Overview POP runs
for eSalsa project

For access to the data generated by the eSalsa runs described below please contact Michael Kliphuis via email address: m.kliphuis@uu.nl

PS004	
Description	High-resolution POP (Parallel Ocean Program, http://www.cesm.ucar.edu/models/ccsm4.0/pop/ run for the eSalsa project. It is initialized from a 75 year spin-up simulation [Maltrud et al., 2008] that used the CORE-I climatology dataset [Large and Yeager , 2004] as atmospheric forcing. From this initialization start point the model is then forced with the ensemble mean atmospheric winds, surface heat fluxes and surface freshwater fluxes from the ESSENCE project [Sterl et al., 2008] (see www.knmi.nl/~sterl/Essence/) that take observed concentrations of greenhouse gases and anthropogenic aerosols into account.
Period	1950 - 2001 (51 years)
Model Version	POP Version 2.1alpha (0.1 degrees = 3600 x 2400 x 42 grid points)
Performed on	Cartesius (Bullx) at SURFsara in Amsterdam, the Netherlands
Project	eSalsa (An **e**Science **A**pproach to determine future **L**ocal **S**ea-level ch**A**nges)
Variables Saved	Monthly: meridional heat transports and MOC (both for World, Atlantic and Indo-pacific) UVEL, VVEL, KE, TEMP, SALT, SSH, H2, SHF, SFWF, TAUX, TAUY, UET, VNT, PD, HMXL, XMXL, TMXL (for meaning see Appendix) Daily: mass, heat and salt transports (through 141 straits) UVEL_5m, VVEL_5m, TEMP_5m, SALT_5m, UVEL_15m, VVEL_15m, TEMP_15m, SALT_15m, SSH (for meaning see Appendix)
Scratch path on Cartesius (online for postprocessing)	/projects/0/esalsa/sbrun/PS004 directories tavg : original monthly mean data on a curvilinear 0.1 degrees grid (binary) movie : original daily mean data on a curvilinear 0.1 degrees grid (netcdf) restart: original restart data (snapshot at end of the year) on a curvilinear 0.1 degrees grid (binary) transport: daily mass, heat and salt transports through 141 straits like drake passage etc. (ascii) tavg_rectgrid : converted monthly mean data on a rectangular 0.4 degrees grid (netcdf) movie_rectgrid : converted daily mean data on a rectangular 0.4 degrees grid (netcdf) msf : monthly mean meridional heat transport and MOC, both for World, Atlantic and Indo-pacific (netcdf)
Archive path on Cartesius (backup on tape)	/archive/sbrun/PS004/ directories tavg : original monthly mean data on a curvilinear 0.1 degrees grid (binary) movie : original daily mean data on a curvilinear 0.1 degrees grid (netcdf) restart: original restart data (snapshot at end of the year) on a curvilinear 0.1 degrees grid (binary) transport: daily mass, heat and salt transports through 141 straits like drake passage etc. (ascii) tavg_rectgrid : converted monthly mean data on a rectangular 0.4 degrees grid (netcdf) movie_rectgrid : converted daily mean data on a rectangular 0.4 degrees grid (netcdf) msf : monthly mean meridional heat transport and MOC both for World, Atlantic and Indo-pacific (netcdf)
Filenames	tavg: t.t0.1_42l_nccs01.yyyymm movie: m.t0.1_42l_nccs01.yyyymmdd restart: r.t0.1_42l_nccs01.yyyymm01 transport: transp.t0.1_42l_nccs01.yyyymm01 tavg_rectgrid: t.t0.1_42l_nccs01.yyyymm.interp900x602.nc movie_rectgrid: m.t0.1_42l_nccs01.yyyymm.interp900x602.nc msf: MSF_t.t0.1_42l_nccs01.yyyymm.nc

PS021	
Description	High-resolution POP run for the eSalsa project. It is initialized/restarted from the restart file of end of year 2000 of the PS004 run described above. From this initialization start point the model is then forced with atmospheric winds, surface heat fluxes and surface freshwater fluxes obtained from the ECHAM5-OM1 model according to the SRES A1B scenario (from ensemble member #21 of the ESSENCE project [Sterl et al., 2008]).
Period	2001 - 2051 (50 years)
Model Version	POP Version 2.1alpha (0.1 degrees = 3600 x 2400 x 42 grid points)
Performed on	Cartesius (Bullx) at SURFsara in Amsterdam, the Netherlands
Project	eSalsa (An **eS**cience **A**pproach to determine future **L**ocal **S**ea-level ch**A**nges)
Variables Saved	Monthly: meridional heat transports and MOC (both for World, Atlantic and Indo-pacific) UVEL, VVEL, KE, TEMP, SALT, SSH, H2, SHF, SFWF, TAUX, TAUY, UET, VNT, PD, HMXL, XMXL, TMXL (for meaning see Appendix) Daily: mass, heat and salt transports (through 141 straits) UVEL_5m, VVEL_5m, TEMP_5m, SALT_5m, UVEL_15m, VVEL_15m, TEMP_15m, SALT_15m, SSH (for meaning see Appendix)
Scratch path on Cartesius (online for postprocessing)	/projects/0/esalsa/sbrun/PS021 directories tavg : original monthly mean data on a curvilinear 0.1 degrees grid (binary) movie : original daily mean data on a curvilinear 0.1 degrees grid (netcdf) restart: original restart data (snapshot at end of the year) on a curvilinear 0.1 degrees grid (binary) transport: daily mass, heat and salt transports through 141 straits like drake passage etc. (ascii) tavg_rectgrid : converted monthly mean data on a rectangular 0.4 degrees grid (netcdf) movie_rectgrid : converted daily mean data on a rectangular 0.4 degrees grid (netcdf) msf : monthly mean meridional heat transport and MOC, both for World, Atlantic and Indo-pacific (netcdf)
Archive path on Cartesius (backup on tape)	/archive/sbrun/PS021/ directories tavg : original monthly mean data on a curvilinear 0.1 degrees grid (binary) movie : original daily mean data on a curvilinear 0.1 degrees grid (netcdf) restart: original restart data (snapshot at end of the year) on a curvilinear 0.1 degrees grid (binary) transport: daily mass, heat and salt transports through 141 straits like drake passage etc. (ascii) tavg_rectgrid : converted monthly mean data on a rectangular 0.4 degrees grid (netcdf) movie_rectgrid : converted daily mean data on a rectangular 0.4 degrees grid (netcdf) msf : monthly mean meridional heat transport and MOC both for World, Atlantic and Indo-pacific (netcdf)
Filenames	tavg: t.t0.1_42l_nccs01.yyyymm movie: m.t0.1_42l_nccs01.yyyymmdd restart: r.t0.1_42l_nccs01.yyyymm01 transport: transp.t0.1_42l_nccs01.yyyymm01 tavg_rectgrid: t.t0.1_42l_nccs01.yyyymm.interp900x602.nc movie_rectgrid: m.t0.1_42l_nccs01.yyyymm.interp900x602.nc msf: MSF_t.t0.1_42l_nccs01.yyyymm.nc

PS021_gpu	
Description	High-resolution POP run that partly ran on GPUs for the eSalsa project. In the eSalsa project eScience engineers improved the performance of POP by selecting specific kernels (routines), which were most expensive in terms of CPU time and reprogrammed them in the Cuda language so that these kernels could be run on GPU's. The rest of the POP code runs on normal CPU's. It is initialized/restarted from the restart file of year 2050 of the PS021 run described above. From this initialization start point the model is forced with the same atmospheric winds, surface heat fluxes and surface freshwater fluxes as in run PS021 i.e. the ones obtained from the ECHAM5-OM1 model according to the SRES A1B scenario (from ensemble member #21 of the ESSENCE project [Sterl et al., 2008]).
Period	2051 - 2100 (50 years)
Model Version	POP Version 2.1alpha (0.1 degrees = 3600 x 2400 x 42 grid points)
Performed on	Cartesius (Bullx) at SURFsara in Amsterdam, the Netherlands
Project	eSalsa (An **eS**cience **A**pproach to determine future **L**ocal **S**ea-level ch**A**nges)
Variables Saved	Monthly: meridional heat transports and MOC (both for World, Atlantic and Indo-pacific) UVEL, VVEL, KE, TEMP, SALT, SSH, H2, SHF, SFWF, TAUX, TAUY, UET, VNT, PD, HMXL, XMXL, TMXL (for meaning see Appendix) Daily: mass, heat and salt transports (through 141 straits) UVEL_5m, VVEL_5m, TEMP_5m, SALT_5m, UVEL_15m, VVEL_15m, TEMP_15m, SALT_15m, SSH (for meaning see Appendix)
Scratch path on Cartesius (online for postprocessing)	/projects/0/esalsa/sbrun/PS021_gpu directories tavg : original monthly mean data on a curvilinear 0.1 degrees grid (binary) movie : original daily mean data on a curvilinear 0.1 degrees grid (netcdf) restart: original restart data (snapshot at end of the year) on a curvilinear 0.1 degrees grid (binary) transport: daily mass, heat and salt transports through 141 straits like drake passage etc. (ascii) tavg_rectgrid : converted monthly mean data on a rectangular 0.4 degrees grid (netcdf) movie_rectgrid : converted daily mean data on a rectangular 0.4 degrees grid (netcdf) msf : monthly mean meridional heat transport and MOC, both for World, Atlantic and Indo-pacific (netcdf)
Archive path on Cartesius (backup on tape)	/archive/sbrun/PS021_gpu/ directories tavg : original monthly mean data on a curvilinear 0.1 degrees grid (binary) movie : original daily mean data on a curvilinear 0.1 degrees grid (netcdf) restart: original restart data (snapshot at end of the year) on a curvilinear 0.1 degrees grid (binary) transport: daily mass, heat and salt transports through 141 straits like drake passage etc. (ascii) tavg_rectgrid : converted monthly mean data on a rectangular 0.4 degrees grid (netcdf) movie_rectgrid : converted daily mean data on a rectangular 0.4 degrees grid (netcdf) msf : monthly mean meridional heat transport and MOC both for World, Atlantic and Indo-pacific (netcdf)
Filenames	tavg: t.t0.1_42l_nccs01.yyyymm movie: m.t0.1_42l_nccs01.yyyymmdd restart: r.t0.1_42l_nccs01.yyyymm01 transport: transp.t0.1_42l_nccs01.yyyymm01 tavg_rectgrid: t.t0.1_42l_nccs01.yyyymm.interp900x602.nc movie_rectgrid: m.t0.1_42l_nccs01.yyyymm.interp900x602.nc msf: MSF_t.t0.1_42l_nccs01.yyyymm.nc

PS029	
Description	High-resolution POP run for the eSalsa project. It is initialized/restarted from the restart file of year 2000 of the PS004 run described above. From this initialization start point the model is then forced with atmospheric winds, surface heat fluxes and surface freshwater fluxes obtained from the ECHAM5-OM1 model according to the SRES A1B scenario (from ensemble member #29 of the ESSENCE project [Sterl et al., 2008]).
Period	2001 - 2100 (100 years)
Model Version	POP Version 2.1alpha (0.1 degrees = 3600 x 2400 x 42 grid points)
Performed on	Cartesius (Bullx) at SURFsara in Amsterdam, the Netherlands
Project	eSalsa (An **eS**cience **A**pproach to determine future **L**ocal **S**ea-level ch**A**nges
Variables Saved	Monthly: meridional heat transports and MOC (both for World, Atlantic and Indo-pacific) UVEL, VVEL, KE, TEMP, SALT, SSH, H2, SHF, SFWF, TAUX, TAUY, UET, VNT, PD, HMXL, XMXL, TMXL (for meaning see Appendix) Daily: mass, heat and salt transports (through 141 straits) UVEL_5m, VVEL_5m, TEMP_5m, SALT_5m, UVEL_15m, VVEL_15m, TEMP_15m, SALT_15m, SSH (for meaning see Appendix)
Scratch path on Cartesius (online for postprocessing)	/projects/0/esalsa/sbrun/PS029 directories tavg : original monthly mean data on a curvilinear 0.1 degrees grid (binary) movie : original daily mean data on a curvilinear 0.1 degrees grid (netcdf) restart: original restart data (snapshot at end of the year) on a curvilinear 0.1 degrees grid (binary) transport: daily mass, heat and salt transports through 141 straits like drake passage etc. (ascii) tavg_rectgrid : converted monthly mean data on a rectangular 0.4 degrees grid (netcdf) movie_rectgrid : converted daily mean data on a rectangular 0.4 degrees grid (netcdf) msf : monthly mean meridional heat transport and MOC, both for World, Atlantic and Indo-pacific (netcdf)
Archive path on Cartesius (backup on tape)	/archive/sbrun/PS029/ directories tavg : original monthly mean data on a curvilinear 0.1 degrees grid (binary) movie : original daily mean data on a curvilinear 0.1 degrees grid (netcdf) restart: original restart (snapshot at end of the year) on a curvilinear 0.1 degrees grid (binary) transport: daily mass, heat and salt transports through 141 straits like drake passage etc. (ascii) tavg_rectgrid : converted monthly mean data on a rectangular 0.4 degrees grid (netcdf) movie_rectgrid : converted daily mean data on a rectangular 0.4 degrees grid (netcdf) msf : monthly mean meridional heat transport and MOC both for World, Atlantic and Indo-pacific (netcdf)
Filenames	tavg: t.t0.1_42l_nccs01.yyyymm movie: m.t0.1_42l_nccs01.yyyymmdd restart: r.t0.1_42l_nccs01.yyyymm01 transport: transp.t0.1_42l_nccs01.yyyymm01 tavg_rectgrid: t.t0.1_42l_nccs01.yyyymm.interp900x602.nc movie_rectgrid: m.t0.1_42l_nccs01.yyyymm.interp900x602.nc msf: MSF_t.t0.1_42l_nccs01.yyyymm.nc

PS033	
Description	High-resolution POP run for the eSalsa project. It is initialized/restarted from the restart file of end of year 2000 of the PS004 run described above. From this initialization start point the model is then forced with atmospheric winds, surface heat fluxes and surface freshwater fluxes obtained from the ECHAM5-OM1 model according to the SRES A1B scenario (from ensemble member #33 of the ESSENCE project [Sterl et al., 2008]).
Period	2001 - 2100 (100 years)
Model Version	POP Version 2.1alpha (0.1 degrees = 3600 x 2400 x 42 grid points)
Performed on	Cartesius (Bullx) at SURFsara in Amsterdam, the Netherlands
Project	eSalsa (An **eS**cience **A**pproach to determine future **L**ocal **S**ea-level ch**A**nges)
Variables Saved	Monthly: meridional heat transports and MOC (both for World, Atlantic and Indo-pacific) UVEL, VVEL, KE, TEMP, SALT, SSH, H2, SHF, SFWF, TAUX, TAUY, UET, VNT, PD, HMXL, XMXL, TMXL (for meaning see Appendix) Daily: mass, heat and salt transports (through 141 straits) UVEL_5m, VVEL_5m, TEMP_5m, SALT_5m, UVEL_15m, VVEL_15m, TEMP_15m, SALT_15m, SSH (for meaning see Appendix)
Scratch path on Cartesius (online for postprocessing)	/projects/0/esalsa/sbrun/PS033 directories tavg : original monthly mean data on a curvilinear 0.1 degrees grid (binary) movie : original daily mean data on a curvilinear 0.1 degrees grid (netcdf) restart: original restart data (snapshot at end of the year) on a curvilinear 0.1 degrees grid (binary) transport: daily mass, heat and salt transports through 141 straits like drake passage etc. (ascii) tavg_rectgrid : converted monthly mean data on a rectangular 0.4 degrees grid (netcdf) movie_rectgrid : converted daily mean data on a rectangular 0.4 degrees grid (netcdf) msf : monthly mean meridional heat transport and MOC, both for World, Atlantic and Indo-pacific (netcdf)
Archive path on Cartesius (backup on tape)	/archive/sbrun/PS033/ directories tavg : original monthly mean data on a curvilinear 0.1 degrees grid (binary) movie : original daily mean data on a curvilinear 0.1 degrees grid (netcdf) restart: original restart data (snapshot at end of the year) on a curvilinear 0.1 degrees grid (binary) transport: daily mass, heat and salt transports through 141 straits like drake passage etc. (ascii) tavg_rectgrid : converted monthly mean data on a rectangular 0.4 degrees grid (netcdf) movie_rectgrid : converted daily mean data on a rectangular 0.4 degrees grid (netcdf) msf : monthly mean meridional heat transport and MOC both for World, Atlantic and Indo-pacific (netcdf)
Filenames	tavg: t.t0.1_42l_nccs01.yyyymm movie: m.t0.1_42l_nccs01.yyyymmdd restart: r.t0.1_42l_nccs01.yyyymm01 transport: transp.t0.1_42l_nccs01.yyyymm01 tavg_rectgrid: t.t0.1_42l_nccs01.yyyymm.interp900x602.nc movie_rectgrid: m.t0.1_42l_nccs01.yyyymm.interp900x602.nc msf: MSF_t.t0.1_42l_nccs01.yyyymm.nc

PS004_low	
Description	Low resolution POP run with the 1 degree POP version for the eSalsa project (= equivalent of 'PS004' but now for 1 degree case) It is initialized from a 500-year spin-up simulation [Maltrud et al., 2008] that used the CORE-I climatology dataset [Large and Yeager, 2004] as atmospheric forcing. From this initialization start point the model is then forced with the ensemble mean atmospheric winds, surface heat fluxes and surface freshwater fluxes from the ESSENCE project [Sterl et al., 2008] (see www.knmi.nl/~sterl/Essence/) that take observed concentrations of greenhouse gases and anthropogenic aerosols into account.
Period	1950 - 2001 (51 years)
Model Version	POP Version 2.1alpha (1 degree = 320x120x40)
Performed on	Cartesius (Bullx) at SURFsara in Amsterdam, the Netherlands
Project	eSalsa (An **eS**cience **A**pproach to determine future **L**ocal **S**ea-level ch**A**nges)
Variables Saved	Monthly: UVEL, VVEL, TEMP, SALT, SSH, SWNET, LWNET, LATENT, SENSIBLE, T_STRONG_REST, EVAP, PRECIP, S_WEAK_REST, S_STRONG_REST, RUNOFF, SHF, SFWF, TAUX, TAUY, DYE, UET, VNT, UES, VNS, PD, HMXL, XMXL, TMXL (for meaning see Appendix) Daily: mass, heat and salt transports (17 straits)
Scratch path on Cartesius (online for postprocessing)	/projects/0/esalsa/sbrun/PS004_low directories tavg : original monthly mean data on a curvilinear 1 degrees grid (binary) restart: original restart data (snapshot at end of the year) on a curvilinear 1 degrees grid (binary) transport: daily mass, heat and salt transports through 17 straits like drake passage etc. (ascii) tavg_rectgrid : converted monthly mean data on a rectangular 1 degrees grid (netcdf) msf : monthly mean meridional heat transport and MOC both for World, Atlantic and Indo-pacific (netcdf)
Archive path on Cartesius (backup on tape)	/archive/sbrun/PS004_low/ directories tavg : original monthly mean data on a curvilinear 1 degrees grid (binary) restart: original restart data (snapshot at end of the year) on a curvilinear 1 degrees grid (binary) transport: daily mass, heat and salt transports through 17 straits like drake passage etc. (ascii) tavg_rectgrid : converted monthly mean data on a rectangular 1 degrees grid (netcdf) msf : monthly mean meridional heat transport and MOC both for World, Atlantic and Indo-pacific (netcdf)
Filenames	tavg: t.x1_SAMOC_flux.yyyymm restart: r.x1_SAMOC_flux.yyyymm01 transport: tran.x1_SAMOC_flux.yyyymm01 tavg_rectgrid: t.x1_SAMOC_flux.yyyymm.interp.nc msf: MSF_t.x1_SAMOC_flux.yyyymm.nc

PS021_low	
Description	Low resolution POP run with the 1 degree POP version for the eSalsa project (= equivalent of 'PS021' but now for 1 degree case) It is initialized/restarted from the restart file of end of year 2000 of the PS004_low run described above. From this initialization start point the model is then forced with atmospheric winds, surface heat fluxes and surface freshwater fluxes obtained from the ECHAM5-OM1 model according to the SRES A1B scenario (from ensemble member #21 of the ESSENCE project [Sterl et al., 2008]).
Period	2001 - 2100 (100 years)
Model Version	POP Version 2.1alpha (1 degree = 320x120x40)
Performed on	Cartesius (Bullx) at SURFsara in Amsterdam, the Netherlands
Project	eSalsa (An **eS**cience **A**pproach to determine future **L**ocal **S**ea-level ch**A**nges)
Variables Saved	Monthly: UVEL, VVEL, TEMP, SALT, SSH, SWNET, LWNET, LATENT, SENSIBLE, T_STRONG_REST, EVAP, PRECIP, S_WEAK_REST, S_STRONG_REST, RUNOFF, SHF, SFWF, TAUX, TAUY, DYE, UET, VNT, UES, VNS, PD, HMXL, XMXL, TMXL (for meaning see Appendix) Daily: mass, heat and salt transports (17 straits)
Scratch path on Cartesius (online for postprocessing)	/projects/0/esalsa/sbrun/PS021_low directories tavg : original monthly mean data on a curvilinear 1 degrees grid (binary) restart: original restart data (snapshot at end of the year) on a curvilinear 1 degrees grid (binary) transport: daily mass, heat and salt transports through 17 straits like drake passage etc. (ascii) tavg_rectgrid : converted monthly mean data on a rectangular 1 degrees grid (netcdf) msf : monthly mean meridional heat transport and MOC both for World, Atlantic and Indo-pacific (netcdf)
Archive path on Cartesius (backup on tape)	/archive/sbrun/PS021_low/ directories tavg : original monthly mean data on a curvilinear 1 degrees grid (binary) restart: original restart data (snapshot at end of the year) on a curvilinear 1 degrees grid (binary) transport: daily mass, heat and salt transports through 17 straits like drake passage etc. (ascii) tavg_rectgrid : converted monthly mean data on a rectangular 1 degrees grid (netcdf) msf : monthly mean meridional heat transport and MOC both for World, Atlantic and Indo-pacific (netcdf)
Filenames	tavg: t.x1_SAMOC_flux.yyyymm restart: r.x1_SAMOC_flux.yyyymm01 transport: tran.x1_SAMOC_flux.yyyymm01 tavg_rectgrid: t.x1_SAMOC_flux.yyyymm.interp.nc msf: MSF_t.x1_SAMOC_flux.yyyymm.nc

APPENDIX

The following tables contain a list of possible monthly and daily POP output fields.

The grid descriptor, DIJK, consists of four integers. The first indicates the dimensionality ("D") of the field (2-D or 3-D). The three integers which follow identify the i,j,k-grid upon which the field resides, where a value of "1" specifies the tracer grid and a value of "2" specifies the staggered velocity grid.

Monthly fields

DIJK	Name	Description	Units
2110	TMTG	Meridional Overturning Streamfunction Global	Sv
2110	TMTA	Meridional Overturning Streamfunction Atlantic	Sv
2110	TMTIP	Meridional Overturning Streamfunction Indo-Pacific	Sv
2110	SHF	Total Surface Heat Flux, Including SW	W/m^2
2110	SFWF	Virtual Salt Flux in FW Flux formulation	$kg/m^2/s$
2110	SSH	Sea Surface Height	cm
2220	TAUX	Zonal Windstress	$dyne/cm^2$
2220	TAUY	Meridional Windstress	$dyne/cm^2$
2110	HMXL	Mixed-Layer Depth	cm
2110	MXHML	Maximum Mixed-Layer Depth	cm
2110	XMXL	Maximum Mixed-Layer Depth	cm
2110	HBLT	Boundary-Layer Depth	cm
2110	MXHBLT	Maximum Boundary-Layer Depth	cm
2110	XBLT	Maximum Boundary-Layer Depth	cm
2110	TMXL	Minimum Mixed-Layer Depth	cm
2110	TBLT	Minimum Boundary-Layer Depth	cm
2110	H2	SSH**2	cm^2
3111	IDEALAGE	The age of a water parcel (time since it was last at the surface)	years
3111	TTD01	Transit Time Distribution Region 01	years
3111	TTD02	Transit Time Distribution Region 02	years
3111	TTD03	Transit Time Distribution Region 03	years
3111	TTD11	Transit Time Distribution Region 11	years
3221	UVEL	Zonal Velocity	cm/s
3221	VVEL	Meridional Velocity	cm/s
3112	WVEL	Vertical Velocity	cm/s
3111	TEMP	Potential Temperature	degC
3111	SALT	Salinity	g/g
3111	PD	Potential Density Ref to Surface	g/cm^3
3211	UET	East Flux of Heat	degC/s
3121	VNT	North Flux of Heat	degC/s
3221	KE	Horizontal Kinetic Energy (U**2+V**2)/2	cm^2/s^2
3211	UES	East Flux of Salt	g/g/s
3121	VNS	North Flux of Salt	g/g/s
3111	PV	Potential Vorticity	1/cm/s
3111	Q	z-derivative of potential density	g/cm^4
3111	DYE	Dye that we tag to the Greenland freshwater perturbation to see where it goes.	unitless
2111	SWNET	Net shortwave heat flux	W/m^2
2111	LWNET	Net longwave heat flux	W/m^2
2111	LATENT	Latent heat flux	W/m^2
2111	SENSIBLE	Sensible heat flux	W/m^2
2111	EVAP	Evaporation	kg/m^2/s
2111	PRECIP	Precipitation	kg/m^2/s

2111	RUNOFF	River runoff	kg/m^2/s
2111	T_STRONG_REST	Strong restoring heat flux	W/m^2
2111	S_WEAK_REST	Salinity weak restoring	kg/m^2/s
2111	S_STRONG_REST	Salinity strong restoring	kg/m^2/s
2110	MHTG	mean meridional heat transport world	PW (PetaWatts)
2110	MHTA	mean meridional heat transport Atlantic	PW
2110	MHTIP	mean meridional heat transport Indo-pacific	PW
2110	TMTG	meridional overturning streamfunction world	Sv
2110	TMTA	meridional overturning streamfunction Atlantic	Sv
2110	TMTIP	meridional overturning streamfunction Indo-pacific	Sv

Daily fields

DIJK	Name	Description	Units
2220	UVEL_5m	Zonal Velocity at 5 meters depth	cm/s
2220	VVEL_5m	Meridional Velocity at 5 meters depth	cm/s
2110	TEMP_5m	Potential Temperature at 5 meters depth	degC
2110	SALT_5m	Salinity at 5 meters depth	psu
2220	UVEL_15m	Zonal Velocity at 15 meters depth	cm/s
2220	VVEL_15m	Meridional Velocity at 15 meters depth	cm/s
2110	TEMP_15m	Potential Temperature at 15 meters depth	degC
2110	SALT_15m	Salinity at 15 meters depth	psu
2110	SSH	Sea Surface Height	cm
2220	DYE01_5m	Dye tracer at 5m depth	unitless
2220	DYE_zint	Dye tracer integrated over entire depth	unitless