Lagrangian Trajectory Experiment - Diagnostics for the ArcticTraj-DE simulation

**duration to save model output after spin-up (3 month spin-up suggested) = {03-2006 to 09-2006}*

Description	Save in GRIB1 format, NetCDF/BOTH?	Variables long_name (CF if possible)	"short_name"	GRIB1 Code	"CF" units	Vertical CoordinateType
Orography height *Just one file	NetCDF	surface_altitude	orog	/	m	surface
Land Ocean Mask *Just one file	NetCDF	land_binary_mask	landf	/	1	surface
Grid box area *Just one file	NetCDF	grid_area	grid_area	/	m^2	surface
(1) TRAJ_DIAG_PACKAGE - 3-Hourly Instantaneous diagnostics to derive the trajectory files						
TWO Dimensional (2D)						
ATMOS						
Surface Pressure	Both	surface_air_pressure	ps	134	Pa	Surface
Boundary layer height	Both	atmosphere_boundary_layer_thickness	zmla	159	m	Surface
10-metre zonal wind	Both	eastward_wind	ua10m	165	$m\ s^{-1}$	Surface (10m)
10-metre meridional wind	Both	northward_wind	va10m	166	$m\ s^{-1}$	Surface (10m)
2-metre Temperature	Both	air_temperature	t2m	167	K	Surface (2m)
Large-scale precipitation*	Both	lwe_thickness_of_large_scale_precipitation_amount	precip_ls	142	m [time-accumulated]	Collumn
Convective precipitation*	Both	lwe_thickness_of_convective_precipitation_amount	precip_c	143	m [time-accumulated]	Collumn
Total precipitation**	Both	lwe_thickness_of_precipitation_amount	precip	228	m [time-accumulated]	Collumn
Surface sensible heat flux	Both	surface_upward_sensible_heat_flux	hfss	146	$J\ m^{-2}$ [time-accumulated]	Surface
THREE Dimensional (3D)						
ATMOS						
Geopotential on model levels***	Both	geopotential	zgeo	129	$m^2\ s^{-2}$	ModelLevel
Temperature	Both	air_temperature	t	130	K	ModelLevel
Zonal wind	Both	eastward_wind	ua	131	$m\ s^{-1}$	ModelLevel
Meridional wind	Both	northward_wind	va	132	$m\ s^{-1}$	ModelLevel
Specific humidity	Both	specific_humidity	hus	133	$kg\ kg^{-1}$	ModelLevel
Vertical (pressure) velocity****	Both	lagrangian_tendency_of_air_pressure	omega	135	$Pa\ s^{-1}$	ModelLevel
Relative humidity	Both	relative_humidity	hur	157	%	ModelLevel
Density of air	NetCDF	air_density	rho	/	$kg\ m^{-3}$	ModelLevel
Atmospheric pressure	NetCDF	air_pressure	plev	/	Pa	ModelLevel
Atmospheric mass content of air	NetCDF	atmosphere_mass_of_air_per_unit_area	airmass	/	$kg\ m^{-2}$	ModelLevel
Height above the surface	NetCDF	height	zh	/	m	ModelLevel
Layer geometrical thickness	NetCDF	cell_thickness	laythick	/	m	ModelLevel
CHEMISTRY & AEROSOLS						
3D fields of all aerosol tracers (number+mass)	NetCDF	number concentration of mode XX	conccnmodeXX	/	m^{-3}	ModelLevel
	NetCDF	mmr of tracer YY	mmrtrYY	/	1	ModelLevel
	NetCDF	dry diameter of mode XX	ddrymodeXX	/	m	ModelLevel
Ideally we require global 3D aerosol fields. If this is not possible for you please provide these fields at the Zeppelin station only: Lat=78.906,Lon=11.888						

* NB: Not required if total precip provided
** NB: Can provide this single diagnostic instead of Large-scale + Convective precip
*** Only if model data on pressure levels
**** This should be negative for upward motion