_density_nint	beta_linear_eos	0.2				
	buoyfreq_smooth_vert	True				
	debug_this_module	False				
	density_equal_potrho do_bitwise_exact_sum	False False				
	drhodz_diag_stable	True				
	eos_linear	False		False	False	False
	eos_preteos10	True		True	True	True
	eos_teos10 epsln_drhodz	False $1 imes 10^{-10}$				
	epstn_drhodz_diag	1×10 1×10^{-10}				
	grad_nrho_lrpotrho_compute	False				
	grad_nrho_lrpotrho_max	10.0				
	grad_nrho_lrpotrho_min layer_nk	1.0 80	80	80	80	80
	linear_eos	00	False	00	00	00
	mask_domain_restart	False				
	neutral_density_omega	False				
	neutral_density_potrho neutralrho_max	True 1038.0	1030.0	1038.0	1038.0	1038.0
	neddatho_flax	1030.0	1030.0	10,000	1030.0	10,000

Group (continued)	Variable	original/ kiss_acces- som2 025deg jra55_ryf log-	original/ russ- accessom- mom4p1- input.nml	new_acces- som2 1deg jra55_ryf input.nml	new_acces- som2 025deg jra55_ryf input.nml	new_acces- som2 01deg jra55_ryf input.nml
	neutralrho_min	file.000000.out 1028.0	1020.0	1028.0	1028.0	1028.0
	num_121_passes	1028.0	1020.0	1028.0	1028.0	1028.0
	p_test	1000.0				
	potrho_max	1038.0	1038.0	1038.0	1038.0	1038.0
	potrho_min	1028.0	1028.0	1028.0	1028.0	1028.0
	potrho_press press_standard	2000.0 0.0				
	rho0_density	False				
	s_test	20.0				
	smax_diag	-1.0				
	smax_min_in_column	False				
	smooth_stratification_factor sn_test	False 35.0				
	t_test	20.0				
	teos10_eos	2010	False			
	theta_max	30.0				
	theta_min	-2.0				
	tn_test	20.0				
	update_diagnostic_factors write_a_restart	False True				
&ocean_domains_nml	halo	1				
	max_tracers	5	20	5	5	5
	x_cyclic_offset	0				
0 1:6	y_cyclic_offset	0				
&ocean_drifters_nml	output_interval use_this_module	1 False				
&ocean_form_drag_nml	agm_form_drag	600.0				
accuration and a minimum and a	cprime_aiki	0.3	0.6			
	debug_this_module	False				
	form_drag_aiki_bottom_klevels	3				
	form_drag_aiki_bottom_layer	False				
	form_drag_aiki_gradh_max form_drag_aiki_gradh_power	0.05 1.0				
	form_drag_aiki_scale_by_gm	False				
	form_drag_aiki_scale_by_gradh	False				
	form_drag_gbatch_alpha	300 000 000.0				
	form_drag_gbatch_alpha_f2	False				
	form_drag_gbatch_f2overn2 form_drag_gbatch_f2overnb2	False False				
	form_drag_gbatch_f2overno2	False				
	form_drag_gbatch_no	0.005				
	form_drag_gbatch_smooth_n2	False				
	form_drag_gbatch_surf_layer	False				
	ksurf_blayer_min	1×10^{-10}				
	n_squared_min num_121_passes	1 × 10 1				
	use_form_drag_aiki	False				
	use_form_drag_gbatch	False				
	use_this_module	False	False	False	False	False
	vel_form_drag_max	1.0				
	verbose_init visc_cbu_form_drag_max	True 1.0				
&ocean_frazil_nml	air_saturated_water	True				
	debug_this_module	False		False	False	False
	frazil_factor	1.0				
	frazil_only_in_surface	False	False	False	False	False
	freezing_temp_accurate freezing_temp_preteos10	True	True	True	True	True
	freezing_temp_preteos10	False	False	False	False	False
	freezing_temp_teos10	False				. 2.35
		True	True	True	True	True
	use_this_module		True	False	False	False
&ocean_grids_nml	debug_this_module	False	nuc			
&ocean_grids_nml	debug_this_module do_bitwise_exact_sum	False				
&ocean_grids_nml	debug_this_module do_bitwise_exact_sum read_rho0_profile	False False	False			
&ocean_grids_nml	debug_this_module do_bitwise_exact_sum	False				
&ocean_grids_nml &ocean_increment_eta_nml	debug_this_module do_bitwise_exact_sum read_rho0_profile verbose_init write_grid days_to_increment	False False True False 1	False 0			
	debug_this_module do_bitwise_exact_sum read_rho0_profile verbose_init write_grid days_to_increment fraction_increment	False False True False 1 1.0	False 0 1.0			
	debug_this_module do_bitwise_exact_sum read_rho0_profile verbose_init write_grid days_to_increment fraction_increment secs_to_increment	False False True False 1 1.0 0	False 0 1.0 3600			Fal
	debug_this_module do_bitwise_exact_sum read_rho0_profile verbose_init write_grid days_to_increment fraction_increment	False False True False 1 1.0	False 0 1.0	False	False	False

Group (continued)	Variable	original/ kiss_acces- som2 025deg jra55_ryf log- file.000000.ou	original/ russ- accessom- mom4p1- input.nml	new_acces- som2 1deg jra55_ryf input.nml	new_acces- som2 025deg jra55_ryf input.nml	new_acces- som2 01deg jra55_ryf input.nml
	secs_to_increment	0	3600			
Paccan increment velocity pml	use_this_module	False	False 0	False	False	False
&ocean_increment_velocity_nml	days_to_increment fraction_increment	1 1.0	1.0			
	secs_to_increment	0	3600			
9 according frigition and	use_this_module	False	False	False	False	False
&ocean_lap_friction_nml	debug_this_module lap_friction_scheme	False 'general'	'general'	'general'	'general'	'general'
	write_a_restart	True	J	3	3	3
&ocean_lap_tracer_nml	alap horz_s_diffuse	0.0 True				
	horz_z_diffuse	False				
	read_diffusivity_mask	False				
	tracer_mix_micom use_this_module	False False	False	False	False	False
	vel_micom	0.0	raise	raise	raise	raise
	verbose_init	True				
&ocean_lapcst_friction_nml	use_this_module	Г-1	False	False	False	False
&ocean_lapgen_friction_nml	async_domain_update blocksize	False 10				
	bottom_5point	False	True	True		
	debug_ncar_a	False				
	debug_ncar_b debug_this_module	False False				
	divergence_damp	False				
	divergence_damp_vel_micom	0.0				
	eq_lat_micom eq_vel_micom_aniso	0.0 0.0				
	eq_vel_micom_iso	0.0				
	equatorial_no_smag	False				
	equatorial_zonal equatorial_zonal_lat	False 0.0				
	k_smag_aniso	0.0	0.0	0.0		
	k_smag_iso ncar_isotropic_at_depth	2.0 False	0.0	0.0		
	ncar_isotropic_at_depth_visc	10 000.0				
	ncar_isotropic_depth	4000.0				
	ncar_isotropic_off_equator ncar_only_equatorial	False False	True	True		
	neptune	False	iiuc	nuc		
	neptune_depth_min	100.0				
	neptune_length_eq neptune_length_pole	1200.0 3000.0				
	neptune_smooth	True				
	neptune_smooth_num	1 Falsa	Terra	Tuus		
	restrict_polar_visc restrict_polar_visc_lat	False 60.0	True 60.0	True 60.0		
	restrict_polar_visc_ratio	0.35	0.35	0.35		
	side_drag_friction_max side_drag_friction_scaling	1.0 1.0				
	side_drag_friction_scaling side_drag_friction_uvmag_max	1.0				
	use_side_drag_friction	False	_	_	_	_
	use_this_module vconst_1	False 10 000 000.0	True 8 000 000.0	True 8 000 000.0	False	False
	vconst_2	0.0	0.00	0.0		
	vconst_3	0.16	0.8	0.8		
	vconst_4 vconst_5	2×10^{-8}	$\begin{array}{c} 5\times10^{-9} \\ \end{array}$	5×10^{-9}		
	vconst_6	10 000 000.0	300 000 000.0	300 000 000.0		
	vconst_7	100.0	100.0	100.0		
	vconst_8 vel_micom_aniso	45.0 0.0				
	vel_micom_iso	0.0	0.1	0.1		
	visc_vel_scale_length	150 000.0 False	Ealco	True		
	viscosity_ncar viscosity_ncar_2000	False True	False False	False		
	viscosity_ncar_2007	False	True	True		
	viscosity_scale_by_rossby viscosity_scale_by_rossby_power	False 2.0	True 4.0	True 100.0		
&ocean_mixdownslope_nml	debug_this_module	False	False	False		
	do_bitwise_exact_sum	False				
	mixdownslope_frac_central	0.25				

Group (continued)	Variable	original/ kiss_acces- som2 025deg jra55_ryf log-	original/ russ- accessom- mom4p1- input.nml	new_acces- som2 1deg jra55_ryf input.nml	new_acces- som2 025deg jra55_ryf input.nml	new_acces- som2 01deg jra55_ryf input.nml
	windowski sedu sedu sedu	file.000000.ou		Falsa		
	mixdownslope_mask_gfdl mixdownslope_npts	False 1	False 4	False 4		
	mixdownslope_weight_far	False	7	т		
	mixdownslope_width	1				
	read_mixdownslope_mask	False	False	False		
0	use_this_module	False	True	True	False	False
&ocean_model_nml	baroclinic_split barotropic_split	1 80	1 80	1 80	1 80	1 80
	cmip_units	True	True	True	True	True
	debug	False	False	False	False	False
	dt_ocean	1800	3600	3600	1200	150
	horizontal_grid	'bgrid'				
	impose_init_from_restart io_layout	False 6, 5		4, 3	6,5	10, 15
	layout	48,40	12, 10	16, 15	48, 40	80, 75
	mask_table	'INPUT'	12,10	10, 15	.0, .0	00,75
	reinitialize_thickness	False				
	surface_height_split	1	. 1	1	1	
	time_tendency use_blobs	'twolevel' False	'twolevel'	'twolevel'	'twolevel'	'twolevel
	use_velocity_override	False				
	vertical_coordinate	'zstar'	'zstar'	'zstar'	'zstar'	'zstar
kocean_momentum_source_nml	debug_this_module	False				
&ocean_nphysics_new_nml	rayleigh_damp_exp_from_bottom	False		False	False	False
	rayleigh_damp_exp_scale	100.0				
	<mark>rayleigh_damp_exp_time</mark> use_rayleigh_damp_table	864 000.0	True	True	True	True
	use_tayteign_damp_table use_this_module	True True	True	True	True	True
	verbose_init	True	nuc	nac	nac	ii de
	drhodz_smooth_horz	False				
	drhodz_smooth_vert	False				
	smax	0.01				
	use_this_module vel_micom_smooth	False 0.2				
&ocean_nphysics_nml	debug_this_module	False	False	False	False	False
, , , , , , , , , , , , , , , , , , ,	use_nphysicsa	False	False	False	False	False
	use_nphysicsb	False	False	False	False	False
	use_nphysicsc	False	True	True	False	False
	use_this_module write_a_restart	False True	True	True	False	False
&ocean_nphysics_util_new_nml	num_121_passes	1				
Rocean_nphysics_util_nml	agm		600.0	600.0	100.0	100.0
	agm_closure		True	True	True	True
	agm_closure_baroclinic		True	True	True	True
	agm_closure_buoy_freq agm_closure_eady_ave_mixed		0.004 True	0.004 True	0.004	0.004
	agm_closure_eady_cap		True	True		
	agm_closure_eady_smooth_horz		True	True		
	agm_closure_eady_smooth_vert		True	True		
	agm_closure_eden_gamma		0.0	0.0		
	agm_closure_eden_greatbatch		False	False		
	agm_closure_grid_scaling agm_closure_length		True 50 000.0	True 50 000.0	50 000.0	50 000.0
	agm_closure_length_bczone		False	False	False	False
	agm_closure_length_fixed		False	False	False	False
	agm_closure_length_rossby		False	False	False	False
	agm_closure_lower_depth		2000.0	2000.0	2000.0	2000.0
	agm_closure_max		600.0 50.0	600.0 50.0	600.0 100.0	600.0 100.0
	agm_closure_min agm_closure_scaling		0.07	0.07	0.07	0.0
	agm_closure_upper_depth		100.0	100.0	100.0	100.0
	agm_damping_time		45.0	45.0		
	agm_smooth_space		False	False		
	agm_smooth_time		False	False	(00.0	
	aredi		600.0 False	600.0 False	600.0 False	600.0 False
	aredi_equal_agm drhodz_mom4p1		False True	False True	False False	False False
	drhodz_mont4p1 drhodz_smooth_horz		False	False	False	False
	drhodz_smooth_vert		False	False	False	False
	nphysics_util_zero_init		True	True		
	rossby_radius_max		100 000.0	100 000.0	100 000.0	100 000.0
	rossby_radius_min		15 000.0	15 000.0	15 000.0	15 000.0

Group (continued)	Variable	original/ kiss_acces- som2 025deg jra55_ryf log- file.000000.ou	original/ russ- accessom- mom4p1- input.nml	new_acces- som2 1deg jra55_ryf input.nml	new_acces- som2 025deg jra55_ryf input.nml	new_acces- som2 01deg jra55_ryf input.nml
	tracer_mix_micom	iile.000000.ou	False	False	False	False
	vel_micom		0.0	0.0	0.0	0.0
&ocean_nphysicsa_nml	use_this_module		False	False	False	False
&ocean_nphysicsb_nml	use_this_module		False	False	False	False
&ocean_nphysicsc_nml	bv_freq_smooth_vert bvp_bc_mode		True 2	True 2		
	bvp_min_speed		0.1	0.1		
	bvp_speed		0.0	0.0		
	debug_this_module		False	False		
	do_gm_skewsion		True	True		
	do_neutral_diffusion		True $1 imes 10^{-12}$	True $1 imes 10^{-12}$		
	epsln_bv_freq gm_skewsion_bvproblem		1 × 10 True	True		
	gm_skewsion_modes		False	False		
	neutral_eddy_depth		True	True		
	neutral_physics_limit		True	True		
	number_bc_modes		2	2		
	regularize_psi		False 0.01	False 0.01		
	smax_psi smooth_psi		True	True		
	tmask_neutral_on		True	True		
	turb_blayer_min		50.0	50.0		
	use_this_module		True	True	False	False
&ocean_obc_nml	ctrop_inc	0.0, 0.0, 0.0,				
	ctrop_max	0.0 1.5, 1.5, 1.5,				
	ctrop_max	1.5, 1.5, 1.5,				
	ctrop_min	0.1, 0.1, 0.1,				
		0.1				
	ctrop_smooth	0.7, 0.7, 0.7,				
	direction	0.7 None				
	enh_fac_d	1.0, 1.0, 1.0,				
		1.0				
	enh_fac_v	0.9, 0.9, 0.9,				
		0.9				
	enh_pnts fieldname_eta	1, 1, 1, 1 'eta_t', 'none',				
	nctuname_cta	'none', 'none'				
	fieldname_ud	'ud', 'none',				
		'none', 'none'				
	filename_eta	'obc_eta_t',				
		'.nc', 'none',				
	filename_tracer	'none', 'none' 'INPUT'				
	filename_ud	'obc_ud', '.nc',				
		'none', 'none',				
	_	'none'				
	ie	-999, -999,				
	iere	-999, -999 -999, -999,				
	icic	-999, -999				
	iers	-999, -999,				
		-999, -999				
	is	-999, -999,				
	itro	-999, -999 -999, -999,				
	itre	-999, -999, -999, -999				
	itrs					
		-999, -999, -999, -999				
	itrs je	-999, -999, -999, -999 -999, -999,				
	je	-999, -999, -999, -999 -999, -999, -999, -999				
		-999, -999, -999, -999 -999, -999, -999, -999				
	j <u>e</u> jere	-999, -999, -999, -999 -999, -999, -999, -999, -999, -999,				
	je	-999, -999, -999, -999 -999, -999, -999, -999				
	j <u>e</u> jere	-999, -999, -999, -999, -999, -999, -999, -999, -999, -999, -999, -999, -999, -999,				
	je jere jers js	-999, -999, -999, -999, -999, -999, -999, -999, -999, -999, -999, -999, -999, -999, -999, -999,				
	je jere jers	-999, -999, -999, -999, -999, -999, -999, -999, -999, -999, -999, -999, -999, -999, -999, -999, -999, -999,				
	je jere jers js	-999, -999, -999, -999, -999, -999, -999, -999, -999, -999, -999, -999, -999, -999, -999, -999,				

Group (continued) Variable	original/	original/	new_acces-	new_acces-	new_acces-
variable	original/ kiss_acces-	original/ russ-	new_acces- som2	new_acces- som2	new_acces- som2
	som2	accessom-	1deg	025deg	01deg
	025deg	mom4p1-	jra55_ryf	jra55_ryf	jra55_ryf
	jra55_ryf	input.nml	input.nml	input.nml	input.nml
	log- file.000000.out				
name	'test_obc',				
	'none', 'none',				
	'none'				
nobc	0				
obc_adjust_forcing_bt	False, False,				
obc_consider_convu	False, False False, False,				
OUC_COTISION _COTIVO	False, False				
obc_consider_sources	False, False,				
	False, False,				
	False, False,				
	False, False,				
	False, False,				
	False, False, False, False,				
	False, False,				
	False, False,				
	False, False,				
	False, False,				
	False, False,				
	False, False,				
	False, False, False, False,				
	False, False,				
	False, False,				
	False, False,				
	False, False,				
obc_enhance_diff_back	False, False 'NONE',				
OUC_EIIIdite_uii_Dack	NONE,				
	'NONE',				
	'NONE'				
obc_enhance_visc_back	'NONE',				
	'NONE',				
	'NONE',				
obc_eta	'NONE' 'NOTHIN',				
OUC_eta	'NOTHIN',				
	'NOTHIN',				
	'NOTHIN'				
obc_flow_relax	1, 1, 1, 1, 1,				
	1, 1, 1, 1, 1,				
	1, 1, 1, 1, 1,				
	1, 1, 1, 1, 1, 1, 1, 1, 1, 1,				
	1, 1, 1, 1, 1, 1, 1, 1, 1, 1, 1, 1, 1, 1				
	1, 1, 1, 1, 1,				
	1, 1, 1, 1, 1				
obc_mix	'NOGRAD',				
	'NOGRAD',				
	'NOGRAD',				
abo nor	'NOGRAD' 'NOGRAD'				
obc_nor	'NOGRAD',				
obc_nor					

Group (continued)	Variable	original/	original/	new_acces-	new_acces-	new_acces-
Group (continued)	variable	kiss_acces-	russ-	som2	som2	som2
		som2	accessom-	1deg	025deg	01deg
		025deg	mom4p1-	jra55_ryf	jra55_ryf	jra55_ryf
		jra55_ryf	input.nml	input.nml	input.nml	input.nml
		log-				
	ohe rolay tracer	file.000000.out				
	obc_relax_tracer	False, False, False, False,				
		False, False,				
		False, False,				
		False, False,				
		False, False,				
		False, False,				
		False, False,				
		False, False,				
		False, False,				
		False, False,				
		False, False,				
		False, False,				
		False, False,				
		False, False,				
		False, False,				
		False, False, False, False,				
		False, False,				
		False, False, False, False				
	obc_tan	'NOGRAD',				
	ODC_tail	'NOGRAD',				
		'NOGRAD',				
		'NOGRAD'				
	obc_tra	'NOGRAD',				
		'NOGRAD',				
		'NOGRAD',				
		'NOGRAD',				
		'NOGRAD',				
		'NOGRAD',				
		'NOGRAD',				
		'NOGRAD',				
		'NOGRAD',				
		'NOGRAD',				
		'NOGRAD', 'NOGRAD',				
		'NOGRAD',				
		'NOGRAD',				
		'NOGRAD',				
		'NOGRAD',				
		'NOGRAD',				
		'NOGRAD',				
		'NOGRAD',				
		'NOGRAD',				
		'NOGRAD',				
		'NOGRAD',				
		'NOGRAD',				
		'NOGRAD',				
		'NOGRAD', 'NOGRAD',				
		'NOGRAD',				
		NOGRAD, 'NOGRAD',				
		'NOGRAD',				
		'NOGRAD',				
		'NOGRAD',				
		'NOGRAD',				
		'NOGRAD',				
		'NOGRAD',				
		'NOGRAD',				
		'NOGRAD',				
		'NOGRAD',				
		'NOGRAD',				
		'NOGRAD',				
		'NOGRAD'				

Group (continued)	Variable	original/	original/	new_acces-	new_acces-	new_acces-
		kiss_acces-	russ-	som2	som2	som2
		som2 025deg	accessom- mom4p1-	1deg jra55_ryf	025deg jra55_ryf	01deg jra55_ryf
		jra55_ryf	input.nml	input.nml	input.nml	input.nml
		log- file.000000.out				
	obc_tracer_no_inflow	False, False,				
		False, False,				
		False, False, False, False,				
		False, False,				
		False, False,				
		False, False,				
		False, False,				
		False, False, False, False,				
		False, False,				
		False, False,				
		False, False,				
		False, False,				
		False, False, False, False,				
		False, False,				
		False, False,				
		False, False,				
		False, False				
	obc_ud	'NOGRAD',				
		'NOGRAD', 'NOGRAD',				
		'NOGRAD'				
	obc_vert_advel_t	False, False,				
		False, False				
	obc_vert_advel_u	False, False,				
	rel_clin_pnts	False, False 1, 1, 1, 1, 1,				
	ret_ctin_pnts	1, 1, 1, 1, 1, 1, 1, 1, 1, 1, 1, 1, 1, 1				
		1, 1, 1, 1, 1,				
		1, 1, 1, 1, 1,				
		1, 1, 1, 1, 1,				
		1, 1, 1, 1, 1,				
		1, 1, 1, 1, 1, 1, 1, 1, 1, 1				
	rel_coef_eta_in	0.0, 0.0, 0.0,				
		0.0				
	rel_coef_eta_out	0.0, 0.0, 0.0, 0.0				
	rel_coef_tracer_in	0.0, 0.0, 0.0,				
		0.0, 0.0, 0.0,				
		0.0, 0.0, 0.0,				
		0.0, 0.0, 0.0, 0.0, 0.0, 0.0,				
		0.0, 0.0, 0.0,				
		0.0, 0.0, 0.0,				
		0.0, 0.0, 0.0,				
		0.0, 0.0, 0.0,				
		0.0, 0.0, 0.0,				
		0.0, 0.0, 0.0, 0.0, 0.0, 0.0,				
		0.0, 0.0, 0.0,				
		0.0				
	rel_coef_tracer_out	0.0, 0.0, 0.0,				
		0.0, 0.0, 0.0,				
		0.0, 0.0, 0.0, 0.0, 0.0, 0.0,				
		0.0, 0.0, 0.0,				
		0.0, 0.0, 0.0,				
		0.0, 0.0, 0.0,				
		0.0, 0.0, 0.0,				
		0.0, 0.0, 0.0,				
		0.0, 0.0, 0.0,				
		0.0, 0.0, 0.0,				
		()() ()() ()()				
		0.0, 0.0, 0.0, 0.0, 0.0, 0.0.				
		0.0, 0.0, 0.0, 0.0, 0.0, 0.0, 0.0				
	rel_eta_pnts	0.0, 0.0, 0.0, 0.0 1, 1, 1, 1				
&ocean_operators_nml	use_legacy_div_ud	0.0, 0.0, 0.0, 0.0 1, 1, 1, 1 False		False	False	
&ocean_operators_nml &ocean_overexchange_nml		0.0, 0.0, 0.0, 0.0 1, 1, 1, 1	False	False False	False False	False False

Group (continued)	Variable	original/ kiss_acces- som2 025deg jra55_ryf log-	original/ russ- accessom- mom4p1- input.nml	new_acces- som2 1deg jra55_ryf input.nml	new_acces- som2 025deg jra55_ryf input.nml	new_acces- som2 01deg jra55_ryf input.nml
		file.000000.ou	t			
	overexch_min_thickness	4.0	4	4	4	4
	overexch_npts overexch_stability	4 0.25	4	4	4	4
	overexch_weight_far	False	False	False	False	False
	overexch_width	1				
	overflow_delta	0.3333				
	overflow_mu	0.0001	Γ0	F.O.	F.O.	Γ.0.
	overflow_umax use_this_module	5.0 False	5.0 False	5.0 False	5.0 False	5.0 False
&ocean_overflow_nml	debug_this_module	False	False	Talse	1 atse	1 0130
document and a second a second and a second a second a second and a second and a second and a se	do_bitwise_exact_sum	False	. 4.50			
	no_return_flow	False				
	overflow_delta	0.3333				
	overflow_mu	0.0001				
	overflow_umax	0.01				
	transport_units use_this_module	'Sv' False	False	False	False	False
&ocean_overflow_ofp_nml	use_this_module	1 0125	ו מנטכ	False	False	False
&ocean_parameters_nml	cp_liquid_runoff	4218.0		1 0135	1 0130	1 0130
	cp_ocean	3992.103 223 2	96 49			
	cp_solid_runoff	2106.0				
	grav	9.8				
	omega_earth	7.2921 ×				
		10^{-5}				
	rho0	1035.0				
&ocean_polar_filter_nml	tfreeze use_this_module	273.15	False	False	False	False
&ocean_pressure_nml	debug_this_module	False	raise	Faise	raise	raise
acceun_pressure_mmt	zero_correction_term_grad	False				
	zero_diagonal_press_grad	False				
	zero_eta_over_h_zstar_pressure	False				
	zero_pressure_force	False		False	False	False
&ocean_rivermix_nml	calving_insertion_thickness	0.0				
	debug_all_in_top_cell	False	F-I	Falas	Falsa	F-1
	debug_this_module debug_this_module_heat	False False	False	False	False	False
	discharge_combine_runoff_calve	True				
	do_bitwise_exact_sum	False				
	river_diffuse_salt	False	False	True	True	True
	river_diffuse_temp	False	False	True	True	True
	river_diffusion_thickness	0.0	0.0	0.0	0.0	0.0
	river_diffusivity river_insertion_thickness	0.0 40.0	0.0 40.0	0.0 40.0	0.0 40.0	0.0 40.0
	runoff_insertion_thickness	0.0	40.0	40.0	40.0	40.0
	use_this_module	True	True	True	True	True
&ocean_riverspread_nml	debug_this_module	False				
	riverspread_diffusion	False				
	riverspread_diffusion_passes	0				
	use_this_module	False	True	False	False	False
0	vel_micom_smooth	0.2		21 1: 2	,, ,,	71 11
&ocean_rough_nml &ocean_sbc_nml	rough_scheme	Truce	Terra	'beljaars'	'beljaars'	'beljaars
xoceau_2nc_iiiif	avg_sfc_temp_salt_eta avg_sfc_velocity	True True	True True	True True	True True	True True
	calvingspread	False	iiuc	False	False	False
	constant_hlf	True		· uise	. 4.50	. 4.50
	constant_hlv	True				
	constant_sss_for_restore	35.0				
	constant_sst_for_restore	12.0				
	constant_sst_for_restore convert_river_to_pme	False				
	constant_sst_for_restore convert_river_to_pme debug_water_fluxes	False False		Ealea	Ealco	Ealer
	constant_sst_for_restore convert_river_to_pme debug_water_fluxes do_bitwise_exact_sum	False False False		False False	False False	
	constant_sst_for_restore convert_river_to_pme debug_water_fluxes do_bitwise_exact_sum do_flux_correction	False False False False		False False	False False	
	constant_sst_for_restore convert_river_to_pme debug_water_fluxes do_bitwise_exact_sum	False False False				
	constant_sst_for_restore convert_river_to_pme debug_water_fluxes do_bitwise_exact_sum do_flux_correction do_langmuir	False False False False False	0.005			False
	constant_sst_for_restore convert_river_to_pme debug_water_fluxes do_bitwise_exact_sum do_flux_correction do_langmuir eta_restore_tscale ice_salt_concentration land_model_heat_fluxes	False False False False — 30.0 0.005 False		False False	False False	False False
	constant_sst_for_restore convert_river_to_pme debug_water_fluxes do_bitwise_exact_sum do_flux_correction do_langmuir eta_restore_tscale ice_salt_concentration land_model_heat_fluxes max_delta_salinity_restore	False False False False False - 30.0 0.005 False 0.5	0.5	False False 0.5	False False 0.5	False False False 0.5
	constant_sst_for_restore convert_river_to_pme debug_water_fluxes do_bitwise_exact_sum do_flux_correction do_langmuir eta_restore_tscale ice_salt_concentration land_model_heat_fluxes max_delta_salinity_restore max_ice_thickness	False False False False False - 30.0 0.005 False 0.5	0.5 8.0	False False 0.5 0.0	False False 0.5 0.0	False 0.5 0.0
	constant_sst_for_restore	False False False False False - 30.0 0.005 False 0.5 0.0 False	0.5	False False 0.5	False False 0.5	False 0.5 0.0
	constant_sst_for_restore convert_river_to_pme debug_water_fluxes do_bitwise_exact_sum do_flux_correction do_langmuir eta_restore_tscale ice_salt_concentration land_model_heat_fluxes max_delta_salinity_restore max_ice_thickness	False False False False False - 30.0 0.005 False 0.5	0.5 8.0	False False 0.5 0.0	False False 0.5 0.0	False False

Group (continued) Variable	original/ kiss_acces- som2 025deg jra55_ryf	original/ russ- accessom- mom4p1- input.nml	new_acces- som2 1deg jra55_ryf input.nml	new_acces- som2 025deg jra55_ryf input.nml	new_acces- som2 01deg jra55_ryf input.nml
	log- file.000000.out	·	put	put	put
runoff_salinity	0.0	0.0	0.0	0.0	0.0
runoff_temp_min runoffspread	0.0 False				
salinity_rei	35.0				
salt_correction_scale	_0.0	_	_0.0	0.0	0.0
salt_restore_as_salt_flux salt_restore_tscale	True 60.0	True 15.0	True 60.0	True 60.0	True 60.0
salt_restore_under_ice	True	True	True	True	True
sbc_heat_fluxes_const	False				
sbc_heat_fluxes_const_seasonal	False				
sbc_heat_fluxes_const_value tau_x_correction_scale	0.0 0.0				
tau_y_correction_scale	0.0				
taux_sinx	False				
tauy_siny	False				
temp_correction_scale	0.0	1.0	100	100	100
temp_restore_tscale use_constant_sss_for_restore	—10.0 False	-1.0	-10.0	-10.0	-10.0
use_constant_sst_for_restore	False				
use_full_patm_for_sea_level	False		False	False	False
use_ideal_calving	False				
use_ideal_runofl	False	Truca	Tuus	True	Tuus
use_waterflux use_waterflux_override_calving	True False	True	True	True	True
use_waterflux_override_evap	False				
use_waterflux_override_fpred	False				
waterflux_tavg	False	False			
zero_calving_fluxes	False	F-1	F-1	Falsa	F-1
zero_heat_fluxes zero_net_pme_eta_restore	False False	False	False	False	False
zero_net_salt_correction	False		False	False	False
zero_net_salt_restore	True	True	True	True	True
zero_net_water_correction	False	_	False	False	False
zero_net_water_couple_restore	True	True	True	True	True
zero_net_water_coupler zero_net_water_restore	True True	True True	True True	True True	True True
zero_pme_fluxes	False	nuc	nuc	nuc	iiuc
zero_river_fluxes	False				
zero_runoff_fluxes	False	F 1	F 1	F.1	
zero_surface_stress zero_water_fluxes	False False	False False	False False	False False	False False
&ocean_sbc_ofam_nml restore_mask_ofam	False	False	1 0130	1 0136	1 0130
river_temp_ofam	False	False			
&ocean_shortwave_csiro_nml read_depth		True			
use_this_module		True	False	False	False
&ocean_shortwave_qfdl_nml chl.default	0.08	7000			
&ocean_shortwave_gfdl_nml	False	False	False	False	False
enforce_sw_frac	True	True	True	True	True
optics_for_uniform_chl	False				
optics_manizza	True	True	True	True	True
optics_morel_antoine override_f_vis	False True		False	False	False
read_chl	True	False	True	True	True
sw_frac_top	0.0				
sw_morel_fixed_depths	False				
sw_pen_fixed_depths	T	False	т	т	т
use_this_module zmax_pen	True 300.0	False 200.0	True 300.0	True 300.0	True 300.0
&ocean_shortwave_jerlov_nml use_this_module	550.0	False	False	False	False
&ocean_shortwave_nml use_shortwave_csiro	False	True	False	False	False
use_shortwave_ext	False		_	_	=
use_shortwave_igfol	True	False False	True False	True False	True False
use_shortwave_jerlov use_this_module	False True	False True	Faise True	Faise True	False True
&ocean_sigma_transport_nml campingoose_delta	0.3333		1100	1100	1100
campingoose_mu	0.0001				
debug_this_module	False				
sigma_advection_check	True	False			
-i i i					
sigma_advection_on sigma_advection_sgs_only	False False	False			

roup (continued)	Variable	original/ kiss_acces- som2 025deg jra55_ryf log-	original/ russ- accessom- mom4p1- input.nml	new_acces- som2 1deg jra55_ryf input.nml	new_acces- som2 025deg jra55_ryf input.nml	new_acces- som2 01deg jra55_ryf input.nml
		file.000000.ou	ıt			
	sigma_diffusivity	1000.0				
	sigma_diffusivity_ratio	$1 imes 10^{-6}$	$1 imes 10^{-6}$			
	sigma_just_in_bottom_cell	True	True			
	sigma_umax	0.01	0.01			
	smooth_sigma_thickness	True	True			
	smooth_sigma_velocity	True	True			
	smooth_velmicom	0.2	0.2			
	thickness_sigma_layer	100.0	100.0			
	thickness_sigma_max	100.0	100.0			
	thickness_sigma_min	100.0	100.0			
	tmask_sigma_on	False	False			
	tracer_mix_micom	True	True			
	use_this_module	False	True	False	False	False
	vel_micom	0.05	0.05			
	verbose_init	True				
	write_a_restart	True				
Rocean_solo_nml	calendar	'NOLEAP'	'NOLEAP'	'NOLEAP'	'NOLEAP'	'NOLEAP
	date_init	1, 1, 1, 0, 0, 0	1, 1, 1, 0, 0, 0	1, 1, 1, 0, 0, 0	1, 1, 1, 0, 0, 0	1, 1, 1, 0, 0, 0
	days	0	0	1460	31	30
	debug_this_module	False				
	dt_cpld	1800	3600	3600	1200	600
	hours	0	0	0	0	(
	layout_mask	0,0				

Group (continued)	Variable	original/	original/	new_acces-	new_acces-	new_acces-
or our feature at	variable	kiss_acces-	russ-	som2	som2	som2
		som2 025deg	accessom- mom4p1-	1deg jra55_ryf	025deg jra55_ryf	01deg jra55_ryf
		jra55_ryf	input.nml	input.nml	input.nml	input.nml
		log- file.000000.out				
	mask_list	0, 0, 0, 0, 0, 0, 0, 0, 0, 0,				
		0, 0, 0, 0, 0,				
		0, 0, 0, 0, 0, 0, 0, 0, 0, 0,				
		0, 0, 0, 0, 0,				
		0, 0, 0, 0, 0, 0, 0, 0, 0, 0,				
		0, 0, 0, 0, 0, 0, 0, 0, 0, 0,				
		0, 0, 0, 0, 0,				
		0, 0, 0, 0, 0, 0, 0, 0, 0, 0,				
		0, 0, 0, 0, 0,				
		0, 0, 0, 0, 0, 0, 0, 0, 0, 0,				
		0, 0, 0, 0, 0,				
		0, 0, 0, 0, 0, 0, 0, 0, 0, 0,				
		0, 0, 0, 0, 0,				
		0, 0, 0, 0, 0, 0, 0, 0, 0, 0,				
		0, 0, 0, 0, 0,				
		0, 0, 0, 0, 0, 0, 0, 0, 0, 0,				
		0, 0, 0, 0, 0,				
		0, 0, 0, 0, 0, 0, 0, 0, 0, 0,				
		0, 0, 0, 0, 0,				
		0, 0, 0, 0, 0, 0, 0, 0, 0, 0,				
		0, 0, 0, 0, 0,				
		0, 0, 0, 0, 0, 0, 0, 0, 0, 0,				
		0, 0, 0, 0, 0,				
		0, 0, 0, 0, 0, 0, 0, 0, 0, 0,				
		0, 0, 0, 0, 0,				
		0, 0, 0, 0, 0, 0, 0, 0, 0, 0,				
		0, 0, 0, 0, 0,				
		0, 0, 0, 0, 0, 0, 0, 0, 0, 0,				
		0, 0, 0, 0, 0,				
		0, 0, 0, 0, 0, 0, 0, 0, 0, 0,				
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		0, 0, 0, 0, 0,				
		0, 0, 0, 0, 0, 0, 0, 0, 0, 0,				
		0, 0, 0, 0, 0,				
		0, 0, 0, 0, 0, 0, 0, 0, 0, 0,				
		0, 0, 0, 0, 0,				
		0, 0, 0, 0, 0, 0, 0, 0, 0, 0,				
		0, 0, 0, 0, 0,				
		0, 0, 0, 0, 0, 0, 0, 0, 0, 0,				
		0, 0, 0, 0, 0,				
	41	0, 0, 0, 0, 0, 0, 0, 0, 0, 0,				
	41	0, 0, 0, 0, 0,				
		0, 0, 0, 0, 0, 0, 0, 0, 0, 0,				

Group (continued)	Variable	original/ kiss_acces- som2 025deg jra55_ryf log-	original/ russ- accessom- mom4p1- input.nml	new_acces- som2 1deg jra55_ryf input.nml	new_acces- som2 025deg jra55_ryf input.nml	new_acces- som2 01deg jra55_ryf input.nml
	minutes	file.000000.out	0	0	0	0
	months	0	12	0	0	0
	n_mask restart_interval	0,0,0,0,0,0				
	seconds	0, 0, 0, 0, 0, 0	0	0	0	0
	years	1		0	0	0
&ocean_sponges_eta_nml &ocean_sponges_eta_ofam_nml	use_this_module athresh	False 0.5	False	False	False	False
&ocean_sponges_eta_orani_nint	days_to_restore	0.5				
	lambda	0.0083				
	npower secs_to_restore	1.0 0				
	taumin	720.0				
	use_adaptive_restore	False				
	use_hard_thump use_normalising	False False				
	use_sponge_after_init	False				
&ocean_sponges_tracer_nml	damp_coeff_3d	False	False			False
&ocean_sponges_tracer_ofam_nml	use_this_module athresh	False 0.5	False	False	False	False
woccur_sponges_cracer_sount_nine	days_to_restore	1				
	deflate	False				
	deflate_fraction lambda	0.6 0.0083				
	limit_salt	False				
	limit_salt_min	0.01				
	limit_salt_restore limit_temp	3600.0 False				
	limit_temp_min	-1.8				
	<u>limit_temp_restore</u>	10 800.0				
	npower secs_to_restore	1.0 0				
	taumin	720.0				
	use_adaptive_restore	False				
	use_hard_thump use_normalising	False False				
	use_sponge_after_init	False				
&ocean_sponges_velocity_nml	damp_coeff_3d use_this_module	False False	False	False	False	False
&ocean_sponges_velocity_ofam_nml	athresh	0.5	1 disc	1 0136	1 disc	1 0130
	days_to_restore	1				
	lambda npower	0.0083 1.0				
	secs_to_restore	0				
	taumin	720.0				
	use_adaptive_restore use_hard_thump	False False				
	use_normalising	False				
	use_sponge_after_init	False				
&ocean_submesoscale_nml	coefficient_ce constant_hblt	0.05 100.0		0.05	0.05	0.05
	debug_this_module	False	False	False	False	False
	diag_step	1200	50000	50000	50000	5000
	front_length_const front_length_deform_radius	5000.0 True	5000.0 True	5000.0 True	5000.0 True	5000.0 True
	limit_psi	True	True	True	True	True
	limit_psi_velocity_scale	0.5	0.5	0.5	0.5	0.5
	min_kblt <mark>minimum_hblt</mark>	4 0.0	4	4	4	2
	smooth_advect_transport	True		True	True	True
	smooth_advect_transport_num	4 Falso	Falss	4 Falso	4 Falso	False
	smooth_hblt smooth_hblt_num	False 2	False	False	False	False
	smooth_psi	True		True	True	True
	smooth_psi_num	3		3	5	Fala
	submeso_advect_flux submeso_advect_limit	False True		False True	False True	False True
	submeso_advect_sweby	False		iiuc	nuc	iiut
				True	True	True
	submeso_advect_upwind	True				
	submeso_advect_upwind submeso_advect_zero_bdy submeso_diffusion	Irue True False		True False	True False	True False

Group (continued)	Variable	original/ kiss_acces- som2 025deg jra55_ryf	original/ russ- accessom- mom4p1- input.nml	new_acces- som2 1deg jra55_ryf input.nml	new_acces- som2 025deg jra55_ryf input.nml	new_acces- som2 01deg jra55_ryf input.nml
		log- file.000000.ou	•	·	·	
	submeso_diffusion_scale	10.0	-	10.0	10.0	10.0
	submeso_limit_flux submeso_skew_flux	True True	True	True	True	True
	time_constant	86 400.0		Huc	iiuc	iiuc
	use_hblt_constant	False				
	use_hblt_equal_mld	True	True	True	True	True
	<mark>use_psi_legacy</mark> use_this_module	False True	True	False True	False True	False True
&ocean_tempsalt_nml	debug_this_module	False	ilue	False	False	False
	pottemp_2nd_iteration	True	True	True	True	True
	pottemp_equal_contemp	True		True	True	True
	reinit_ts_with_ideal reinit_ts_with_ideal_efold	False 1000.0				
	reinit_ts_with_ideal_svalue	30.0				
	reinit_ts_with_ideal_tvalue	10.0				
	s_max	70.0	55.0	70.0	70.0	70.0
	s_max_limit	42.0	42.0	42.0	42.0	42.0
	s_min s_min_limit	0.0 2.0	-1.0 0.0	0.0 2.0	0.0 2.0	0.0 2.0
	t_max	55.0	55.0	55.0	55.0	55.0
	t_max_limit	32.0	32.0	32.0	32.0	32.0
	t_min	-20.0	-5.0	-20.0	-20.0	-20.0
	t_min_limit temperature_variable	— 5.0 'potential	-2.0 conservative	— 5.0 'potential	— 5.0 'potential	-5.0 'potential
	temperature_variable	temp'	temp'	temp'	temp'	temp
	teos10	False	False			
&ocean_thickness_nml	debug_this_module	False	False	False	False	False
	debug_this_module_detail	False	False	False	False	False
	depth_min_for_sigma enforce_positive_dzt	0.01 False				
	epsilon_init_thickness	1×10^{-5}				
	full_step_topography	False				
	initialize_zero_eta	False	False			
	linear_free_surface	False				
	max_num_bad_print pbot0_simple	25 False				
	read_rescale_rho0_mask	False	False			
	read_rho0_profile	False				
	rescale_mass_to_get_ht_mod	False	70	False	False	False
	rescale_rho0_basin_label rescale_rho0_mask_qfdl	−1.0 False	7.0 False			
	rescale_rho0_value	1.0	0.75			
	thickness_dzt_min	2.0	1.0			
	thickness_dzt_min_init	10.0	2.0	,	, , ,	,
	thickness_method update_dzwu_k0	'energetic' True	'energetic'	'energetic'	'energetic'	'energetic
	write_a_restart	True				
&ocean_topog_nml	debug_this_module	True				
	flat_bottom	False				
	flat_bottom_ht flat_bottom_kmt	5500.0 50				
	kmt_recompute	False				
	kmt_recompute_offset	0				
		•				
	min_thickness	1.0	25.0			
9	min_thickness write_topog	1.0 False				
kocean_tracer_advect_nml	min_thickness write_topog advect_sweby_all	1.0 False False	25.0 True			
&ocean_tracer_advect_nml	min_thickness write_topog advect_sweby_all async_domain_update	1.0 False				
&ocean_tracer_advect_nml	min_thickness write_topog advect_sweby_all async_domain_update compute_gyre_overtum_diagnose debug_this_module	1.0 False False	True True False	False	False	False
&ocean_tracer_advect_nml	min_thickness write_topog advect_sweby_all async_domain_update compute_gyre_overtum_diagnose debug_this_module do_fast_compute	1.0 False False False	True True	False	False	False
&ocean_tracer_advect_nml	min_thickness write_topog advect_sweby_all async_domain_update compute_gyre_overtum_diagnose debug_this_module do_fast_compute limit_with_upwind	1.0 False False False False	True True False	False	False	False
&ocean_tracer_advect_nml	min_thickness write_topog advect_sweby_all async_domain_update compute_gyre_overtum_diagnose debug_this_module do_fast_compute	1.0 False False False	True True False	False False	False	
&ocean_tracer_advect_nml	min_thickness write_topog advect_sweby_all async_domain_update compute_gyre_overtum_diagnose debug_this_module do_fast_compute limit_with_upwind psom_limit_prather	1.0 False False False False False	True True False True			
&ocean_tracer_advect_nml	min_thickness write_topog advect_sweby_all async_domain_update compute_gyre_overturn_diagnose debug_this_module do_fast_compute limit_with_upwind psom_limit_prather read_basin_mask write_a_restart zero_tracer_advect_horz	1.0 False	True True False True			
&ocean_tracer_advect_nml	min_thickness write_topog advect_sweby_all async_domain_update compute_gyre_overturn_diagnose debug_this_module do_fast_compute Limit_with_upwind psom_Limit_prather read_basin_mask write_a_restart zero_tracer_advect_horz zero_tracer_advect_vert	1.0 False	True True False True			
	min_thickness write_topog advect_sweby_all async_domain_update compute_gyre_overturn_diagnose debug_this_module do_fast_compute Limit_with_upwind psom_Limit_prather read_basin_mask write_a_restart zero_tracer_advect_horz zero_tracer_advect_vert buoyancy_crit	1.0 False	True True False True			
	min_thickness write_topog advect_sweby_all async_domain_update compute_gyre_overturn_diagnose debug_this_module do_fast_compute limit_with_upwind psom_limit_prather read_basin_mask write_a_restart zero_tracer_advect_horz zero_tracer_advect_vert buoyancy_crit debug_diagnose_mixinga debug_diagnose_mixinga	1.0 False True False False False O.0003	True True False True			
	min_thickness write_topog advect_sweby_all async_domain_update compute_gyre_overturn_diagnose debug_this_module do_fast_compute limit_with_upwind psom_limit_prather read_basin_mask write_a_restart zero_tracer_advect_horz zero_tracer_advect_vert buoyancy_crit debug_diagnose_mixinga debug_diagnose_mixingb debug_diagnose_mixingb	1.0 False	True True False True			
&ocean_tracer_advect_nml &ocean_tracer_diag_nml	min_thickness write_topog advect_sweby_all async_domain_update compute_gyre_overturn_diagnose debug_this_module do_fast_compute limit_with_upwind psom_limit_prather read_basin_mask write_a_restart zero_tracer_advect_horz zero_tracer_advect_vert buoyancy_crit debug_diagnose_mixinga debug_diagnose_mixinga	1.0 False False False False False False False False False True False False False False False False False	True True False True			False False

Column False Fal	Group (continued)	Variable	original/ kiss_acces- som2 025deg jra55_ryf log-	original/ russ- accessom- mom4p1- input.nml	new_acces- som2 1deg jra55_ryf input.nml	new_acces- som2 025deg jra55_ryf input.nml	new_acces- som2 01deg jra55_ryf input.nml
Bellets 10		do hitwise exact sum	file.00000.out		False	False	False
Beautiful State 1.0				1 0130	1 0130	1 0130	i atse
1		frazil_factor					
1							
March 1986 by September 1989 September 1989 September 2089 Septemb							
Secretary strategy ramed Secretary strategy							
Compute Transk limit on debug his more false							30.0
	&ocean_tracer_nml			0.0	0.0	0.0	0.0
True				Ealco	Falso	Falso	Ealer
frazil. Inesting. Jebber e-physics of False False False False False Integrals (1994) and peter (1994) and pe							
							False
Interpolate Page True							
			False				
				-	_	_	_
Content				lrue	True	True	True
Institution True				Falco	Falco	Falco	Ealer
Second				1 0135	1 9125	1 0125	raist
Wester Passer False Fa					True	True	True
Each False			True				
Accean_velocity_advect_nml Setting_ntile_nti		zero_tendency					False
Second Adaptive Annier 1 x 10 - 5				False	False	False	False
Rebust True False Fals	&ocean_tracer_util_nml						
Accean_velocity_advect_nmml		, ,					
	&ocean velocity advect nml						
Velocity_advect_num_classes_velocity_advect_num_classes_velocity_diag_nmt Velocity_advect_num_classes_velocity_advect_num_classes_velocity_diag_nmt Velocity_diag_nmt	ocean_velocity_advect_nml						
Base False							
Access False Fal							
March Marc							
do. bitwise exact xim False	&ocean_velocity_diag_nml						False
Benergy_cliag_step 4320 120 4320 4320 576 Band creft_num_max 100 100 100 100 100 100 100 Barge_cft_value 100 100 1000 1000 1000 1000 1000 1000 Barge_cft_value 100 1000 1000 1000 1000 1000 1000 1000 Bassed B				120	4320	4320	5/6
Land cell num max 100				120	4320	4320	5760
Large_cft_value				120	4320	4320	3700
Second S			400	10.0	10.0	10.0	10.0
&cean_velocity_nml adams_bashforth_epsilon adams_bashforth_third rive True True True True True True True Tru				100.0	100.0	100.0	100.0
adams.bashforth.third True True True True True True constant. u co							
Constant v 0.0 Constant v	&ocean_velocity_nml			T	T	T	т
Constant v O, O Debug Hars False Fal				irue	irue	irue	ITUE
max_cgint 1.5 1.0							
Truncate_velocity_late				1.0	1.0	1.0	1.0
truncate_verbose				False	False	False	False
truncate_verbose True True True True True Update velocity, via. uprime True Use_constant_velocity False Use_constant_velocity Use_constant_veloc							
update_velocity_via_uprime use_constant_velocity Write_a_restart True zero_tendency_ Ealse Talse		•					
use_constant_velocity False write_a_restart True zero_tendency False False False False False zero_tendency_explicit_a False F				irue	irue	irue	ITUE
write_a_restart zero_tendency							
zero_tendencyFalseFalseFalseFalseFalseFalsezero_tendency_explicit_aFalseFalseFalseFalseFalsezero_tendency_explicit_bFalseFalseFalseFalseFalse&ocean_vert_kpp_iow_nmluse_this_moduleFalseFalseFalseFalse&ocean_vert_kpp_mom4p1_nmlbvf_from_below calc_visc_on_cgridFalseFalseFalseconcv1.8Concv1.8Concv1.8cw_00.15Concv1.8Concv1.8debug_this_module diff_cbt_limit do_langmuirFalseConcv0.00.00.0diff_cbt_limit do_langmuir0.1ConcvTrueTrueTrueTruedouble_cliffusion hbl_with_ritFalseTrueTrueTrueTrueTrue							
zero_tendency_explicit_bFalseFalseFalseFalseFalse&ocean_vert_kpp_iow_nmluse_this_moduleFalseFalseFalseFalse&ocean_vert_kpp_mom4p1_nmlbvf_from_below calc_visc_on_cgridFalseconcv1.8cw_00.15debug_this_module diff_cbt_limit0.000.00.00.0diff_cbt_limit do_langmuir hbl_with_rit0.1full hbl_with_ritTrueTrueTrueTrueTrue				False	False		False
zero_tendency_implicit False False False False &ocean_vert_kpp_iow_nml use_this_module False False False &ocean_vert_kpp_mom4p1_nml bvf_from_below calc_visc_on_cgrid False concv 1.8 1.8 cw_0 0.15 debug_this_module diff_cbt_iw 0.0 0.0 0.0 0.0 diff_cbt_limit 0.005 diff_cbt_limit 0.005 diff_con_limit 0.1 do_langmuir False double_diffusion True True True True hbl_with_rit False							False
&ocean_vert_kpp_iow_nml use_this_module False False False &ocean_vert_kpp_mom4p1_nml byf_from_below calc_visc_on_cgrid False concv 1.8 Cw_0 0.15 debug_this_module false diff_cbt_iw 0.0 0.0 0.0 0.0 diff_cbt_limit outs 0.005 0.0 0.0 0.0 0.0 do_langmuir false double_diffusion frue frue frue frue frue frue frue frue							False
&ocean_vert_kpp_mom4p1_nml bvf_from_below	Socean yert kon joy aml	, , ,	False				
calc_visc_on_cgrid concv 1.8 cw_0 0.15 debug_this_module diff_cbt_iw 0.0 0.0 0.0 0.0 0.0 diff_cbt_limit 0.005 diff_con_limit 0.1 do_langmuir False double_diffusion True True True True			Falso		raise	raise	rdist
concv 1.8 cw_0 0.15 debug_this_module False diff_cbt_iw 0.0 0.0 0.0 0.0 0.0 diff_cbt_limit 0.005 diff_con_limit 0.1 do_langmuir False double_diffusion True True True True	«оссин-устыкру-шоштрт-шш						
cw_0 0.15 debug_this_module False diff_cbt_iw 0.0 0.0 0.0 0.0 0.0 diff_cbt_limit 0.005 diff_con_limit 0.1 do_langmuir False double_diffusion True True True True							
diff_cbt_liw 0.0 0.0 0.0 0.0 diff_cbt_limit 0.005 diff_con_limit 0.1 do_langmuir False double_diffusion True True True True hbl_with_rit False		cw_0	0.15				
diff_cbt_limit 0.005 diff_con_limit 0.1 do_langmuir False double_diffusion True True True True hbl_with_rit False			False				
diff_con_limit 0.1 do_langmuir False double_diffusion True True True True Tru hbl_with_rit False					0.0	0.0	0.0
<mark>do_langmuir</mark> False <mark>double_diffusion</mark> True True True Tru <u>hbl_with_rit</u> False							
<mark>double_diffusion</mark> True True True True Tru hbl_with_rit False							
hbl_with_rit False					True	True	True
					iiuc	iiuc	nut
TOTAL TOTAL TOTAL		kbl_standard_method	False		False	False	False

Group (continued)	Variable	original/ kiss_acces- som2 025deg jra55_ryf log-	original/ russ- accessom- mom4p1- input.nml	new_acces- som2 1deg jra55_ryf input.nml	new_acces- som2 025deg jra55_ryf input.nml	new_acces- som2 01deg jra55_ryf input.nml
	kl_min	file.000000.out	1			
	L_smyth	2.0				
	lgam limit_ghats	1.04 False				
	limit_with_hekman	True				
	linear_hbl	True				
	ltmax non_local_kpp	5.0 True				
	radiation_iow	False				
	radiation_large	False				
	radiation_zero ricr	False 0.3		0.3	0.3	0.3
	shear_instability	True				
	smooth_blmc	False		False	False	False
	smooth_ri_kmax_eq_kmu use_max_shear	True False		True	True	True
	use_sbl_bottom_flux	False				
	use_this_module	True		True	True	True
	variable_vtc visc_cbu_iw	False 0.0		0.0	0.0	0.0
	visc_cbu_limit	0.005		0.0	0.0	0.0
	visc_con_limit	0.1				
	wsfc_combine_runoff_calve wstfac	True 0.6				
&ocean_vert_kpp_nml	diff_cbt_iw		0.0			
	diff_con_limit		0.1			
	double_diffusion kbl_standard_method		True True			
	ricr		0.3			
	smooth_blmc		True			
	use_this_module visc_cbu_iw		True 0.0			
	visc_cou_limit		0.0			
&ocean_vert_mix_nml	afkph_00	0.55	0.65			
	<mark>afkph_90</mark> aidif	0.55 1.0	0.75 1.0	1.0	1.0	1.0
	bryan_lewis_diffusivity	False	False	False	False	False
	bryan_lewis_lat_depend	False	True	False	False	False
	bryan_lewis_lat_transition debug_this_module	35.0 False	35.0			
	dfkph_00	1.05	1.15			
	dfkph_90	1.05	0.95			
	diff_cbt_tanh diff_cbt_tanh_max	False 0.001				
	diff_cbt_tanh_min	2×10^{-5}				
	diff_cbt_tanh_zmid	150.0				
	diff_cbt_tanh_zwid hwf_30_diffusivity	30.0 2×10^{-5}				
	hwf_depth_transition	25 000 000.0				
	hwf_diffusivity	False		False	False	False
	hwf_diffusivity_3d	False		2×10^{-6}	2×10^{-6}	2×10^{-6}
	hwf_min_diffusivity hwf_n0_2omega	2×10^{-6} 20.0		20.0	2 × 10 -	2 × 10 - 20.0
	linear_taper_diff_cbt_table	False	False	20.0	20.0	20.0
	num_121_passes	1 Falso				
	quebec_2009_10_bug sfkph_00	False $4.5 imes 10^{-5}$	4.5×10^{-5}			
	sfkph_90	4.5×10^{-5}	4.5×10^{-5}			
	smooth_rho_n2	True				
	use_diff_cbt_table use_explicit_vert_diffuse	False True	False	False	False	False
	verbose_init	True				
	vert_diff_back_via_max	True	True	True	True	True
	vert_mix_scheme	'kpp mom4n1'	'kpp'	'kpp mom/n1'	'kpp mom4n1'	'kpp
	vert_visc_back	mom4p1' False		mom4p1'	mom4p1'	mom4p1
	visc_cbu_back_max	0.01				
	visc_cbu_back_min	0.001				
	visc_cbu_back_zmid visc_cbu_back_zwid	50.0 30.0				
	vmix_min_diss_bvfreq_scale	0.0006				
	vmix_min_diss_const	1×10^{-7}				

Group (continued)	Variable	original/ kiss_acces- som2 025deg jra55_ryf	original/ russ- accessom- mom4p1- input.nml	new_acces- som2 1deg jra55_ryf input.nml	new_acces- som2 025deg jra55_ryf input.nml	new_acces- som2 01deg jra55_ryf input.nml
		log- file.000000.ou	ıt			
	vmix_min_diss_flux_ri_max	0.2	AL .			
	vmix_rescale_nonbouss	False				
	vmix_set_min_dissipation	False	252222			
	zfkph_00 zfkph_90	250 000.0 250 000.0	250 000.0 250 000.0			
&ocean_vert_tidal_nml	background_diffusivity	0.0	5×10^{-6}	0.0	0.0	0.0
Coccan_vert_tidat_min	background_viscosity	0.0001	0.0001	0.0001	0.0001	0.0001
	bottom_drag_cd	0.0024				
	debug_this_module	False				
	decay_scale	500.0	300.0	500.0	500.0	500.0
	default_roughness_length default_tide_speed	25.0 0.01				
	draq_dissipation_efold	True				
	drag_dissipation_tide_period	43 200.0				
	drag_dissipation_use_cdbot	True		True	True	True
	drag_mask_deep	True				
	drag_mask_deep_ratio	0.1	13	10	10	
	drhodz_min	1×10^{-10}	1×10^{-12}	1×10^{-10}	1×10^{-10}	1×10^{-10}
	fixed_wave_dissipation max_drag_diffusivity	False 0.005	False 0.01	False	False	Fals
	max_wave_diffusivity	0.003	0.01	0.01	0.01	0.0
	mixing_efficiency	0.2	0.01	0.01	0.01	0.0
	mixing_efficiency_n2depend	True	True	True	True	True
	munk_anderson_p	0.25				
	munk_anderson_sigma	3.0				
	num_121_passes	_ 1				
	read_leewave_dissipation	False	Truo	Truo	Truo	Teu
	read_roughness read_tide_speed	True True	True True	True True	True True	True True
	read_wave_dissipation	False	False	False	False	False
	reading_roughness_amp	True	True	True	True	True
	reading_roughness_length	False	False	False	False	False
	roughness_scale	12 000.0	20 000.0	12 000.0	12 000.0	12 000.0
	shelf_depth_cutoff	-1000.0	160.0	-1000.0	-1000.0	-1000.0
	smooth_bvfreq_bottom smooth_rho_n2	True True				
	speed_min	0.005				
	tidal_diss_efficiency	0.333 33				
	tide_speed_data_on_t_grid	True	True	True	True	True
	use_drag_dissipation	True	True	True	True	True
	use_leewave_dissipation	False		Falsa	Falsa	F-1-
	use_legacy_methods use_this_module	False True	True	False True	False True	False True
	use_wave_dissipation	True	True	True	True	True
	vel_micom_smooth	0.2				
	wave_diffusivity_monotonic	True				
	wave_energy_flux_max	0.1	0.1	0.1	0.1	0.1
&ocean_vert_util_nml	debug_this_module	False				
	num_n2_smooth	1				
	num_ri_smooth smooth_n2	1 True				
	smooth_ri_number	True				
&ocean_wave_nml	damp_where_ice	True				
	debug_this_module	False				
	filter_wave_mom	True				
	use_this_module	False				
	use_tma	True				
	wavedamp write_a_restart	−10.0 True				
&ocean_xlandinsert_nml	use_this_module	iiue	False	False	False	False
	verbose_init		True	i disc	i uisc	i uist
&ocean_xlandmix_nml	use_this_module		False	False	False	False
	verbose_init		True			
	xlandmix_kmt		True			
&time_interp_external_nml	debug_this_module	False				
	max_fields	100				
	max_files num_io_buffers	40 2				
&time_interp_nml	perthlike_behavior	False				
&xgrid_nml	do_alltoall	. 4.50				True

Group (continued) Va	ariable	original/ kiss_acces- som2 025deg jra55_ryf log- file.000000.out	original/ russ- accessom- mom4p1- input.nml	new_acces- som2 1deg jra55_ryf input.nml	new_acces- som2 025deg jra55_ryf input.nml	new_acces- som2 01deg jra55_ryf input.nml
interp_n	nethod			'second	'second	'second
				order'	order'	order'
make_exchange_rep	roduce			False	False	False
n en	subset			16	16	16