

Atm.nc			
2d	Fw_atl_indpac	Freshwater transport from Atlantic to Indo-Pacific catchment basin	Sv
	Fw_pac_atl	Freshwater transport from Pacific to Atlantic catchment basin	Sv
	Had_fi		Deg
	Had_width		Deg
3d	Acbarz	Zonal mean cross-isobar angle	Rad
	Coszm	Radiation weighted daily mean cosine of solar zenith angle	
	Ekez	Zonal mean eddy kinetic energy	M2/s2
	Faycptg	Meridional cp*T transport by mean circulation	PW
	Faydseg	Meridional dry static energy transport by mean circulation	PW
	Fayg		
	Fayleg	Meridional latent heat transport by mean circulation	PW
	Faywtrg	Meridional moisture transport by mean circulation	Kg/s
	Frlnd	Land fraction in grid cell	
	Frocn	Ocean fraction in grid cell	
	Fyseg	Total meridional dry static energy transport	PW
	Fyheatg	Total meridional heat transport	PW
	Fyleg	Total meridional latent heat transport	PW
	Fywtrg	Total meridional moisture transport	Kg/s
	Ptrop	Relative pressure at tropopause	
	Slope	Topography slope	m/m
	Slope_x	Topography slope in zonal direction	m/m
	Slope_y	Topography slope in meridional direction	m/m
	Slpz	Zonal mean sea level pressure	Pa
	Solarm	Daily mean TOA incoming solar radiation	W/m2
	Tskslz	Zonal mean skin temperature reduced to sea level	K
	Tslz	Zonal mean sea level temperature	K
	Uz500	Zonal mean 500 hPa zonal wind	m/s
	Uz850	Zonal mean 850 hPa zonal wind	m/s
	Vabz	Zonal mean meridional ageostrophic wind in PBL	m/s
	Zsa	Grid cell average surface elevation	M
	Zsa_smooth	Grid cell average smoothed surface elevation	M
4d	Ri	Bulk Richardson number	
	Acbar	Cross-isobar angle	Rad
	Alb_cld	Cloud albedo	
	Alb_plan	Planetary albedo	
	Alb_sur_cld	Cloudy-sky surface albedo	
	Alb_sur_cs	Clear-sky surface albedo	
	Aslp	Azonal sea level pressure	Pa
	Aslp_temp	Azonal sea level pressure from azonal temperature	Pa
	Aslp_topo	Azonal sea level pressure from topographic stationary waves	Pa
	Atsksl	Azonal sea level temperature	K
	Atsl	Azonal sea level temperature	K
	Atsli	Azonal sea level temperature	K

Cd0a	Grid-cell average drag coefficient without orographic component	
Cda	Grid-cell average drag coefficient	
Cdif	Effective macrodiffusive coefficient	M2/s
Cld	Total cloud fraction in grid cell	
Cld_low	Total cloud fraction in grid cell	
Cld_rh	Total cloud fraction in grid cell	
Clot	Cloud optical thickness	

Convadse	Column integrated dry static energy convergence by mean circulation	W/m2
Convawtr	Column integrated moisture convergence by mean circulation	Kg/m2/day
Convddse	Column integrated dry static energy convergence by synoptic eddies	
Convdsse	Column integrated dry static energy convergence by synoptic eddies	
Convdwtr	Column integrated moisture convergence by synoptic eddies	Kg/m2/s
Convwtr	Column integrated moisture convergence	Kg/m2/day
Cosz	Cosine of solar zenith angle	
Cre_sur	Cloud radiative effect at the surface	W/m2
Cre_top	Cloud radiative effect at TOA	W/m2
Ctt	Clout top temperature	K
Dam	Prognostic atmospheric dust mass mixing ratio	Kg/kg
Diffxdse	Zonal effective macrodiffusivity for dry static energy	M2/s
Diffxwtr	Zonal effective macrodiffusivity for dry water vapor	M2/s
Diffydse	Meridional effective macrodiffusivity for dry static energy	M2/s
Diffywtr	Meridional effective macrodiffusivity for water vapor	M2/s
Dq	Specific humidity gradient between saturated skin and 2m	Kg/kg
Dr	Specific humidity gradient between saturated skin and 2m	Kg/kg
Dust_dep	Dust deposition	Kg/m2/s
Dust_dep_dry	Dry dust deposition	Kg/m2/s
Dust_dep_wet	Wet dust deposition	Kg/m2/s
Dust_emis	Dust emissions	Kg/m2/s
Dust_load	Atmospheric dust load	Kg/m2
Dust_ot	Dust optical thickness	
Dz500	Azonal geopotential height at 500 hPa	M
Eke	Eddy kinetic energy	M2/s2
Ekeadv	Advection of eddy kinetic energy	
Ekedif	Diffusion of eddy kinetic energy	
Ekediss	Dissipation of eddy kinetic energy	
Ekeprod	Production of eddy kinetic energy	
Epsa	Epsilon	
Evpa	Grid-cell average evaporation	Kg/m2/day
Fweff	Effective vertical velocity factor for cloud parametrization	m/s
Gamb	Temperature lapse rate at the surface	K/m
Gams	Temperature lapse rate in the boundary layer	K/m
Gamt	Temperature lapse rate at 15km	K/m
Hcld	Cloud top height	M

Hdust	Dust height scale	M
Hqeff	Effective specific humidity height scale	M
Hrm	Relative humidity height scale	M
Htrop	Height of tropopause	M
Lha	Grid-cell average surface latent heat flux	W/m2
Lwr_atm	Grid-cell average net longwave radiation at TOA	W/m2
Lwr_atm_cld	Grid-cell average net longwave radiation at TOA	W/m2
Lwr_cld	Grid-cell average net longwave radiation at the tropopause	W/m2
Lwr_cre_sur	Longwave cloud radiative effect at the surface	W/m2
Lwr_cre_top	Longwave cloud radiative effect at the TOA	W/m2
Lwr_sur	Grid-cell average net longwave radiation at the surface	W/m2
Lwr_sur_cs	Grid-cell average net longwave clear-sky radiation at the surface	W/m2
Lwr_top	Grid-cell average net longwave radiation at TOA	W/m2
Lwr_top_cs	Grid-cell average net longwave clear-sky radiation at TOA	W/m2

Lwr_tro	Grid-cell average net longwave radiation at the tropopause	W/m2
Prc	Total precipitation	Kg/m2/day
Prcs	Snowfall	Kg/m2/day (equiv.)
Prcw	Rainfall	Kg/m2/day
Q2a	Grid-cell mean 2m specific humidity	Kg/kg
Qam	Prognostic atmosphere specific humidity	Kg/kg
R2a	Grid-cell mean 2m relative humidity	
Ra2a	Grid-cell average surface air density	Kg/m3
Ram	Prognostic atmosphere relative humidity	
Rb_atm	Radiative balance of the atmosphere	W/m2
Rb_str	Radiative balance of the stratosphere	W/m2
Rb_sur	Radiative balance at the surface	W/m2
Rb_top	Radiative balance at TOA	W/m2
Rskin_ram	Atmospheric relative humidity	
Rskina	Grid-cell mean skin relative humidity	
Sha	Grid-cell average surface sensible heat flux	W/m2
Slp	Sea level pressure	Pa
Slp1	Sea level pressure derived using constant 6.5 K/km lapse rate	Pa
So4_ot	SO4 optical thickness	
Solar	TOA incoming solar radiation	W/m2
Swr_atm	Grid-cell average net shortwave radiation at TOA	W/m2
Swr_cre_sur	Shortwave cloud radiative effect at the surface	W/m2
Swr_cre_top	Shortwave cloud radiative effect at TOA	W/m2
Swr_dw_sur	Grid-cell average downward shortwave radiation at the surface	W/m2
Swr_dw_top	Incoming shortwave radiation at TOA	W/m2
Swr_sur	Grid-cell average net shortwave radiation at the surface	W/m2
Swr_sur_cs	Grid-cell average net shortwave clear-sky radiation at the surface	W/m2
Swr_top	Grid-cell average net shortwave radiation at the TOA	W/m2
Swr_top_cs	Grid-cell average net shortwave clear-sky radiation at TOA	W/m2

T2a	Grid-cell mean 2m temperature	K
T2m_bias	Grid-cell mean 2m temperature	K
Tam	Prognostic atmospheric temperature	K
Thetae	Grid-cell mean 2m temperature	K
Tskin_t2	Skin temperature – 2m temperature	K
Tskin_tam	Skin temperature – atmospheric temperature	K
Tskina	Grid-cell mean skin temperature	K
Tsksl	Azonal sea level temperature	K
Tsl	Sea level temperature	K
Ttrop	Temperature of stratosphere	K
Uab	Zonal ageostrophic wind in the boundary layer	m/s
Ugb	Zonal geostrophic wind in the boundary layer	m/s
Us	Zonal 10m wind	m/s
Usk	Zonal katabatic surface wind	m/s
Vab	Meridional ageostrophic wind in the boundary layer	m/s
Vgb	Meridional geostrophic wind in the boundary layer	m/s
Vs	Meridional 10m wind	m/s
Vsk	Meridional katabatic surface wind	m/s
Wcld	Vertical velocity at cloud level	m/s
Wcon	Column integrated water content	Kg/m2
Weff	Effective vertical velocity	m/s

	Wind	10m wind speed	m/s
	Wind_syn	Synoptic 10m wind	m/s
	Woro	Vertical velocity induced by sub-grid orography	m/s
	Wsyn	Synoptic vertical velocity at 700 hPa	m/s
	Xz	Mean meridional mass streamfunction	Kg/s
	Zs	Surface elevation for each macro surface type	m
5d	Alb_ir_c	Near-infrared diffuse surface albedo for each macro surface type	
	Aln_ir_s	Near-infrared clear sky surface albedo for each macro surface type	
	Alb_vu_c	Visible surface albedo for each macro surface type	
	Alb_vu_s	Visible clear-sky surface albedo for each macro surface type	
	Cd	Drag coefficient for each macro surface type	
	Flwr_dw_sur	Downward surface longwave radiation for each surface type	W/m2
	Flwr_dw_sur_cld	Downward surface longwave cloudy radiation for each surface type	W/m2
	Flwr_dw_sur_cs	Downward surface longwave clear-sky radiation for each surface type	W/m2
	Flwr_up_sur	Upward surface longwave radiation for each surface type	W/m2
	Frst	Fraction of macro surface types	
	Fswr_sur	Net surface shortwave radiation for each surface type	W/m2
	Gamma	3D atmospheric temperature lapse rate	K/m
	Q2	2m specific humidity for each macro surface type	Kg/kg
	Q3	3d specific humidity	Kg/kg
	R2	2m relative humidity for each macro surface type	
	R3	3d relative humidity	

Ra2	Surface air density	Kg/m2
Rho	3d atmospheric density	Kg/m3
T2	2m temperature for each macro surface type	K
T3	3d atmospheric temperature	K
Taux	Zonal surface wind stress	N/m2
Tauy	Meridional surface wind stress	N/m2
Tp	3d potential temperature	K
Tskin	Skin temperature for each macro surface type	K
U3	3d zonal wind	m/s
V3	3d meridional wind	m/s
W3	3d vertical velocity	m/s

### Atm\_ts.nc

1d	Smax65N	Maximum insolation at 65N	W/m2
	Ch4	Atmospheric CH4 concentration	Ppb
	Cld	Cloud fraction	
	Cld_l	Cloud fraction	
	Co2	Atmospheric CO2 concentration for radiation	Ppm
	Dustdep	Dust deposition	Tg/yr
	Dustdrydep	Dust dry deposition	Tg/yr
	Dustload	Dust load	Tg
	Dustwetdep	Dust wet deposition	Tg/yr
	Evp	Evaporation	10^15 kg
	Evp_l	Evaporation	10^15 kg
	Fw_atl_indpac	Water vapor transport from Atlantic to Indo-Pacific	Sv
	Fw_pac_atl	Water vapor transport from Pacific to Atlantic	Sv
	Hcld	Cloud height	m/10^3
	Htrop	Tropopause height	m/10^3
	Ldwnsur	Longwave down at the surface	W/m2

	Ldnsurcs	Clear-sky longwave down at surface	W/m2
	Lh	Surface latent heat flux	W/m2
	Lh_l	Surface latent heat flux	W/m2
	Lnetsur	Longwave net at the surface	W/m2
	Lnetsur_l	Longwave net at the surface	W/m2
	Lnetsurcs	Clear-sky longwave net at the surface	W/m2
	Lnettop	Longwave net at the TOA	W/m2
	Lnettop_l	Longwave net at the TOA	W/m2
	Lnettopcs	Clear-sky longwave net at the TOA	W/m2
	Lupsur	Longwave up at the surface	W/m2
	Lwrcrf	Longwave cloud radiative forcing	W/m2
	N2o	Atmospheric N2O concentration	Ppb
	Plan	Planetary albedo	
	Prc	Precipitation	10^15 kg
	Prc_l	precipitation	10^15 kg
	Q2	Surface air humidity	Kg/kg

Q2_l	Surface air humidity	Kg/kg
R2	Surface air relative humidity	
R2_l	Surface air relative humidity	
Rbatm	Radiative balance of the atmosphere	W/m2
Rbatm_l	Radiative balance of the atmosphere	W/m2
Rbsur	Radiative balance at the surface	W/m2
Rbsur_l	Radiative balance at the surface	W/m2
Rbsurcs	Clear-sky radiative balance at the surface	W/m2
Rbtop	Radiative balance at TOA	W/m2
Rbtopcs	Clear-sky radiative balance at TOA	W/m2
Sh	Surface sensible heat flux	W/m2
Sh_l	Surface sensible heat flux	W/m2
Slp	Sea level pressure	hPa
Snetsur	Shortwave net at the surface	W/m2
Snetsur_l	Shortwave net at the surface	W/m2
Snetsurcs	Clear-sky shortwave net at the surface	W/m2
Snettop	Shortwave net at TOA	W/m2
Snettop_l	Shortwave net at TOA	W/m2
Snettopcs	Clear-sky shortwave net at TOA	W/m2
So4	Atmospheric concentration of SO4 (sulfate ion)	
Sol	Shortwave in at TOA	W/m2
Swrcrf	Shortwave cloud radiative forcing	W/m2
Tam	Temperature	degC
Tam_l	Temperature	degC
Tant	Antarctic surface air temperature	degC
Tg	Global surface air temperature	degC
Tg_l	Global surface air temperature	degC
Tgrl	Greenland surface air temperature	degC
Tn6090	Surface air temperature between 60-90N	degC
Tnh	NH surface air temperature	degC
Ts6090	Surface air temperature between 60-90S	degC
Tsh	SH surface air temperature	degC
Tskin	Skin temperature	degC
Tskin_l	Skin temperature	degC
Ttrop	Tropopause temperature	K

	Wcon	Water content	
	Wcon_l	Water content	
<b>Cmn.nc</b>			
	Prc	Precipitation	Kg/m2/day
	Rain	Rainfall	Kg/m2/day
	Snow	Snowfall	Kg/m2/day
	Evp	Evaporation	Kg/m2/day
	Runoff	Runoff into the ocean	Kg/m2/day
	Runoff_veg	Runoff into the ocean from vegetated part	Kg/m2/day

	Runoff_ice	Runoff into the ocean from ice sheets	Kg/m2/day
	Calving	Calving into the ocean	Kg/m2/day
	Calving_veg	Calving into the ocean from vegetated part	Kg/m2/day
	Calving_ice	Calving into the ocean from ice sheets	Kg/m2/day
	Bmelt	Basal melt flux into the ocean	Kg/m2/day
	Bmelt_grid	Basal melt flux from grounded ice into the ocean	Kg/m2/day
	Bmelt_flt	Basal melt flux from floating ice into the ocean	Kg/m2/day
	Wind	Surface wind speed	m/s
	Lh	Latent heat flux	W/m2
	Sh	Sensible heat flux	W/m2
	Lwd	Downward longwave radiation at the surface	W/m2
	Lwu	Upward longwave radiation at the surface	W/m2
	Swnet	Net surface shortwave radiation	W/m2
	Lwnet	Net surface longwave radiation	W/m2
	Lsnow	Snowfall latent energy	W/m2
	Ebal_sur	Net surface energy balance	W/m2
	Ebal_surl	Net surface energy balance	W/m2
	Ebal_suro	Net surface energy balance	W/m2
	Tskin	Skin temperature	C
	T2m	Surface air temperature	C
	Q2m	Surface air specific humidity	Kg/kg
	Alb_dir	Direct beam surface albedo	
	Alb_dif	Diffuse radiation surface albedo	
	Mask_ice	Ice sheet model mask on coupler grid	0 to 1
	Mask_smb	Smb model mask on coupler grid	0 to 1
	F_stp	Surface type fractions	0 to 1
	F_ocn	Ocean fraction	0 to 1
	F_lnd	Land fraction	0 to 1
	F_ice	Ice fraction	0 to 1
	Fw_atl	Net Atlantic freshwater (P-E+R) integrated from the North Pole	Sv
<b>Bgc.nc</b>			
3d	flx_inp_Alk	Alkalinity input flux at the surface	Mol m-2 yr-1
	flx_inp_DIC	Dissolved inorganic carbon input flux at the surface	Mol m-2 yr-1
	flx_inp_DOC	Dissolved organic carbon input flux at the surface	Mol m-2 yr-1
	flx_inp_POC	Particulate organic carbon input flux at the surface	Mol m-2 yr-1
	flx_inp_Si	Silicate input flux at the surface	Mol m-2 yr-1
4d	CO2flux	CO2 surface flux (positive into ocean)	Kg C m-2 yr-1
	CO2fxd	CO2 flux down (into the ocean)	Mol C m-2 yr-1
	CO2fxu	CO2 flux up (out of ocean)	Mol C m-2 yr-1
	CaCO3_prod_int	Vertically integrated calcium carbonate production	Mol C m-2 yr-1
	Feflux	Fe surface flux	Mol Fe m-2 yr-1
	N2Oflux	N2O surface flux	Kmol N2 m-2 yr-1

N2fix_int	Vertically integrated N2 fixation	Mol N m-2 yr-1
N2flux	N2 surface flux	Kmol N2 m-2 yr-1
O2flux	O2 surface flux	Mol o2 m-2 yr-1
OPAL_prod_int	Vertically integrated opal production	Mol Si m-2 yr-1
D13Cflux	Delta 13C of air-sea CO2 flux	Permil
Denit_int	Vertically integrated denitrification	Mol N m-2 yr-1
Dmsflux	DMS surface flux	Mol S m-2 yr-1
Exp1000_CaCO3	Calcium carbonate export at 1000m	Mol C m-2 yr-1
Exp1000_POC	Particulate organic carbon export at 1000m	Mol C m-2 yr-1
Exp1000_opal	Opal export at 1000m	Mol Si m-2 yr-1
Exp100_CaCO3	Calcium carbonate export at 100m	Mol C m-2 yr-1
Exp100_POC	Particulate organic carbon export at 100m	Mol C m-2 yr-1
Exp100_opal	Opal export at 100m	Mol Si m-2 yr-1
Exp2000_CaCO3	Calcium carbonate export at 2000m	Mol C m-2 yr-1
Exp2000_POC	Particulate organic carbon export at 2000m	Mol C m-2 yr-1
Exp2000_opal	Opal export at 2000m	Mol Si m-2 yr-1
Flx_sed_CaCO3	CaCO3 flux to sediment	Mol C m-2 yr-1
Flx_sed_OPAL	OPAL flux to sediment	Kmol Si m-2 yr-1
Flx_sed_POC	POC flux to sediment	gC m-2 yr-1
Flx_sed_dust	Dust (clay) flux to sediment	Kmol m-2 yr-1
Frac_aq_gas	Fraction from gas to dissolved CO2	Permil
Frac_dic_gas	Fraction from gas to DIC	Permil
Frac_poc_aq	Fraction from dissolved CO2 to POC	Permil
Kwco2	CO2 exchange coefficient	Kmol m-2 yr-1 ppm-1
Lysocline	Lysocline depth	M
Npp_int	Vertically integrated photosynthesis	gC m-2 yr-1
Npp_int_cya	Vertically integrated photosynthesis by cyanobacteria	gC m-2 yr-1
Pco2	CO2 partial pressure	Ppm
Rain_100	Rain ratio (C[CaCO3]/C[POC]) at 100m	0 to 1
Rain_1000	Rain ratio (C[CaCO3]/C[POC]) at 1000m	0 to 1
Rain_2000	Rain ratio (C[CaCO3]/C[POC]) at 2000m	0 to 1
Sedfluxalk	Sediment flux to ocean alkalinity	Mol m-2 yr-2
Sedfludic	Sediment flux to ocean dissolved inorganic carbon	Mol C m-2 yr-1
SedfluFe	Sediment flux to ocean iron	Mol Fe m-2 yr-1
Sedflun2	Sediment flux to ocean nitrogen	Mol N m-2 yr-1
Sedfluno3	Sediment flux to ocean nitrate	Mol N m-2 yr-1
SedfluO2	Sediment flux to ocean oxygen	Mol O2 m-2 yr-1



	Sedflupo4	Sediment flux to ocean phosphate	Mol P m-2 yr-1
	Sedflusi	Sediment flux to ocean silicate	Mol Si m-2 yr-1
5d	AOU	Apparent oxygen utilization	Mol O2 m-3
	CO3	Dissolved carbonate ion concentration	Mol C/m3
	CaCO3	Calcite	MmolC/m3
	CaCO3_coral	Calcium carbonate production by corals	Kmol C m-3 d-1
	CaCO3_disso	Calcite dissolution	Kmol C m-3 d-1
	CaCO3_prod	Calcite production	Kmol C m-3 d-1
	Chl	Chlorophyll concentration	Mg Chl/m3
	DMS	Dimethylsulfide	Mmol/m3
	DOC	Dissolved organic carbon	Mmol/m3
	Dust	Terrigenous material	g/m3
	Fe	Dissolved iron	Nmol/l
	Fe_lim	Iron limitation of primary production	0 to 1
	Fe_lim_cya	Iron limitation of cyanobacteria growth	0 to 1
	Fe_scav	Iron scavenging rate	Nmol Fe m-3 d-1
	H2S	Hydrogen sulfide	Mmol/l
	I_lim_cya	Light limitation of cyanobacteria growth	
	N2	Dinitrogen	Mmol/m3
	N2O	Nitrous oxide	Mmol/m3
	N2fix	N2 fixation	Kmol N m-3 d-1
	NO3	Nitrate	Mmol/m3
	NO3_lim	Nitrogen limitation of primary production	0 to 1
	NO3_lim_cya	Nitrogen uptake preference factor for cyanobacteria growth	
	O2	oxygen	Mol/m3
	Opal	Opal (BSi)	Mmol Si/m3
	Phy	Phytoplankton	Mmol P/m3
	PO4	Phosphate	Mmol/l
	PO4_lim	Phosphorous limitation of primary production	0 to 1
	PO4_lim_cya	Phosphorous limitation of cyanobacteria growth	
	POC	Particulate organic carbon	Mmol C/m3
	POC_prod	Particulate organic carbon production	Kmol C m-3 d-1
	Si	Silicate	Mmol/3
	TAlk	Total alkalinity	Mmol/l
	TCO2	Total dissolved inorganic C12	Mmol C/l
	TCO213	Dissolved inorganic carbon C13	Mmol C/l
	T_lim_cya	Temperature limitation of cyanobacteria growth	

ZOO	Zooplankton	Mmol P/m3
Bacterial activity	Bacterial activity	Kmol P m-3 d-1
D13CAL	Delta13C of calcite	Permil
D13DIC	Delta13C of dissolved inorganic carbon	Permil
D13DOC	Delta13C of dissolved organic carbon	Permil
D13PHY	Delta13C of phytoplankton	Permil
D13POC	Delta13C of particulate organic carbon	Permil
D13ZOO	Delta13C of zooplankton	Permil
Denit	Denitrification	Kmol N m-3 d-1
Dms_bac	Dms bacterial consumption	Kmol S m-3 d-1
Dms_prod	Dms production	Kmol S m-3 d-1
Dms_uv	Dms UV-light destruction	Kmol S m-3 d-1
Grazing	Zoo grazing	Mol Fe m-3 d-1
Opal_prod	Opal production	Kmol Si m-3 d-1
pH	Sea water pH	
Pho_lim_irr	Light limitation factor	
Pho_lim_nut	Nutrient limitation factor	
Pho_pot	Potential photosynthesis (light and temperature limited)	d-1
Phosy	Photosynthesis	Mol C m-3 d-1
Phosy_cya	Photosynthesis by cyanobacteria	Mol C m-3 d-1
Phy_gr	Phytoplankton growth rate	d-1
Rem_POC_N	Remineralization of POC by nitrogen	Kmol P m-3 d-1
Rem_POC_O2	Remineralization of POC by oxygen	Kmol P m-3 d-1
Rem_POC_S	Remineralization of POC by sulfate	kmolP m-3 d-1
Rem_via_grazer	Remineralization via grazer	Kmol P m-3 d-1
Visco	Sea viscosity	Kg m-2 s-1
Wpoc	POC sinkspeed	m/day

### Bgc\_ts.nc

1d	Alk_avg	Average alkalinity ocean + sediments	Kmol/m3
	Alk_sur	Mean surface ocean alkalinity	Umol/l
	Alk_tot	Total alkalinity ocean + sediments	Pmol/10**3
	C_DOC	Total dissolved organic carbon	GtC
	C_POC	Total particulate organic carbon	GtC
	C_bur	Total carbon of buried sediments	GtC/10**5
	C_bur_calc	Total calcite in buried sediments	GtC/10**5
	C_bur_org	Total organic carbon in buried sediments	GtC/10**4
	C_calc	Total calcite carbon	GtC

C_dic	Total dissolved inorganic carbon	GtC/10**4
C_dic_avg	Average dissolved inorganic carbon concentration	Kmol/m3
C_phy	Total phytoplankton carbon	GtC
C_sed	Total carbon of active sediments	GtC
C_sed_calc	Total calcite in active sediments	GtC
C_sed_org	Total organic carbon in active sediments	GtC
C_tot	Total carbon of ocean + active sediments	GtC/10**4
C_wat	Total carbon of water column including sediment pore water	GtC/10**4
C_zoo	Total zooplankton carbon	GtC
DMS_flux	Global sea-air DMS flux	TgS yr-1
Fe_scav	Total iron scavenging	Gmol Fe yr-1
Fe_sur	Mean surface ocean iron	Nmol/l
Fe_tot	Total iron in ocean	Tmol FeGlobal se
N2O_flux	Global sea-air N2O flux	TgN yr-1
N2_denit	Global denitrification	TgN yr-1
N2_fix	Global N2 fixation	TgN yr-1
NO3_sed	Total nitrate of sediments	Pmol N
NO3_sur	Mean surface ocean nitrate	Umol/l
NO3_tot	Total nitrate of ocean + sediments	Pmol N
NO3_wat	Total nitrate of water column including sediment pore water	Pmol N
PO4_sed	Total phosphate of sediments	Pmol P
PO4_sur	Mean surface ocean phosphate	Umol/L
PO4_tot	Total phosphate of ocean + sediments	Pmol P
PO4_wat	Total phosphate of water column including sediment pore water	Pmol P
POCexpEff100m	POC export efficiency at 100m	/
POCtransEff1000m	POC transfer efficiency at 1000m	/
Si_sed	Total silicate of sediments	Pmol Si
Si_sur	Mean surface ocean silicate	Umol/l
Si_tot	Total silicate of ocean + sediments	Pmol Si
Si_wat	Total silicate of water column including sediment pore water	Pmol Si
Vomz	Volume of oxygen minimum zone (O2<5mmol/m3)	Mln km3
C13flux	Net air-sea C13O2 flux (positive into ocean)	GtC yr-1
Co2flux	Net air-sea CO2 flux (positive into ocean)	GtC yr-1
Co2flux_d	Downward air-sea CO2 flux	GtC yr-1
Co2flux_so	Net air-sea CO2 flux in the Southern Ocean (<45S) (positive into ocean)	Gtc yr-1
Co2flux_u	Upward air-sea CO2 flux	GtC yr-1
Flx_1000m_CaCO3	Global calc export at 1000m	Gtc yr-1

Flx_1000m_POC	Global POC export at 1000m	Gtc yr-1
Flx_1000m_opal	Global opal export at 1000m	GtC yr-1
Flx_100m_CaCO3	Global calc export at 100m	Gtc yr-1
Flx_100m_POC	Global POC export at 100m	Gtc yr-1
Flx_100m_opal	Global opal export at 100m	GtC yr-1
Flx_2000m_CaCO3	Global calc export at 2000m	Gtc yr-1
Flx_2000m_POC	Global POC export at 2000m	Gtc yr-1
Flx_2000m_opal	Global opal export at 2000m	GtC yr-1
Flx_bur_CaCO3	Global CaCO3 burial	Gtc yr-1
Flx_bur_CaCO3_deep	CaCO3 burial in deep ocean (>2000m)	GtC yr-1
Flx_bur_CaCO3_mar	CaCO3 burial on margins (<2000m)	GtC yr-1
Flx_bur_POC	Global POC burial	GtC yr-1
Flx_bur_POC_deep	POC burial in deep ocean (>2000m)	GtC yr-1
Flx_bur_POC_mar	POC burial on margins (<2000 m)	GtC yr-1
Flx_inp_Fe	Total iron input from dust deposition	Gmol Fe yr-1
Flx_inp_alk	Global alkalinity input from weathering	Tmol yr-1
Flx_inp_dic	Global dissolved inorganic carbon input from weathering	GtC yr-1
Flx_inp_doc	Global dissolved organic carbon input from rivers	GtC yr-1
Flx_inp_dust	Global input of dust from deposition	Tmol yr-1
Flx_inp_poc	Global input of POC	
Flx_inp_sil	Global silica input from weathering	Tmol Si yr-1
Flx_sed_CaCO3	Global CaCO3 flux to sediments	GtC yr-1
Flx_sed_POC	Global POC flux to sediments	GtC yr-1
Flx_sed_deep_CaCO3	CaCO3 flux to sediments in the deep ocean (>2000m)	GtC yr-1
Flx_sed_deep_POC	POC flux to sediments in deep ocean (>2000m)	GtC yr-1
Flx_sed_deep_opal	Opal flux to sediments in deep ocean (>2000m)	GtC yr-1
Flx_sed_dust	Global dust flux to sediments	GtC yr-1
Flx_sed_mar_CaCO3	CaCO3 flux to sediments on margins (<2000m)	GtC yr-1
Flx_sed_mar_POC	POC flux to sediments on margins (<2000m)	GtC yr-1
Flx_sed_mar_opal	Opal flux to sediments on margins (<2000m)	GtC yr-1
Flx_sed_net_Alk	Net alkalinity flux to sediments	Tmol yr-1
Flx_sed_net_C	Net carbon flux to sediments	GtC yr-1
Flx_sed_net_NO3	Net nitrate flux to sediments	TgN yr-1
Flx_sed_net_PO4	Net phosphate flux to sediments	Tmol P yr-1
Flx_sed_net_Si	Net silicate flux to sediments	Tmol Si yr-1
Flx_sed_opal	Global opal flux to sediments	Tmol Si yr-1
Npp	Global primary production	GtC yr-1

Npp_cya		
Prod_CaCO3	Global CaCO3 production	GtC yr-1
Prod_CaCO3_coral		
Prod_opal	Global opal production	Tmol Si yr-1
Rain1000m	Rain ratio of export at 1000m	/
Rain100m	Rain ratio of export at 100m	/
Rain2000m	Rain ratio of export at 2000m	/
Reflux_sed_alk	Global alkalinity reflux from sediments	Tmol yr-1
Reflux_sed_dic	Global DIC reflux from sediments	GtC yr-1
Reflux_sed_fe	Global iron reflux from sediments	Gmol Fe yr-1
Reflux_sed_n2	Global N2 reflux from sediments	TgN yr-1
Reflux_sed_no3	Global NO3 reflux from sediments	TgN yr-1
Reflux_sed_o2	Global O2 reflux from sediments	Tmol O2 yr-1
Reflux_sed_po4	Global PO4 reflux from sediments	Tmol P yr-1
Reflux_sed_si	Global silicate reflux from sediments	Tmol Si yr-1
Sed_denit	Sediment denitrification	TgN yr-1
Sed_dis_calc	Sediment CaCO3 dissolution	GtC yr-1
Sed_dis_opal	Sediment opal dissolution	Tmol Si yr-1
Sed_rox	Sediment aerobic remineralization of organic carbon	GtC yr-1
Sed_sred	Sediment sulfate reduction	GtC yr-1
Zoo_graz	Zooplankton grazing	GtC yr-1
<b>Co2_ts.nc</b>		
co2	atmospheric co2 concentration	ppm
Catm	atmospheric carbon	GtC
C13atm	atmospheric carbon 13	GtC
C14atm	atmospheric carbon 14	GtC
d13C	atmospheric delta 13 C	permil
D14C	atmospheric Delta 14 C	permil
dCocn_dt	net ocean carbon flux to atmosphere	GtC/yr
dCocn_cum	cumulative net ocean carbon flux to atmosphere	GtC
dC13ocn_dt	net ocean carbon 13 flux to atmosphere	GtC/yr
dC14ocn_dt	net ocean carbon 14 flux to atmosphere	GtC/yr
d13C_ocn	delta 13 C of ocean-atmosphere flux	permil
dClnd_dt	net land carbon flux to atmosphere	GtC/yr
dClnd_cum	cumulative net land carbon flux to atmosphere	GtC
dC13lnd_dt	net land carbon 13 flux to atmosphere	GtC/yr
dC14lnd_dt	net land carbon 14 flux to atmosphere	GtC/yr

	d13C_Ind	delta 13 C of land-atmosphere flux	permil
	dCemis_dt	carbon emissions to atmosphere	GtC/yr
	dCemis_cum	cumulative carbon emissions to atmosphere	GtC
	dCemis_extra_dt	carbon emissions to atmosphere from additional feedbacks	GtC/yr
	dCemis_extra_cum	cumulative carbon emissions to atmosphere from additional feedbacks	GtC
	dCweath_dt	CO2 consumption by weathering	GtC/yr
	dCweath_cum	cumulative CO2 consumption by weathering	GtC
	dC13weath_dt	CO2 13 consumption by weathering	GtC
	dC14weath_dt	CO2 14 consumption by weathering	GtC
	dCvolc_dt	volcanic CO2 degassing	GtC/yr
	dCvolc_cum	cumulative volcanic CO2 degassing	GtC
	dC13volc_dt	volcanic CO2 13 degassing	GtC/yr
	dC14prod_dt	C14 production rate	GtC/yr
	dCH4_dt	carbon flux to atmosphere due to oxidation of anthropogenic CH4	GtC/yr

#### Ch4\_ts.nc

1d	Ch4	Atmospheric CH4 concentration	Ppb
	CH4ocn_dt	Ocean methane flux to atmosphere	TgCH4/yr
	CH4Ind_dt	Natural land methane flux to atmosphere	TgCH4/yr
	CH4emis_dt	Anthropogenic methane emissions to atmosphere	TgCH4/yr
	CH4ox_dt	Methane oxidation in the atmosphere	TgCH4/yr
	tau	Methane lifetime in the atmosphere	Years

#### Cmn\_ts.nc

1d	Bmelt	Globally integrated annual basal melt into the ocean	(10 <sup>15</sup> kg/yr)/10 <sup>-9</sup>
	Bmelt_alt	Annual ice sheet basal melt into the Atlantic ocean	Sv
	Bmelt_ftl	Globally integrated annual basal melt from floating ice into the ocean	(10 <sup>15</sup> kg/yr)
	Bmelt_grd	Globally integrated annual basal melt from grounded ice into the ocean	(10 <sup>15</sup> kg/yr)
	Bmelt_ind		
	Bmelt_pac	Annual ice sheet basal melt into the Pacific ocean	Sv
	Bmelt_so		
	Calving	Globally integrated annual calving into the ocean	(10 <sup>15</sup> kg/yr)
	Calving_alt	Annual calving into the Atlantic ocean	Sv

	Calving_ice	Globally integrated annual calving into the ocean from ice sheets	(10 <sup>15</sup> /yr)
	Calving_ind		
	Calving_pac	Annual calving into the Pacific ocean	Sv
	Calving_so	Annual calving into the Southern ocean	Sv
	Calving_veg	Globally integrated annual calving into the ocean from vegetated part	(10 <sup>15</sup> kg/yr)

Ebal_sur	Global mean annual net surface energy balance	W/m2
Evp	Globally integrated annual evapotranspiration	(10 <sup>15</sup> kg/yr)
Evp_atl	Annual evaporation from the Atlantic ocean	Sv
Evp_ind	Annual evaporation from the Indian ocean	Sv
Evp_pac	Annual evaporation from the Pacific ocean	Sv
Evp_so	Annual evaporation from the Southern ocean	Sv
Fw_atl	Annual freshwater flux into the Atlantic ocean	Sv
Fw_ind	Annual freshwater flux into the Indian ocean	Sv
Fw_natl	Annual freshwater flux into the North Atlantic ocean	Sv
Fw_pac	Annual freshwater flux into the Pacific ocean	Sv
Fw_so	Annual freshwater flux into the Southern ocean	Sv
Lh	Global mean annual surface latent heat flux	W/m2
Lsnow	Global mean annual latent energy of snowfall	W/m2
Lwd	Global mean annual downward longwave radiation at the surface	W/m2
Lwnet	Global mean annual net surface longwave radiation	W/m2
Lwu	Global mean annual upward longwave radiation at the surface	W/m2
Prc	Globally integrated annual precipitation	(10 <sup>15</sup> kg/yr)
Prc_atl	Annual precipitation into the Atlantic ocean	Sv
Prc_ind	Annual precipitation into the Indian ocean	Sv
Prc_pac	Annual precipitation into the Pacific ocean	Sv
Prc_so	Annual precipitation into the Southern ocean	Sv
Runoff	Globally integrated annual runoff into the ocean	(10 <sup>15</sup> kg/yr)
Runoff_atl	Annual runoff into the Atlantic ocean	Sv
Runoff_ice	Globally integrated annual runoff into the ocean from ice sheets	(10 <sup>15</sup> kg/yr)
Runoff_ind	Annual runoff into the Indian ocean	Sv
Runoff_pac	Annual runoff into the Pacific ocean	Sv
Runoff_so	Annual runoff into the Southern ocean	Sv
Runoff_veg	Globally integrated annual runoff into the ocean from the vegetated part	(10 <sup>15</sup> kg/yr)
Sh	Global mean annual surface sensible heat flux	W/m2
Swnet	Global mean annual net surface shortwave radiation	W/m2
T2m	Global mean annual surface air temperature	Degree C (?)

### Geo\_hires.nc

z_topo	topography	M
z_topo_fill	Filled topography	m
Z_topo_fil	Filtered topography	M
Z_bed	Bedrock elevation	M
Dz_bed	Difference between bedrock elevation and relaxed bedrock elevation	M
Z_bed_ref	Present day reference bedrock elevation	M
Z_bed_rel	Relaxed ice-free bedrock elevation	M
Z_sur	Surface elevation	M
H_ice	Ice sheet thickness	M
Mask	Mask	Ice/land/ocean
Rsl	Relative sea level	M
Mask_lake	Lakes mask	

	Mask_lake_plot	Potential lakes mask	
	Z_lake	Lake surface elevation	M
	I_runoff	i-Index of runoff destination cell	
	J_runoff	j-Index of runoff destination cell	
	Map_runoff	Runoff mapping to ocean/lakes	
	Flow_acc	River flow accumulation, upstream drainage area	mIn km2
	Drain_basin	Drainage basins to oceans	
<b>Geo.nc</b>			
	F_ocn	Ocean fraction, including floating ice	0 to 1
	F_ocn2	Ocean fraction, excluding floating ice	0 to 1
	F_lnd	Land fraction	0 to 1
	F_ice	Ice fraction	0 to 1
	F_ice_grid	Grounded ice fraction	0 to 1
	F_iceflt	Floating ice fraction	
	F_lake	Lake fraction	
	Z_bed	Mean bedrock elevation	M
	Z_sur	Grid cell mean surface elevation	M
	Z_ice	Mean ice elevation	M
	Z_lake	Mean lake elevation	M
	Z_veg	Mean elevation of ice-free land	M
	Z_sur_std	Standard deviation of surface elevation	M
	Z_sur_smooth_std	Standard deviation of surface elevation	M
	Z_veg_std	Standard deviation of surface elevation, ice-free land only	M
	Z_sur_lnd_std	Standard deviation of surface elevation, ice-free land only	M
	Z_bed_lnd_std	Standard deviation of surface elevation, ice-free land only	M
	I_runoff	I index of runoff destination	
	J_runoff	J index of runoff destination	
	I_runoff_veg	I index if runoff destination from ice-free land	
	J_runoff_veg	J index of runoff destination from ice-free land	
	I_runoff_ice	I index of runoff destination from ice-sheet	
	J_runoff_ice	J index of runoff destination from ice-sheet	
	F_drain_veg	Drainage fraction to ocean from ice-free land	0 to 1
	F_drain_ice	Drainage fraction to ocean from ice-sheets	0 to 1
	Drain_basin	Drainage basins to ocean	
	ldivide_pac_atl	I index of continental divide between Pacific and Atlantic	/
	ldivide_atl_indpac	I index of continental divide between Atlantic and Pacific	/
	Mask_coast	Coast mask	0 to 1
	I_coast_nbr	I index of neighbours of coastal cells	
	J_coast_nbr	J index of neighbours of coastal cells	
	Q_geo	Geothermal heat flux	W/m2
<b>Geo_ts.nc</b>			
1d	Sea_level	Global mean relative sea level	M
	Aocn	Total ocean surface area	MIn km2
	Aveg	Total ice-free lake-free land surface area	MIn km2



	Aice	Total ice sheet surface area	Mln km2
	Alake	Total lake surface area	Mln km2
<b>Ice_NH-40KM.nc</b>			
1d	Eta	Y-coordinate	m/10**6
	Sigma_level_c	Sigma level in cold ice	0 to 1
	Sigma_level_r	Sigma level in lithosphere	0 to 1

	Sigma_level_t	Sigma level in temperate ice	0 to 1
	Xi	X-coordinate	m/10**6
2d	Lambda		
	Phi		
3d	H	Thickness of ice	m
	H_calv	Calvin threshold	M
	H_cold	Thickness of the cold ice layer	M
	H_eff	Effective thickness at the shelf ice front	
	H_flow	Thickness of ice after dynamics (without source term)	M
	H_sed	Sediment thickness	M
	H_temp	Thickness of the temperate ice layer	M
	H_w	Thickness of the water column under the ice base	M
	Q_b	Basa; melting rate + water drainage from the temperate layer	m/yr
	Q_b_apl	Applied basal melting rate + water drainage from the temperate layer	m/yr
	Q_bm	Basal melting rate	m/yr
	Q_tld	Water drainage from the temperate layer	m/yr
	Accum	Accumulation flux	m/yr
	Accum_apl	Applied accumulation flux	m/yr
	Am_perp	Volume flux across the z=zm interface	m/yr
	As_perp	Surface mass balance	m/yr
	As_perp_apl	Applied surface mass balance	m/yr
	Beta_drag	Basal drag parameter for shelfy stream	
	C_slide	Basal sliding coefficient	m/(a*Pa^(p-q))
	Calving	Calving flux	m/yr
	Calving_apl	Applied calving flux	m/yr
	Cos_grad_tc	Cosine of angle between surface gradient and cst dist gradient	
	Cst_dist	Coastal distance	Km
	dH_c_dt	Rate of change of the thickness of the upper (kc) ice layer	m/yr
	dH_dt	Rate of change of the ice thickness	m/yr
	dH_t_dt	Rate of change of the thickness of the lower (kt) ice layer	m/yr
	Dis_perp	Applied calving flux from the discharge parameterization	m/yr
	Dzb_dt	Rate of change of the topography of the ice base	m/yr
	Dzl_dt	Rate of change of the topography of the lithosphere surface	m/yr
	Dzm_dt	Rate of change of the topography of the z=zm interface	m/yr
	Dzs_dt	Rate of change of the topography of the free surface	m/yr
	Flag_shelfy_stream	Shelfy stream flag	0 to 1
	Flag_shelfy_stream_x	Shelfy stream flag in x-direction	0 to 1

Flag_shelfy_stream_y	Shelfy stream flag in y-direction	0 to 1
Kc_cts	Grid index of the CTS position	
Mask_ablation_type	Mask indicating ablation type	
Mask_mar	Margina ring mask	0 to 1
Mask_sed	Sediment mask	0 to 1
Maske	Ice-land-sea mask	0 to 3
Maske_old	Ice-land-sea mask (old)	0 to 3
Mb_source	Total mass balance	m/yr
Mb_source_apl	Applied total mass balance	m/yr
N_cts	Mask for polythermal conditions	
P_b	Basal pressure	Pa
P_b_w	Basal water pressure	Pa
Q_geo	Geothermal heat flux	W/m2

Q_gl_g	Horizontal volume flux across the grounding line	M2/yr
Qx	Horizontal volume flux qx	M2/yr
Qy	Horizontal volume flux qy	M2/yr
Ratio_sl_x	Ratio of basal to surface velocity (slip ratio) in x-direction	
Ratio_sl_y	Ratio of basal to surface velocity (slip ratio) in y-direction	
Runoff	Runoff flux	m/yr
Runoff_apl	Applied runoff flux	m/yr
Tau_b_drag	Basal drag	Pa
Tau_b_driving	Driving stress	Pa
Temp_b	Temperature at the ice base	degC
Temp_g	Ground temperature	degC
Temp_s	Surface temperature	degC
Temph_b	Temperature at the ice base relative to the pressure melting point	degC
Vh_b	Horizontal velocity vh at the ice base	m/yr
Vh_m	Vertical mean of horizontal velocity vh	m/yr
Vh_m_sia	Vertical mean of SIA horizontal velocity	m/yr
Vh_m_ssa	Vertical mean of SSA horizontal velocity	m/yr
Vh_s	Horizontal velocity vh at the ice surface	m/yr
Vis_int_g	Depth-integrated viscosity	Pa s m
Vx_b_g	Horizontal velocity vx at the ice base	m/yr
Vx_m_g	Vertical mean of horizontal velocity vx	m/yr
Vx_m_sia	X depth-averaged horizontal velocity from SIA	m/yr
Vx_m_ssa	X depth-averaged horizontal velocity from SSA	m/yr
Vx_s_g	Horizontal velocity vx at the ice surface	m/yr
Vy_m_g	Vertical mean of horizontal velocity vy	m/yr
Vy_b_g	Horizontal velocity vy at the ice base	m/yr
Vy_m_sia	Y depth-averaged horizontal velocity from SIA	m/yr
Vy_m_ssa	Y depth-averaged horizontal velocity from SSA	m/yr
Vy_s_g	Horizontal velocity vy at the ice surface	m/yr
Vz_b	Vertical velocity vz at the ice base	m/yr
Vz_s	Vertical velocity vz at the ice surface	m/yr

	Weigh_ssta_sia_x	Weight of SStA vs SIA in z-direction	0 to 1
	Weigh_ssta_sia_y	Weight of SStA vs SIA in y-direction	0 to 1
	Z_sl	Sea level	
	Zb	Topography of the ice-base	M
	Zl	Topography of the lithosphere surface	M
	Zl0	Topography of the isostatically relaxed lithosphere surface	M
	Zl_fil	Topography of the filtered lithosphere surface	M
	Zl_std	Sub-grid standard deviation of topography of the lithosphere surface	M
	Zm	Topography of the z=zm interface	M
	Zs	Topography of the free surface	m

#### Ice\_NH-40KM\_ts.nc

1d	V_tot	Total ice volume	Mln km3
	V_sle	Ice volume in SLE	M sle
	V_temp	Volume of temperate ice	Mln km3
	V_grd	Grounded ice volume	Mln km3
	Vflt	Floating ice volume	Mln km3
	V_af	Ice volume above floatation	Mln km3
	dV_dt	Rate of ice volume change	(m3/yr)/10**12
	A_tot	Total ice area	Mln km2
	A_grd	Grounded ice area	Mln km2

	Aflt	Floating ice area	Mln km2
	A_temp	Area covered by temperate ice	Mln km2
	Mb_tot	Total mass valance	(Gt/a)/10**3
	Smb_tot	Total surface mass balance	(Gt/a)/10**3
	Bmb_tot	Total basal mass balance	(Gt/a)
	Bmb_gr_tot	Total basal mass balance of grounded ice	(Gt/a)
	Bmb_fl_tot	Total basal mass balance of floating ice	(Gt/a)
	Runoff_tot	Total runoff	(Gt/a)/10**3
	Calv_tot	Total calving	(Gt/a)/10**3
	Disc_lsc	Ice discharge from ice flow, large scale	(Gt/a)/10**3
	Disc_ssc		
	Q_b	Basal melting rate	(Gt/a)
	Q_temp	Drainage rate from the temperate ice layer	(Gt/a)
	Mb_resid	Residual of the total mass balance	(Gt/a)
	Mbp	Mass balance partition	
	H_max	Maximum ice thickness	m/10**3
	H_t_max	Maximum thickness of temperate ice	M
	Zs_max	Maximum surface elevation	m/10**3
	Vs_max	Maximum surface speed	(m/yr)/10**3
	Tbh_max		

#### Imo\_NH-40KM.nc

2d	Phi		
	Lambda		
	T_imo	Water temperature used for basal melt	degC

	S_imo	Water salinity used for basal melt	Psu
	T_freeze	Freezing temperature at the ice shelf base	degC
	Imo	Basal mass melt of floating ice	Kg/m2/s
	T_imo_mask	Water temperature used for basal melt, masked with ice shelf mask	degC
	S_imo_mask	Water salinity used for basal melt, masked with ice shelf mask	psu
	T_freeze_mask	Freezing temperature at the ice shelf base, masked with ice shelf mask	degC
	Imo_mask	Basal mass melt of floating ice, masked with ice shelf mask	Kg/m2/s
	T_disc	Water temperature used for small-scale basal melt in ice sheet model	degC
	S_disc	Water salinity used for small-scale basal melt in ice sheet model	Psu
	Mask_ocn_lake	Ocean/lake mask	0 to 1
	Mask_ice_shelf	Ice mask	0 to 1
	Zb	Elevation of the ice base relative to sea level	M
	Zb_mask	Elevation of ice base relative to sea level, masked with ice shelf mask	M
	Imo_ann	Annual basal melt of floating ice	m/s
	Imo_ann_mask	Annual basal melt of floating ice, masked with ice shelf mask	m/a

#### Imo\_NH-40KM\_ts.nc

1d	imo	Integrated floating ice basal melt of ice sheets	(Gt/a)
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#### Lnd\_carb.nc

3d	D14C_veg_g	D14 vegetation carbon	permil
	Acroh	Acrotelm thickness	M
	Bare	Bare soil fraction of icefree area	0 to 1
	Catoh	Catotelm thickness	m
	D13C_veg_g	D13C vegetation carbon	Permil
	dCpeatdt	Peat carbon accumulation rate	gC/m2/yr

	Doc_export	Dissolved organic output export through rivers	kgC/m2/yr
	Fpeat	Peatland fraction	0 to 1
	Fpeatpot	Potential peatland fraction	0 to 1
	Poc_export	Particulate organic output export through rivers	kgC/m2/yr
	Soilc_g	Soil carbon	kgC/m2
	Vegc_g	Vegetation carbon	kgC/m2
	Wealth_carb	Carbonate weathering	Mol C/m2/yr
	Wealth_sil	Silicate weathering	Mol C/m2/yr
4d	C13flx_atm_lnd	Net land carbon 13 flux	kgC/m2/yr
	C14flx_atm_lnd	Net land carbon 14 flux	kgC/m2/yr
	Cflx_atm_lnd	Net land carbon flux	kgC/m2/yr
	D14C_soilc	D14C soil carbon	permil
	D14C_veg	D14C vegetation carbon	Permil
	Aresp_g	Autotrophic respiration	kgC/m2/yr
	Ch4	Methane emissions	gCH4/m2 gridcell/yr
	Ch4lake	Methane emissions from lakes	gCH4/m2 gridcell/yr

	Ch4peat	Methane emissions from peatlands	gCH4/m2 gridcell/yr
	Ch4shelf	Methane emissions from ocean shelf	gCH4/m2 gridcell/yr
	Ch4wet	Methane emissions from wetlands	gCH4/m2 gridcell/yr
	D13C_soilc	D13C soil carbon	Permil
	D13C_veg	D13C vegetation carbon	Permil
	Disc_g	Discrimination	Permil
	Gamma_dist	Disturbance rate	Years
	Gamma_luc	Disturbance rateform land use change	Years
	Gcan_g	Canopy conductance	m/s
	Gpp_g	Gross primary productivity	kgC/m2/yr
	Lai_g	Leaf area index	M2/m2
	Lambda	NPP partitioning factor	0 to 1
	Lithology	Lithology	0 to 1
	Npp_g	Net primary productivity	kgC/m2/yr
	Pfts	Pft fraction of icefree area	
	Sai	Stem area index	M2/m2
	Seeds	Seed fraction	
	Soilc	Soil carbon	kgC/m2
	Sresp_g	Soil respiration	kgC/m2/yr
	Veg_h	Vegetation height	M
	Vegc	Vegetation carbon	kgC/m2
5d	D14C_litter_prof	D14C profile of litter input into the soil	Permil
	D14C_soilc_prof	D14C soil carbon profile	Permil
	Aresp	Autotrophic respiration	kgC/m2/yr
	D13C_litter_prof	D13C profile of litter input into the soil	Permil
	D13C_soilc_prof	D13C soil carbon profile	Permil
	Disc	Discrimination during photosynthesis	Permil
	Fastc_prof	Fast soil carbon	kgC/m3
	Gcan	Canopy conductance	m/s
	Gpp	Gross primary productivity	kgC/m2/yr

	Lai	Leaf area index	M2/m2
	Litter	Litterfall	kgC/m2/yr
	Litter_prof	Profile of litter input into the soil	kgC/m2/yr
	Litterc_prof	Litter carbon	kgC/m3
	Npp	Net primary productivity	kgC/m2/yr
	Slowc_prof	Slow soil carbon	kgC/m3
	Soilc_prof	Total soil carbon	kgC/m3
	Sresp	Soil respiration	kgC/m2/yr
	Wue	Intrinsic water use efficiency	Micro mol/mol
	Xi	Ratio of leaf internal to ambient partial pressure of CO2	0 to 1
	<b>Lnd_lake.nc</b>		
	T_lake	Lake temperature	K

	Lambda_lake	Lake thermal conductivity	W/m/K
	F_i_lake	Frozen lake water fraction	0 to 1
	F_lake_ice	Ice fraction over lake	0 to 1
	Lake_bal	Lake surface water balance	Kg/m2/day
	H_lake_conv	Convection depth in lake	M
	H_lake_mix	Mixed layer depth in lake	M
	H_lake	Lake depth	M

### Lnd\_soil.nc

	Tsoil	Soil temperature	K
	Tice	Ice temperature	K
	Tsublake	Soil temperature below lake	K
	Thetaw	Soil liquid water content	M3/m3
	Thetai	Soil frozen water content	M3/m3
	Theta	Total soil water content	M3/m3
	Thetas	Soil porosity	M3/m3
	Fthetas	Fraction of porosity filled with water	0 to 1

### Lnd\_soil\_par.nc

	Lambda_if	Heat conductivity	W/m/K
	Cap_if	Heat capacity	J/m3/K
	Lambda_i	Heat conductivity of ice	W/m/K
	Cap_i	Heat capacity of ice	J/m3/K
	Kappa	Hydraulic conductivity	Kg/m2/day
	Ksat	Hydraulic conductivity	Kg/m2/day
	Psisat	Hydraulic conductivity	Kg/m2/day
	B	Hydraulic conductivity	Kg/m2/day
	Poro	Soil porosity	
	Fsoc	Soil organic carbon fraction	0 to 1
	Psi	Soil matric potential	M
	Ftemp	Temperature limitation factor for soil respiration	
	Fmoist	Moisture limitation factor for soil respiration	0 to 1
	Fdepth	Depth factor for soil respiration	0 to 1

### Lnd\_surf.nc

3d	Alt	Active layer thickness	M
	Fland	Land fraction	0 to 1
	Fveg	Vegetation fraction	0 to 1
	Fwetmax	Maximum monthly wetland extent	m
4d	Cd_g	Drag coefficient	
	Ri_g	Bulk Richardson number	

	Alb_dif_g	Surface diffuse albedo	
	Alb_dir_g	Surface albedo	
	Alb_g	Surface albedo	
	Dust_dep	Total dust deposition	g/m2/mon
	Dust_e	Total dust emission	g/m2/mon
	Dust_e_d	Dust emission from desert	g/m2/mon

	Dust_e_g	Dust emission from grassland	g/m2/mon
	Dust_e_s	Dust emission from shrubland	g/m2/mon
	Ecan_g	Canopy evaporation	Kg/m2/day
	Esur_g	Surface evaporation	Kg/m2/day
	Etot_g	Evapotranspiration	Kg/m2/day
	Flx_melt_g	Heat flux going through snowmelt	W/m2
	Fsurf	Surface type fractions	0 to 1
	Fwet	Saturated fraction	
	G_g	Ground heat flux	W/m2
	Inf	Infiltration	Kg/m2/day
	Le_g	Latent heat flux	W/m2
	Lwnet_g	Net longwave radiation at the surface	W/m2
	Ra_g	Aerodynamic resistance	s/m
	Rag_g	Aerodynamic resistance below canopy	s/m
	Rs_g	Surface resistance	s/m
	Sh_g	Sensible heat flux	W/m2
	Swnet_g	Net shortwave radiation at the surface	W/m2
	Tlake	Top layer lake temperature	K
	Trans_g	Transpiration	Kg/m2/day
	Tskin_amp_g	Amplitude of diurnal cycle of skin temperature	K
	Tskin_g	Skin temperature	K
	Vpd	Vapor pressure deficit	Pa
	Wtab	Water table depth	M
5d	Cd	Drag coefficient	
	Ri	Bulk Richardson number	
	Alb	Surface albedo	
	Alb_dif	Surface diffuse albedo	
	Alb_dir	Surface direct beam albedo	
	Albsnw	Snow albedo	
	Calving	Calving	Kg/m2/day weq
	Drain	Drainage	Kg/m2/day
	Dust_con	Dust concentration in snow	Mg/kg
	Ecan	Evaporation from canopy	Kg/m2/day
	Esur	Evaporation from soil	Kg/m2/day
	Etot	Evapotranspiration	Kg/m2/day
	Fcansn	Fraction of canopy covered by snow	0 to 1
	Flx_melt	Heat flux going into snowmelt	W/m2
	G	Ground heat flux	W/m2
	Hsnow	Snow thickness	M
	Icemelt	Icemelt	Kg/m2/day
	Le	Latent heat flux	W/m2
	Lwnet	Net longwave radiation at the surface	W/m2
	Ra	Aerodynamic resistance	s/m
	Rag	Aerodynamic resistance below canopy	s/m
	Rs	Surface resistance	s/m

	Rsursub	Ratio surface runoff to drainage	Kg/m2/day
	Runoff	Total runoff (surface runoff + drainage)	Kg/m2/day
	Runsurr	Surface runoff	Kg/m2/day
	Sh	Sensible heat flux	W/m2
	Snow_grain	Snow grain size	0 to 1000 micro m
	Snowmelt	Snowmelt	Kg/m2/day
	Swe	Snow water equivalent	Kg/m2
	Swe_max	Seasonal maximum snow water equivalent	Kg/m2
	Swnet	Net shortwave radiation at the surface	W/m2
	Trans	Transpiration from vegetation	Kg/m2/day
	Tskin	Skin temperature	K
	Tskin_amp	Amplitude of diurnal cycle of skin temperature	K
	Tsnow	Snow layer temperature	K
<b>Lnd_ts.nc</b>			
1d	Acrop	Crop area?	
	Adesert	Desert area	Mln km^2
	Aforest	Forest area	Mln km^2
	Agrass	Grass area	Mln km^2
	Aice	Ice area	Mln km^2
	Ainund	Inundated area excluding peatlands	Mln km^2
	Alake	Global lake area	Mln km^2
	Aland	Global land area	Mln km^2
	Apasture		
	Apeat	Peatland area	Mln km^2
	Aperm	Permafrost area	Mln km^2
	Ashelf	Global shelf area	Mln km^2
	Ashrub	Shrub area	Mln km^2
	Aveg	Global vegetated area	Mln km^2
	Awet	Wetland area	Mln km^2
	Awetestrop	Extratropical wetland area	Mln km^2
	Awettrop	Tropical wetland area	Mln km^2
	C13flx_atm_Ind	Net atmosphere-land carbon 13 flux	(PgC/yr)
	C14flx_atm_Ind	Net atmosphere-land carbon 14 flux	(PgC/yr)/10**-12
	Cflx_atm_Ind	Net atmosphere-land carbon flux	(PgC/yr)
	Cflx_burial		
	Cice	Carbon below ice sheets	PgC
	Cice1m	Top meter carbon below ice sheets	PgC
	Cice3m	Top 3 meters carbon below ice sheets	PgC
	Cinert	Inert land carbon (frozen soils and below ice sheets)	PgC
	Clake	Carbon below lake water	PgC
	Clake1m	Top meter carbon below lake water	PgC
	Clake3m	Top 3 meters carbon below lake water	PgC



Cland	Total land carbon	PgC
Cmin	Mineral soil carbon	PgC
Cmin1m	Top meter mineral soil carbon	PgC
Cmin3m	Top 3 meters mineral soil carbon	PgC
Cpeat	Carbon in peat	PgC
Cpeat1m	Top meter carbon in peat	PgC
Cpeat3m	Top 3 meters carbon in peat	PgC

Cperm	Carbon in permafrost area	PgC
Cperm1m	Top meter carbon in permafrost area	PgC
Cperm3m	Top 3 meters carbon in permafrost area	PgC
Cshelf	Carbon below ocean shelf water	PgC
Cshelf1m	Top meter carbon below ocean shelf water	PgC
Cshelf3m	Top 3 meters carbon below ocean shelf water	PgC
Csoil	Total soil carbon	PgC
Csoil1m	Top meter soil carbon	PgC
Csoil3m	Top 3 meters soil carbon	PgC
Cveg	Vegetation carbon	PgC
Vsnow	Total snow volume	10 <sup>12</sup> m <sup>3</sup>
Calving	Calving	10 <sup>15</sup> kg/yr
Ch4	Methane emissions	TgCH <sub>4</sub> /yr
Ch4extrop	Extratropical methane emissions	TgCH <sub>4</sub> /yr
Ch4lake	Lake methane emissions?	
Ch4shelf	Ocean shelf methane emissions?	
Ch4trop	Tropical methane emissions	TgCH <sub>4</sub> /yr
Co2	Atmospheric CO <sub>2</sub>	Ppm
D13Cflx_burial		
D13ch4	D13C of methane emissions	Permil
Doc_export		
Drain	Drainage	10 <sup>15</sup> kg/yr
Dust_e	Total dust emission	Tg/yr
Esur	Surface evaporation	10 <sup>15</sup> kg/yr
Evp	Evapotranspiration	10 <sup>15</sup> kg/yr
Gpp	Gross primary productivity	PgC/yr
Npp	Net primary productivity	PgC/yr
Poc_export		
Prc	Precipitation	10 <sup>15</sup> kg/yr
Runoff	Total runoff (surface runoff + drainage)	10 <sup>15</sup> kg/yr
Runsrf	Surface runoff	10 <sup>15</sup> kg/yr
Sresp	Soil respiration	PgC/yr
Temp	Land temperature	degC
Trans	Transpiration	10 <sup>15</sup> kg/yr
Wealth_carb	Carbonate weathering	Tmol C/yr
Wealth_loess	Loess carbonate weathering	Tmol C/yr
Wealth_sil	Silicate weathering	Tmol C/yr

2d	Apfts	PFT area	Mln km^2
<b>Ocn.nc</b>			
3d	Bathy	Bathymetry	M
	Drag	Drag	S^-1
	Drag_bcl	Drag	S^-1
	F_ocn	Surface ocean fraction	0 to 1
	K1	Index of first (bottom) layer	1 to 99
	Map_isles	Island map	0 to 3
	Mask_ocn	Surface ocean mask	0 to 1
	Topo	Topography	M
4d	Bmelt	Basal melt freshwater flux to ocean	Kg/m2/day
	Calving	Calving to ocean	Kg/m2/day
	Dconv	Maximum depth of convection	M
	Dven	Surface water ventilation depth	M

	Fayti	Vertically integrated northward advective heat transport	W
	Fdyti	Vertically integrated northward diffusive heat transport	W
	Flx	Net ocean heat flux	W/m2
	Fw	Net ocean freshwater flux	Kg/m2/day
	Fwa	Atlantic ocean poleward freshwater transport	Sv
	Fwp	Indo-Pacific ocean poleward freshwater transport	Sv
	Fwt	Global ocean poleward freshwater transport	Sv
	Hfa	Atlantic ocean poleward heat transport	PW
	Hfp	Indo-Pacific ocean poleward heat transport	PW
	Hft	Global ocean poleward heat transport	PW
	Ke_tau	Kinetic energy input into the ocean by wind stress	mW/m2
	Kven	Maximum integer surface water ventilation	PW
	Map_edge	Island edges	0 to 1
	Mld	Mixed layer depth from mixed layer scheme	M
	Mldst	Mixed layer depth from sigma-t criterion	M
	Nconv	Number of mixed layers	0 to n
	Opsi	Global overturning circulation	Sv
	Opsi_a	Atlantic overturning circulation	Sv
	Opsi_p	Pacific overturning circulation	Sv
	P_e	Net ocean P-E flux	Kg/m2/day
	Psi	Barotropic streamfunction	Sv
	Rho_atl	Zonal mean Atlantic in-situ density	Kg/m3
	Rho_ind	Zonal mean Indian ocean in-situ density	Kg/m3
	Rho_pac	Zonal mean Pacific in-situ density	Kg/m3
	Rho_so	Zonal mean Southern Ocean in-situ density	
	Runoff	Runoff to ocean	Kg/m2/day
	S_atl	Zonal mean Atlantic salinity	Psu
	S_ind	Zonal mean Indian ocean salinity	Psu
	S_pac	Zonal mean Pacific salinity	Psu
	S_so	Zonal mean Southern Ocean salinity	Psu

	Ssh	Elevation of the free surface	M
	T_atl	Zonal mean Atlantic potential temperature	C
	T_ind	Zonal mean Indian ocean potential temperature	C
	T_pac	Zonal mean Pacific potential temperature	C
	T_so	Zonal mean Southern ocean potential temperature	C
	Taux	Zonal wind/sea ice stress	N/m2
	Tauy	Meridional wind/sea ice stress	N/m2
	Ub	Barotropic zonal velocity	m/s
	Ubar_jbar	Barotropic zonal velocity	m/s
	Ubar_wind	Barotropic zonal velocity	m/s
	Vb	Barotropic meridional velocity	m/s
	Vsf	Virtual salinity flux	Kg/m2/day
5d	Bp	Barotropic zonal velocity	m/s
	Diffdia	Diapycnal diffusivity	M2/s
	Drho_dx	X density gradient	Kg/m4
	Drho_dy	Y density gradient	Kg/m4
	Drho_dz	Z density gradient	Kg/m4
	Fdx	Zonal diffusive tracer volume flux	M3*K
	Fdy	Meridional diffusive tracer volume flux	M3*K
	Fdz	Vertical diffusive tracer volume flux	M3*K
	Rho	In-situ density	Kg/m3

	S	Salinity	psu
	Slope_x	X isopycnal slope	m/m
	Slope_y	Y isopycnal slope	m/m
	T	Potential temperature	C
	U	Zonal velocity	m/s
	Ubisl	Islands barotropic zonal velocity	m/s
	V	Meridional velocity	m/s
	Vbisl	Islands barotropic meridional velocity	m/s
	W	Vertical velocity	m/s

### Ocn\_ts.nc

1d	Agulhas	Flow from Indian into Atlantic around the tip of South Africa	Sv
	Amoc26N	Maximum Atlantic overturning at 26N (RAPID)	Sv
	Area	Total surface ocean area	Mln km2
	Bering		
	Bmelt_atl	Atlantic ice basal melt flux to ocean	Sv
	Bmelt_glob	Global ice basal melt flux to ocean	Sv
	Bmelt_ind		
	Bmelt_natl	North Atlantic ice basal melt flux to ocean	Sv
	Bmelt_pac	Pacific ice basal flux to ocean	Sv
	Bmelt_so		
	Calving_atl	Atlantic calving flux to ocean	Sv
	Calving_glob	Global calving flux to ocean	
	Calving_ind		

Calving_natl	North Atlantic calving flux to ocean	Sv
Calving_pac	Pacific calving flux to ocean	Sv
Calving_so	Southern ocean calving flux to ocean	Sv
Davis	Davis strait throughout flow (positive=north)(~2)	(Sv)/10**-16
Denmark	Denmark strait throughoutflow (positive=north)	Sv
Drake	Drake passage throughout flow (positive=east)(128+/-8)	Sv
Drhoatl	Atlantic meridional density gradient at 750m depth	Kg/m3
Faz	Net freshwater flux by the azonal circulation into the Atlantic	Sv
Fazn	Freshwater flux by the azonal circulation out of the Atlantic at its northern border	Sv
Fazs	Freshwater flux by the azonal circulation into the Atlantic at its southern border	Sv
Flx_atl	Atlantic heat flux to ocean	W/m2
Flx_glob	Global average net heat flux to ocean	W/m2
Flx_ind	Indian ocean heat flux to ocean	W/m2
Flx_pac	Pacific heat flux to ocean	W/m2
Flx_so	Southern ocean heat flux to ocean	W/m2
Fmaxa	Maximum Atlantic meridional freshwater transport	Sv
Fov	Net freshwater flux by the MOC into the Atlantic	Sv
Fovn	Freshwater flux by the MOC out of the Atlantic at its northern border	Sv
Fovs	Freshwater flux by the moc into the Atlantic at its southern border	Sv
Fram	Fram strait throughflow (positive=north)	Sv
Fw_atl	Atlantic net freshwater flux to ocean (-0.28+/-0.04 Talley2008)	Sv
Fw_bering	Bering strait freshwater transport relative to saln0	Sv
Fw_corr_glob	Global corrected net freshwater flux to ocean	Sv
Fw_davis	Davis strait freshwater transport relative to saln0	Sv
Fw_denmark	Denmark strait freshwater transport relative to saln0	Sv
Fw_fram	Fram strait freshwater transport relative to saln0	Sv

Fw_glob	Global net freshwater flux to ocean	Sv
Fw_ind	Indian ocean net freshwater flux to ocean (-0.37+/-0.10 Talley2008)	Sv
Fw_natl	North Atlantic (>30N) net freshwater flux to ocean	Sv
Fw_pac	Pacific net freshwater flux to ocean (0.04+/-0.09 Talley2008)	Sv
Fw_so	Southern ocean net freshwater flux to ocean (0.61+/-0.13 Talley2008)	Sv
Hmaxa	Maximum Atlantic meridional heat transport	PW
Hosing	Indonesian passage throughflow (-15+/-4)	Sv
Indo	Indonesian passage throughflow (-15+/-4)	Sv
Medi	Gibraltar strait throughflow	Sv/10**-13
Mld_gin	Maximum mixed layer depth in the GIN seas	M
Mld_ross	Maximum mixed layer depth in the Ross sea	m/10**3
Mld_sg	Maximum mixed layer depth in the Atlantic subpolar gyre region	m/10**3
Mld_so	Maximum mixed layer depth in the Southern ocean around Antarctica	m/10**3
Mld_wedd	Maximum mixed layer depth in the Weddel sea	m/10**3
Ncells	Number of active ocean grid cells	0 to n

Ohc2000	Ocean heat content (top 2000m)	J/10**24
Ohc700	Ocean heat content (top 700m)	H/10**24
Oinfa	Maximum southern Atlantic inflow	Sv
Omaxa	Maximum Atlantic overturning	Sv
Omaxp	Maximum Pacific overturning	Sv
Omaxs	Maximum Southern ocean overturning	Sv
Omina	Minimum Atlantic overturning	Sv
Ominp	Minimum Pacific overturning	Sv
Omins	Minimum Southern ocean overturning	Sv
P_e_atl	Atlantic P-E freshwater flux	Sv
P_e_glob	Global P-E freshwater flux to ocean	Sv
P_e_ind	Indian ocean P-E freshwater flux	Sv
P_e_natl	North Atlantic P-E freshwater flux	Sv
P_e_pac	Pacific P-E freshwater flux	Sv
P_e_so	Southern ocean P-E freshwater flux	Sv
Runoff_atl	Atlantic runoff flux to ocean	Sv
Runoff_glob	Global runoff flux to ocean	Sv
Runoff_ice_atl	Atlantic runoff flux to ocean	Sv
Runoff_ice_glob	Global runoff flux to ocean	Sv
Runoff_ice_ind		
Runoff_ice_natl	North Atlantic runoff flux to ocean	Sv
Runoff_ice_pac	Pacific runoff flux to ocean	Sv
Runoff_ice_so	Southern ocean runoff flux to ocean	Sv
Runoff_ind	Indian ocean runoff flux to ocean	Sv
Runoff_lake_atl		
Runoff_lake_glob		
Runoff_lake_ind		
Runoff_lake_natl		
Runoff_lake_pac		
Runoff_lake_so		
Runoff_natl	North Atlantic runoff flux to ocean	Sv
Runoff_pac	Pacific runoff flux to ocean	Sv
Runoff_so	Southern ocean runoff flux to ocean	Sv
Runoff_veg_atl	Atlantic runoff flux to ocean	Sv

Runoff_veg_glob	Global runoff flux to ocean	Sv
Runoff_veg_ind	Indian ocean runoff flux to ocean	Sv
Runoff_veg_natl	North Atlantic runoff flux to ocean	Sv
Runoff_veg_pac	Pacific runoff flux to ocean	Sv
Runoff_veg_so	Southern ocean runoff flux to ocean	Sv
Shelf	Total area of ocean shelf	Mln km2
Sl_steric	Steric sea level change relative ot first simulation year	M
Sss	Sea surface salinity	psu
Sst	Sea surface temperature	C
Svol	Volume averaged ocean salinity	Psu

	Tvol	Volume averaged ocean potential temperature	C
	Vol	Total ocean volume	Mln km3
	Vsf_atl	Atlantic virtual salinity flux	Sv
	Vsf_glob	Global virtual salinity flux to ocean	Sv
	Vsf_ind	Indian ocean virtual salinity flux	Sv
	Vsf_natl	North Atlantic virtual salinity flux	Sv
	Vsf_pac	Pacific virtual salinity flux	Sv
	Vsf_so	Southern ocean virtual salinity flux	Sv
<b>Rsl.nc</b>			
	Rsl	Relative sea level	
<b>Rsl_rs.nc</b>			
	Rsl	Relative sea level	m
<b>Sic.nc</b>			
3d	Focn	Ocean fraction	0 to 1
4d	Alb_ocn	Ocean albedo	
	Alb_sic	Sea ice albedo	
	Cde_ocn	Drag coefficient for moisture over ocean water	
	Cde_sic	Drag coefficient for moisture over sea ice	
	Cdh_ocn	Drag coefficient for heat over ocean water	
	Cdh_sic	Drag coefficient for heat over sea ice	
	Dh_sic_dt_dyn	Sea ice thickness change from transport	m/day
	Dh_sic_dt_therm	Sea ice thickness change from thermodynamics	m/day
	Dh_sic_dt_therm_ocn	Sea ice thickness change from thermodynamics in leads	m/day
	Dh_sic_dt_therm_sic	Sea ice thickness change from thermodynamics over sea ice sea	m/day
	Dust_con	Dust concentration in snow	Mg/kg
	Evp	Evaporation/sublimation	Kg/m2/day
	Evp_ocn	Evaporation from ocean	Kg/m2/day
	Evp_sic	Sublimation from sea ice	Kg/m2/day
	Flx_melt_bot	Snow/ice melt flux from bottom	W/m2
	Flx_melt_top	Snow/ice melt flux from top	W/m2
	Fsic	Sea ice fraction	0 to 1
	Fw	Sea ice freshwater flux to the ocean	Kg/m2/day
	Fw_brines	Freshwater flux to the ocean from brine rejection	Kg/m2/day
	Fw_ocn	Sea ice freshwater flux to the ocean from ice free fraction	Kg/m2/day
	Fw_sic	Sea ice freshwater flux to the ocean from sea ice fraction	Kg/m2/day
	Fx	Heat flux to the ocean	W/m2
	Fx_ocn	Heat flux to the ocean from ice free fraction	W/m2
	Fx_sic	Heat flux to the ocean from sea ice fraction	W/m2
	Hsic	Sea ice thickness of sea ice fraction	M
	Hsnow	Snow thickness of sea ice fraction	M
	Lh	Latent heat flux	W/m2
	Lh_ocn	Latent heat flux from ocean	W/m2
	Lh_sic	Latent heat flux over sea ice	W/m2
	Lwu	Upwelling longwave radiation	W/m2

Lwu_ocn	Upwelling longwave radiation from ocean	W/m2
Lwu_sic	Uowelling longwave radiation over sea ice	W/m2
P-e	Precipitation - evaporation	Kg/m2/day
Rain	Rainfall	Kg/m2/day
Sh	Sensible heat flux	W/m2
Sh_ocn	Sensible heat flux from ocean	W/m2
Sh_sic	Sensible heat flux over sea ice	W/m2
Snow	Snowfall	Kg/m2/day
Snow_grain	Snow grain size	0 to 1000 micro m
Str_d	The divergence stress tensor component	Pa m
Str_s	The shearing stress tensor component	Pa m
Str_t	The tension stress tensor component	Pa m
Tauxa	Zonal wind stress on ice	N/m2
Tauxo	Zonal ocean stress on sea ice	N/m2
Tauya	Meridional wind stress on sea ice	N/m2
Tauyo	Meridional ocean stress on sea ice	N/m2
Tocn	Ocean skin temperature	C (?)
Tsic	Sea ice skin temperature	C (?)
Usic	Zonal sea ice drift on u-grid	Cm/s
Vsic	Meridional sea ice drift on v-grid	Cm/s

## Sic\_ts.nc

A_nh	Monthly NH sea ice area	Mln km2
A_sh	Monthly SH sea ice area	Mln km2
E_nh	Monthly NH sea ice extent (>15 percent)	Mln km2
E_sh	Monthly SH sea ice extent (>15 percent)	Mln km2
V_nh	Monthly NH sea ice volume	10^4 km3
V_sh	Monthly SH sea ice volume	10^4 km3
Ncells	Number of active sea ice grid cells	
Area	Area of sea ice domain	Mln km2
A_nh_min	Minimum NH sea ice area (4.4 NSIDC)	Mln km2
A_nh_max	Maximum NH sea ice area (13 NSIDC)	Mln km2
A_sh_min	Minimum SH sea ice area (2 NSIDC)	Mln km2
A_sh_max	Maximum SH sea ice area ( 14.5 NSIDC)	Mln km2
E_nh_min	Minimum NH sea ice extent	Mln km2
E_nh_max	Maximum NH sea ice extent	Mln km2
E_sh_min	Minimum SH sea ice extent	Mln km2
E_sh_max	Maximum SH sea ice extent	Mln km2
V_nh_min	Minimum NH sea ice volume	10^4 km3
V_nh_max	Maximum NH sea ice volume	10^4 km3
V_sh_min	Minimum SH sea ice volume	10^4 km3
V_sh_max	Maximum SH sea ice volume	10^4 km3
Fram_exp	Sea ice export through the Fram strait, positive northward (-0.1 Sv)	Sv
Denmark_exp	Sea ice export through the Denmark strait, positive northward (-0.1 Sv)	Sv

## Smb\_NH-40KM.nc

Phi		
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Lambda		
Mask_smb	Mask where SEMI is applied	0 to 1
Smb_pdd	Annual surface mass balance using PDD scheme	Kg/m2/day
Alb_bg	Background (ice/bare soil) albedo	0 to 1
Alb_ice	Ice albedo	0 to 1
F_ice	Sub-grid ice sheet fraction due to orography	0 to 1
H_ice	Ice thickness	M
Mask_margin	Ice mask margin	0 to 1
F_margin	Ice margin factor	0 to 1
Mask_ice	Ice mask	0 to 1
Mask_maxice	Mask of maximum allowed ice sheet extent	
Z_sur_i	Interpolated surface elevation	M
Dz_dx_sur	Zonal gradient of surface elevation	
Dz_dy_sur	Meridional gradient of surface elevation	
Dz_sur	Surface elevation gradient	
Z_sur	Surface elevation	M
Z_sur_eff	Effective surface elevation	M
Z_sur_fil	Smoothed surface elevation	M
Z_sur_std	Sub-grid standard deviation of surface elevation	M
F_ele	Elevation factor for precipitation downscaling	0 to 1
T_ice	Surface ice temperature (10m firn)	degC
T_ground_i	Interpolated ground temperature	degC
T_ground	Ground temperature (soil temperature over land and bottom water temperature over ocean)	degC
Pdd	Positive degree days	degC
Smb	Annual surface mass balance	Kg/m2/yr
Smb_ice	Annual surface mass balance, for ice cells only	Kg/m2/yr
Smb_noice	Annual surface mass balance, for ice-free cells only	Kg/m2/yr
Prc_ann	Annual precipitation	Kg/m2/yr
Snow_ann	Annual snowfall	Kg/m2/yr
Melt_ann	Annual surface melt	Kg/m2/yr
Runoff_ann	Annual runoff	Kg/m2/yr
Evp_ann	Annual sublimation	Kg/m2/yr
Refreezing_ann	Refreezing	Kg/m2/yr

## Smb\_NH-40KM\_ts.nc

Aice	Total ice sheet area	Mln km2
Smb	Integrated surface mass balance of ice sheets	(Gt/yr)/10**3
Prc	Integrated precipitation over ice sheets	(Gt/yr)/10**3
Snow	Integrated snowfall on ice sheets	(Gt/yr)/10**3
Melt	Total melt (ice+snow) of ice sheets	(Gt/yr)/10**3
Run	Integrated runoff from ice sheets	(Gt/yr)/10**3
Rfz	Integrated refreezing on ice sheets	Gt/yr



	Subl	Integrated sublimation ice sheets	Gt/yr
	Smb_avg	Averaged surface mass balance of ice sheets	kg/m2/yr
	Prc_avg	Averaged precipitation over ice sheets	Kg/m2/yr
	Snow_avg	Averaged snowfall on ice sheets	Kg/m2/yr
	Melt_avg	Total melt (ice+snow) of ice sheets	Kg/m2/yr
	Run_avg	Averaged runoff from ice sheets	Kg/m2/yr
	Rfz_avg	Averaged refreezing on ice sheets	Kg/m2/yr
	Subl_avg	Averaged sublimation ice sheets	Kg/m2/yr
<b>Vega1.nc</b>			
	Degree	Degree of spherical harmonic	0 to 170
	Order	Order of spherical harmonic	0 to 170
	U	Spherical harmonics coefficient U	M
	V	Spherical harmonics coefficient V	M
	W	Spherical harmonics coefficient W	M
	F	Spherical harmonics coefficient F	M^2/s^2
<b>Vilma_h_ice.nc</b>			
	Ice	Ice thickness	M
<b>Vilma_z_ref.nc</b>			
	Topo	Reference topography	m