

const_2d_asm_Mx: Constant Model Parameters

Frequency: constant from 00:00 UTC (time-invariant)

Spatial Grid: 2D, cubed-sphere on single-level, full horizontal resolution on cube

Dimensions: grid resolution=1440, time=1

Granule Size: ~332 MB

<i>Name</i>	<i>Dim</i>	<i>Description</i>	<i>Units</i>
AREA	tyx	agrid cell area	m+2
FRLAKE	tyx	fraction of lake	1
FRLAND	tyx	fraction of land	1
FRLANDICE	tyx	fraction of land ice	1
FROCEAN	tyx	fraction of ocean	1
PHIS	tyx	surface geopotential height	m+2 s-2
SGH	tyx	isotropic stdv of GWD topography	m

inst_01hr_3d_CO2_Mv: CO2 Meteorological Field

Frequency: 1-hourly from 21:00 UTC (instantaneous)

Spatial Grid: 01HR, cubed-sphere on model-level, full horizontal resolution on cube

Dimensions: grid resolution=1440, level=52, time=1

Granule Size: ~2.5 GB

<i>Name</i>	<i>Dim</i>	<i>Description</i>	<i>Units</i>
CO2	tzyx	Carbon Dioxide (All Sources)	mol mol-1

inst_01hr_3d_CO_Mv: CO Meteorological Field

Frequency: 1-hourly from 21:00 UTC (instantaneous)

Spatial Grid: 01HR, cubed-sphere on model-level, full horizontal resolution on cube

Dimensions: grid resolution=1440, level=52, time=1

Granule Size: ~2.5 GB

<i>Name</i>	<i>Dim</i>	<i>Description</i>	<i>Units</i>
CO	tzyx	Carbon Monoxide (All Sources)	mol mol-1

inst_01hr_3d_DELP_Mv: DELP Meteorological Field

Frequency: 1-hourly from 21:00 UTC (instantaneous)

Spatial Grid: 01HR, cubed-sphere on model-level, full horizontal resolution on cube

Dimensions: grid resolution=1440, level=52, time=1

Granule Size: ~2.5 GB

<i>Name</i>	<i>Dim</i>	<i>Description</i>	<i>Units</i>
DELP	tzyx	pressure thickness	Pa

inst_01hr_3d_DTHDTCN_Mv: DTHDTCN Meteorological Field

Frequency: 1-hourly from 21:00 UTC (instantaneous)

Spatial Grid: 01HR, cubed-sphere on model-level, full horizontal resolution on cube

Dimensions: grid resolution=1440, level=52, time=1

Granule Size: ~2.5 GB

<i>Name</i>	<i>Dim</i>	<i>Description</i>	<i>Units</i>
DTHDTCN	tzyx	potential temperature tendency due to convection	K s-1

inst_01hr_3d_DTHDT_Mv: DTHDT Meteorological Field

Frequency: 1-hourly from 21:00 UTC (instantaneous)

Spatial Grid: 01HR, cubed-sphere on model-level, full horizontal resolution on cube

Dimensions: grid resolution=1440, level=52, time=1

Granule Size: ~2.5 GB

<i>Name</i>	<i>Dim</i>	<i>Description</i>	<i>Units</i>
DTHDT	tzyx	pressure weighted potential temperature tendency due to moist	Pa K s-1

inst_01hr_3d_FCLD_Mv: FCLD Meteorological Field

Frequency: 1-hourly from 21:00 UTC (instantaneous)

Spatial Grid: 01HR, cubed-sphere on model-level, full horizontal resolution on cube

Dimensions: grid resolution=1440, level=52, time=1

Granule Size: ~2.5 GB

<i>Name</i>	<i>Dim</i>	<i>Description</i>	<i>Units</i>
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FCLD	tzyx	cloud fraction for radiation	1
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inst_01hr_3d_H_Mv: Mid-Layer Height Meteorological Field

Frequency: 1-hourly from 21:00 UTC (instantaneous)

Spatial Grid: 01HR, cubed-sphere on model-level, full horizontal resolution on cube

Dimensions: grid resolution=1440, level=52, time=1

Granule Size: ~2.5 GB

<i>Name</i>	<i>Dim</i>	<i>Description</i>	<i>Units</i>
H	tzyx	mid layer heights	m

inst_01hr_3d_P_Mv: Pressure Meteorological Field

Frequency: 1-hourly from 21:00 UTC (instantaneous)

Spatial Grid: 01HR, cubed-sphere on model-level, full horizontal resolution on cube

Dimensions: grid resolution=1440, level=52, time=1

Granule Size: ~2.5 GB

<i>Name</i>	<i>Dim</i>	<i>Description</i>	<i>Units</i>
P	tzyx	mid level pressure	Pa

inst_01hr_3d_QI_Mv: QI Meteorological Field

Frequency: 1-hourly from 21:00 UTC (instantaneous)

Spatial Grid: 01HR, cubed-sphere on model-level, full horizontal resolution on cube

Dimensions: grid resolution=1440, level=52, time=1

Granule Size: ~2.5 GB

<i>Name</i>	<i>Dim</i>	<i>Description</i>	<i>Units</i>
QI	tzyx	mass fraction of cloud ice water	kg kg-1

inst_01hr_3d_QL_Mv: QL Meteorological Field

Frequency: 1-hourly from 21:00 UTC (instantaneous)

Spatial Grid: 01HR, cubed-sphere on model-level, full horizontal resolution on cube

Dimensions: grid resolution=1440, level=52, time=1

Granule Size: ~2.5 GB

<i>Name</i>	<i>Dim</i>	<i>Description</i>	<i>Units</i>
QL	tzyx	mass fraction of cloud liquid water	kg kg-1

inst_01hr_3d_QV_Mv: QV Meteorological Field

Frequency: 1-hourly from 21:00 UTC (instantaneous)

Spatial Grid: 01HR, cubed-sphere on model-level, full horizontal resolution on cube

Dimensions: grid resolution=1440, level=52, time=1

Granule Size: ~2.5 GB

<i>Name</i>	<i>Dim</i>	<i>Description</i>	<i>Units</i>
QV	tzyx	specific humidity	kg kg-1

inst_01hr_3d_RI_Mv: RI Meteorological Field

Frequency: 1-hourly from 21:00 UTC (instantaneous)

Spatial Grid: 01HR, cubed-sphere on model-level, full horizontal resolution on cube

Dimensions: grid resolution=1440, level=52, time=1

Granule Size: ~2.5 GB

<i>Name</i>	<i>Dim</i>	<i>Description</i>	<i>Units</i>
RI	tzyx	ice phase cloud particle effective radius	m

inst_01hr_3d_RL_Mv: RL Meteorological Field

Frequency: 1-hourly from 21:00 UTC (instantaneous)

Spatial Grid: 01HR, cubed-sphere on model-level, full horizontal resolution on cube

Dimensions: grid resolution=1440, level=52, time=1

Granule Size: ~2.5 GB

<i>Name</i>	<i>Dim</i>	<i>Description</i>	<i>Units</i>
RL	tzyx	liquid cloud particle effective radius	m

inst_01hr_3d_T_Mv: T Meteorological Field

Frequency: 1-hourly from 21:00 UTC (instantaneous)

Spatial Grid: 01HR, cubed-sphere on model-level, full horizontal resolution on cube

Dimensions: grid resolution=1440, level=52, time=1

Granule Size: ~2.5 GB

<i>Name</i>	<i>Dim</i>	<i>Description</i>	<i>Units</i>
T	tzyx	air temperature	K

inst_01hr_3d_U_Mv: U-Wind Meteorological Field

Frequency: 1-hourly from 21:00 UTC (instantaneous)

Spatial Grid: 01HR, cubed-sphere on model-level, full horizontal resolution on cube

Dimensions: grid resolution=1440, level=52, time=1

Granule Size: ~2.5 GB

<i>Name</i>	<i>Dim</i>	<i>Description</i>	<i>Units</i>
U	tzyx	eastward wind	m s-1

inst_01hr_3d_V_Mv: V-Wind Meteorological Field

Frequency: 1-hourly from 21:00 UTC (instantaneous)

Spatial Grid: 01HR, cubed-sphere on model-level, full horizontal resolution on cube

Dimensions: grid resolution=1440, level=52, time=1

Granule Size: ~2.5 GB

<i>Name</i>	<i>Dim</i>	<i>Description</i>	<i>Units</i>
V	tzyx	northward wind	m s-1

inst_01hr_3d_W_Mv: W-Wind Meteorological Field

Frequency: 1-hourly from 21:00 UTC (instantaneous)

Spatial Grid: 01HR, cubed-sphere on model-level, full horizontal resolution on cube

Dimensions: grid resolution=1440, level=52, time=1

Granule Size: ~2.5 GB

<i>Name</i>	<i>Dim</i>	<i>Description</i>	<i>Units</i>
W	tzyx	vertical velocity	m s-1

inst_15mn_2d_asm_Mx: Single-Level Diagnostics

Frequency: 15-minute from 21:45 UTC (instantaneous)

Spatial Grid: 15MN, single-level, full horizontal resolution on cube

Dimensions: grid resolution=1440, time=1

Granule Size: ~855 MB

<i>Name</i>	<i>Dim</i>	<i>Description</i>	<i>Units</i>
CAPE	tyx	cape for surface parcel	J kg-1
CIN	tyx	inhibition for surface parcel	J kg-1
CWP	tyx	condensed water path	kg m-2
IWP	tyx	ice water path	kg m-2
LWP	tyx	liquid water path	kg m-2
PS	tyx	surface pressure	Pa
QA	tyx	surface specific humidity	1
QS	tyx	surface specific humidity	kg kg-1
QV2M	tyx	2-meter specific humidity	kg kg-1
T2M	tyx	2-meter air temperature	K
TQI	tyx	total precipitable ice water	kg m-2
TQL	tyx	total precipitable liquid water	kg m-2
TQR	tyx	vertically integrated rain	kg m-2
TQS	tyx	vertically integrated snow	kg m-2
TQV	tyx	total precipitable water vapor	kg m-2
TSKIN	tyx	surface skin temperature	K
U10M	tyx	10-meter eastward wind	m s-1
V10M	tyx	10-meter northward wind	m s-1

inst_15mn_2d_prs_Mx: Select-Pressure-Level Diagnostics

Frequency: 15-minute from 21:45 UTC (instantaneous)

Spatial Grid: 15MN, select-pressure-levels, full horizontal resolution on cube

Dimensions: grid resolution=1440, level=4, time=1

Granule Size: ~570 MB

<i>Name</i>	<i>Dim</i>	<i>Description</i>	<i>Units</i>
OMEGA	tzyx	vertical pressure velocity	Pa s-1
RH	tzyx	relative humidity after moist	1

Z	tzyx	edge heights	m
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tavg_01hr_3d_CNVMFC_Mv: cumulative mass flux

Frequency: 1-hourly from 21:30 UTC (time-averaged)

Spatial Grid: 01HR, cubed-sphere on model-level, full horizontal resolution on cube

Dimensions: grid resolution=1440, level=52, time=1

Granule Size: ~2.5 GB

<i>Name</i>	<i>Dim</i>	<i>Description</i>	<i>Units</i>
CNVMFC	tzyx	cumulative mass flux	kg m-2 s-1

tavg_01hr_3d_CNVMFD_Mv: detraining mass flux

Frequency: 1-hourly from 21:30 UTC (time-averaged)

Spatial Grid: 01HR, cubed-sphere on model-level, full horizontal resolution on cube

Dimensions: grid resolution=1440, level=52, time=1

Granule Size: ~2.5 GB

<i>Name</i>	<i>Dim</i>	<i>Description</i>	<i>Units</i>
CNVMFD	tzyx	detraining mass flux	kg m-2 s-1

tavg_01hr_3d_P_Mv: Pressure Meteorological Field

Frequency: 1-hourly from 21:30 UTC (time-averaged)

Spatial Grid: 01HR, cubed-sphere on model-level, full horizontal resolution on cube

Dimensions: grid resolution=1440, level=52, time=1

Granule Size: ~2.5 GB

<i>Name</i>	<i>Dim</i>	<i>Description</i>	<i>Units</i>
P	tzyx	mid level pressure	Pa

tavg_01hr_3d_WU_Mv: WU Meteorological Field

Frequency: 1-hourly from 21:30 UTC (time-averaged)

Spatial Grid: 01HR, cubed-sphere on model-level, full horizontal resolution on cube

Dimensions: grid resolution=1440, level=52, time=1

Granule Size: ~2.5 GB

<i>Name</i>	<i>Dim</i>	<i>Description</i>	<i>Units</i>
WU	tzyx	vertical velocity	m s-1

avg_01hr_3d_WV_Mv: WV Meteorological Field

Frequency: 1-hourly from 21:30 UTC (time-averaged)

Spatial Grid: 01HR, cubed-sphere on model-level, full horizontal resolution on cube

Dimensions: grid resolution=1440, level=52, time=1

Granule Size: ~2.5 GB

<i>Name</i>	<i>Dim</i>	<i>Description</i>	<i>Units</i>
WV	tzyx	vertical velocity	m s-1

avg2d_aer_x: Aerosol 2-D Diagnostics

Frequency: 3-hourly from 22:30 UTC (time-averaged)

Spatial Grid: 03HR, cubed-sphere, full horizontal resolution on cube

Dimensions: grid resolution=1440, time=1

Granule Size: ~7.6 GB

<i>Name</i>	<i>Dim</i>	<i>Description</i>	<i>Units</i>
BCANGSTR	tyx	Black Carbon Angstrom parameter [470-870 nm]	1
BCCMASS	tyx	Black Carbon Column Mass Density	kg m-2
BCDP001	tyx	Black Carbon Dry Deposition Bin 001	kg m-2 s-1
BCDP002	tyx	Black Carbon Dry Deposition Bin 002	kg m-2 s-1
BCEM001	tyx	Black Carbon Emission Bin 001	kg m-2 s-1
BCEM002	tyx	Black Carbon Emission Bin 002	kg m-2 s-1
BCEMAN	tyx	Black Carbon Anthropogenic Emissions	kg m-2 s-1
BCEMBB	tyx	Black Carbon Biomass Burning Emissions	kg m-2 s-1
BCEMBF	tyx	Black Carbon Biofuel Emissions	kg m-2 s-1
BCEXTTAU	tyx	Black Carbon Extinction AOT [550 nm]	1
BCFLUXU	tyx	Black Carbon column u-wind mass flux	kg m-1 s-1
BCFLUXV	tyx	Black Carbon column v-wind mass flux	kg m-1 s-1
BCHYPHIL	tyx	Black Carbon Hydrophobic to Hydrophilic	kg m-2 s-1
BCSCATAU	tyx	Black Carbon Scattering AOT [550 nm]	1
BCSMASS	tyx	Black Carbon Surface Mass Concentration	kg m-3

BCSV	tyx	black carbon tendency due to conv scav	kg m-2 s-1
BCSV001	tyx	Black Carbon Convective Scavenging Bin 001	kg m-2 s-1
BCSV002	tyx	Black Carbon Convective Scavenging Bin 002	kg m-2 s-1
BCWT001	tyx	Black Carbon Wet Deposition Bin 001	kg m-2 s-1
BCWT002	tyx	Black Carbon Wet Deposition Bin 002	kg m-2 s-1
DMSCMASS	tyx	DMS Column Mass Density	kg m-2
DMSSMASS	tyx	DMS Surface Mass Concentration	kg m-3
DUAERIDX	tyx	Dust TOMS UV Aerosol Index	1
DUANGSTR	tyx	Dust Angstrom parameter [470-870 nm]	1
DUCMASS	tyx	Dust Column Mass Density	kg m-2
DUCMASS25	tyx	Dust Column Mass Density - PM 2.5	kg m-2
DUDP001	tyx	Dust Dry Deposition Bin 001	kg m-2 s-1
DUDP002	tyx	Dust Dry Deposition Bin 002	kg m-2 s-1
DUDP003	tyx	Dust Dry Deposition Bin 003	kg m-2 s-1
DUDP004	tyx	Dust Dry Deposition Bin 004	kg m-2 s-1
DUDP005	tyx	Dust Dry Deposition Bin 005	kg m-2 s-1
DUEM001	tyx	Dust Emission Bin 001	kg m-2 s-1
DUEM002	tyx	Dust Emission Bin 002	kg m-2 s-1
DUEM003	tyx	Dust Emission Bin 003	kg m-2 s-1
DUEM004	tyx	Dust Emission Bin 004	kg m-2 s-1
DUEM005	tyx	Dust Emission Bin 005	kg m-2 s-1
DUEXTT25	tyx	Dust Extinction AOT [550 nm] - PM 2.5	1
DUEXTTAU	tyx	Dust Extinction AOT [550 nm]	1
DUEXTTFM	tyx	Dust Extinction AOT [550 nm] - PM 1.0 um	1
DUFLUXU	tyx	Dust column u-wind mass flux	kg m-1 s-1
DUFLUXV	tyx	Dust column v-wind mass flux	kg m-1 s-1
DUSCAT25	tyx	Dust Scattering AOT [550 nm] - PM 2.5	1
DUSCATAU	tyx	Dust Scattering AOT [550 nm]	1
DUSCATFM	tyx	Dust Scattering AOT [550 nm] - PM 1.0 um	1
DUSD001	tyx	Dust Sedimentation Bin 001	kg m-2 s-1
DUSD002	tyx	Dust Sedimentation Bin 002	kg m-2 s-1
DUSD003	tyx	Dust Sedimentation Bin 003	kg m-2 s-1
DUSD004	tyx	Dust Sedimentation Bin 004	kg m-2 s-1
DUSD005	tyx	Dust Sedimentation Bin 005	kg m-2 s-1
DUSMASS	tyx	Dust Surface Mass Concentration	kg m-3
DUSMASS25	tyx	Dust Surface Mass Concentration - PM 2.5	kg m-3
DUSV	tyx	dust tendency due to conv scav	kg m-2 s-1
DUSV001	tyx	Dust Convective Scavenging Bin 001	kg m-2 s-1
DUSV002	tyx	Dust Convective Scavenging Bin 002	kg m-2 s-1

DUSV003	tyx	Dust Convective Scavenging Bin 003	kg m-2 s-1
DUSV004	tyx	Dust Convective Scavenging Bin 004	kg m-2 s-1
DUSV005	tyx	Dust Convective Scavenging Bin 005	kg m-2 s-1
DUWT001	tyx	Dust Wet Deposition Bin 001	kg m-2 s-1
DUWT002	tyx	Dust Wet Deposition Bin 002	kg m-2 s-1
DUWT003	tyx	Dust Wet Deposition Bin 003	kg m-2 s-1
DUWT004	tyx	Dust Wet Deposition Bin 004	kg m-2 s-1
DUWT005	tyx	Dust Wet Deposition Bin 005	kg m-2 s-1
LWI	tyx	land(1) water(0) ice(2) flag	1
OCANGSTR	tyx	Organic Carbon Angstrom parameter [470-870 nm]	1
OCCMASS	tyx	Organic Carbon Column Mass Density	kg m-2
OCDP001	tyx	Organic Carbon Dry Deposition Bin 001	kg m-2 s-1
OCDP002	tyx	Organic Carbon Dry Deposition Bin 002	kg m-2 s-1
OCEM001	tyx	Organic Carbon Emission Bin 001	kg m-2 s-1
OCEM002	tyx	Organic Carbon Emission Bin 002	kg m-2 s-1
OCEMAN	tyx	Organic Carbon Anthropogenic Emissions	kg m-2 s-1
OCEMBB	tyx	Organic Carbon Biomass Burning Emissions	kg m-2 s-1
OCEMBF	tyx	Organic Carbon Biofuel Emissions	kg m-2 s-1
OCEMBG	tyx	Organic Carbon Biogenic Emissions	kg m-2 s-1
OCEXTTAU	tyx	Organic Carbon Extinction AOT [550 nm]	1
OCFLUXU	tyx	Organic Carbon column u-wind mass flux	kg m-1 s-1
OCFLUXV	tyx	Organic Carbon column v-wind mass flux	kg m-1 s-1
OCHYPHIL	tyx	Organic Carbon Hydrophobic to Hydrophilic	kg m-2 s-1
OCSCATAU	tyx	Organic Carbon Scattering AOT [550 nm]	1
OCSMASS	tyx	Organic Carbon Surface Mass Concentration	kg m-3
OCSV	tyx	organic carbon tendency due to conv scav	kg m-2 s-1
OCSV001	tyx	Organic Carbon Convective Scavenging Bin 001	kg m-2 s-1
OCSV002	tyx	Organic Carbon Convective Scavenging Bin 002	kg m-2 s-1
OCWT001	tyx	Organic Carbon Wet Deposition Bin 001	kg m-2 s-1
OCWT002	tyx	Organic Carbon Wet Deposition Bin 002	kg m-2 s-1
SO2CMASS	tyx	SO2 Column Mass Density	kg m-2
SO2EMAN	tyx	SO2 Anthropogenic Emissions	kg m-2 s-1
SO2EMBB	tyx	SO2 Biomass Burning Emissions	kg m-2 s-1
SO2EMVE	tyx	SO2 Volcanic (explosive) Emissions	kg m-2 s-1
SO2EMVN	tyx	SO2 Volcanic (non-explosive) Emissions	kg m-2 s-1
SO2SMASS	tyx	SO2 Surface Mass Concentration	kg m-3
SO4CMASS	tyx	SO4 Column Mass Density	kg m-2
SO4EMAN	tyx	SO4 Anthropogenic Emissions	kg m-2 s-1
SO4SMASS	tyx	SO4 Surface Mass Concentration	kg m-3

SSAERIDX	tyx	Sea Salt TOMS UV Aerosol Index	1
SSANGSTR	tyx	Sea Salt Angstrom parameter [470-870 nm]	1
SSCMASS	tyx	Sea Salt Column Mass Density	kg m ⁻²
SSCMASS25	tyx	Sea Salt Column Mass Density - PM 2.5	kg m ⁻²
SSDP001	tyx	Sea Salt Dry Deposition Bin 001	kg m ⁻² s ⁻¹
SSDP002	tyx	Sea Salt Dry Deposition Bin 002	kg m ⁻² s ⁻¹
SSDP003	tyx	Sea Salt Dry Deposition Bin 003	kg m ⁻² s ⁻¹
SSDP004	tyx	Sea Salt Dry Deposition Bin 004	kg m ⁻² s ⁻¹
SSDP005	tyx	Sea Salt Dry Deposition Bin 005	kg m ⁻² s ⁻¹
SSEM001	tyx	Sea Salt Emission Bin 001	kg m ⁻² s ⁻¹
SSEM002	tyx	Sea Salt Emission Bin 002	kg m ⁻² s ⁻¹
SSEM003	tyx	Sea Salt Emission Bin 003	kg m ⁻² s ⁻¹
SSEM004	tyx	Sea Salt Emission Bin 004	kg m ⁻² s ⁻¹
SSEM005	tyx	Sea Salt Emission Bin 005	kg m ⁻² s ⁻¹
SSEXTT25	tyx	Sea Salt Extinction AOT [550 nm] - PM 2.5	1
SSEXTTAU	tyx	Sea Salt Extinction AOT [550 nm]	1
SSEXTTFM	tyx	Sea Salt Extinction AOT [550 nm] - PM 1.0 um	1
SSFLUXU	tyx	Sea Salt column u-wind mass flux	kg m ⁻¹ s ⁻¹
SSFLUXV	tyx	Sea Salt column v-wind mass flux	kg m ⁻¹ s ⁻¹
SSSCAT25	tyx	Sea Salt Scattering AOT [550 nm] - PM 2.5	1
SSSCATAU	tyx	Sea Salt Scattering AOT [550 nm]	1
SSSCATFM	tyx	Sea Salt Scattering AOT [550 nm] - PM 1.0 um	1
SSSD001	tyx	Sea Salt Sedimentation Bin 001	kg m ⁻² s ⁻¹
SSSD002	tyx	Sea Salt Sedimentation Bin 002	kg m ⁻² s ⁻¹
SSSD003	tyx	Sea Salt Sedimentation Bin 003	kg m ⁻² s ⁻¹
SSSD004	tyx	Sea Salt Sedimentation Bin 004	kg m ⁻² s ⁻¹
SSSD005	tyx	Sea Salt Sedimentation Bin 005	kg m ⁻² s ⁻¹
SSSMASS	tyx	Sea Salt Surface Mass Concentration	kg m ⁻³
SSSMASS25	tyx	Sea Salt Surface Mass Concentration - PM 2.5	kg m ⁻³
SSSV	tyx	sea salt tendency due to conv scav	kg m ⁻² s ⁻¹
SSSV001	tyx	Sea Salt Convective Scavenging Bin 001	kg m ⁻² s ⁻¹
SSSV002	tyx	Sea Salt Convective Scavenging Bin 002	kg m ⁻² s ⁻¹
SSSV003	tyx	Sea Salt Convective Scavenging Bin 003	kg m ⁻² s ⁻¹
SSSV004	tyx	Sea Salt Convective Scavenging Bin 004	kg m ⁻² s ⁻¹
SSSV005	tyx	Sea Salt Convective Scavenging Bin 005	kg m ⁻² s ⁻¹
SSWT001	tyx	Sea Salt Wet Deposition Bin 001	kg m ⁻² s ⁻¹
SSWT002	tyx	Sea Salt Wet Deposition Bin 002	kg m ⁻² s ⁻¹
SSWT003	tyx	Sea Salt Wet Deposition Bin 003	kg m ⁻² s ⁻¹
SSWT004	tyx	Sea Salt Wet Deposition Bin 004	kg m ⁻² s ⁻¹

SSWT005	tyx	Sea Salt Wet Deposition Bin 005	kg m-2 s-1
SUANGSTR	tyx	SO4 Angstrom parameter [470-870 nm]	1
SUDP001	tyx	Sulfate Dry Deposition Bin 001	kg m-2 s-1
SUDP002	tyx	Sulfate Dry Deposition Bin 002	kg m-2 s-1
SUDP003	tyx	Sulfate Dry Deposition Bin 003	kg m-2 s-1
SUDP004	tyx	Sulfate Dry Deposition Bin 004	kg m-2 s-1
SUEM001	tyx	Sulfate Emission Bin 001	kg m-2 s-1
SUEM002	tyx	Sulfate Emission Bin 002	kg m-2 s-1
SUEM003	tyx	Sulfate Emission Bin 003	kg m-2 s-1
SUEM004	tyx	Sulfate Emission Bin 004	kg m-2 s-1
SUEXTTAU	tyx	SO4 Extinction AOT [550 nm]	1
SUFLUXU	tyx	SO4 column u-wind mass flux	kg m-1 s-1
SUFLUXV	tyx	SO4 column v-wind mass flux	kg m-1 s-1
SUPMSA	tyx	MSA Prod from DMS Oxidation [column]	kg m-2 s-1
SUPSO2	tyx	SO2 Prod from DMS Oxidation [column]	kg m-2 s-1
SUPSO4AQ	tyx	SO4 Prod from Aqueous SO2 Oxidation [column]	kg m-2 s-1
SUPSO4G	tyx	SO4 Prod from Gaseous SO2 Oxidation [column]	kg m-2 s-1
SUPSO4WT	tyx	SO4 Prod from Aqueous SO2 Oxidation (wet dep) [column]	kg m-2 s-1
SUSCATAU	tyx	SO4 Scattering AOT [550 nm]	1
SUSV	tyx	sulfate tendency due to conv scav	kg m-2 s-1
SUSV001	tyx	Sulfate Convective Scavenging Bin 001	kg m-2 s-1
SUSV002	tyx	Sulfate Convective Scavenging Bin 002	kg m-2 s-1
SUSV003	tyx	Sulfate Convective Scavenging Bin 003	kg m-2 s-1
SUSV004	tyx	Sulfate Convective Scavenging Bin 004	kg m-2 s-1
SUWT001	tyx	Sulfate Wet Deposition Bin 001	kg m-2 s-1
SUWT002	tyx	Sulfate Wet Deposition Bin 002	kg m-2 s-1
SUWT003	tyx	Sulfate Wet Deposition Bin 003	kg m-2 s-1
SUWT004	tyx	Sulfate Wet Deposition Bin 004	kg m-2 s-1
TOTANGSTR	tyx	Total Aerosol Angstrom parameter [470-870 nm]	1
TOTEXTTAU	tyx	Total Aerosol Extinction AOT [550 nm]	1
TOTSCATAU	tyx	Total Aerosol Scattering AOT [550 nm]	1

geosgcm_surf: Surface Diagnostics

Frequency: 3-hourly from 21:30 UTC (time-averaged)

Spatial Grid: 03HR, cubed-sphere, full horizontal resolution on cube

Dimensions: grid resolution=1440, time=1

Granule Size: ~3.0 GB

<i>Name</i>	<i>Dim</i>	<i>Description</i>	<i>Units</i>
ALBNF	tyx	surface albedo for near infrared diffuse	1
ALBNR	tyx	surface albedo for near infrared beam	1
ALBVF	tyx	surface albedo for visible diffuse	1
ALBVR	tyx	surface albedo for visible beam	1
ASNOW	tyx	fractional area of land snowcover	1
BASEFLOW	tyx	baseflow flux	kg m-2 s-1
CCWP	tyx	grid mean conv cond water path diagnostic	kg m-2
CLDHI	tyx	cloud area fraction for high clouds	1
CLDLO	tyx	cloud area fraction for low clouds	1
CLDMD	tyx	cloud area fraction for middle clouds	1
CLDTT	tyx	total cloud area fraction	1
CM	tyx	surface exchange coefficient for momentum	kg m-2 s-1
CNORIG	tyx	moved 2d source of cnv rain	kg kg-1 s-1
CQ	tyx	surface exchange coefficient for moisture	kg m-2 s-1
CT	tyx	surface exchange coefficient for heat	kg m-2 s-1
CU2DRAINMOVE	tyx	moved 2d source of cnv rain	kg kg-1 s-1
CU2DSNOWMOVE	tyx	moved 2d source of cnv snow	kg kg-1 s-1
FRSEAICE	tyx	ice covered fraction of tile	1
GRN	tyx	greenness fraction	1
GUST	tyx	gustiness	m s-1
LAI	tyx	leaf area index	1
LSORIG	tyx	moved 2d source of cnv rain	kg kg-1 s-1
OXFILL	tyx	vertically integrated ox adjustment from filling	kg m-2 s-1
PCU	tyx	convective rainfall	kg m-2 s-1
PLS	tyx	large scale rainfall	kg m-2 s-1
Q10M	tyx	10-meter specific humidity	kg kg-1
QHAT	tyx	effective surface specific humidity	kg kg-1
QVFILL	tyx	vertically integrated qv adjustment from filling	kg m-2 s-1
RASTIME	tyx	timescale for deep RAS plumes	s
RHOS	tyx	air density at surface	kg m-3
RUNOFF	tyx	overland runoff including throughflow	kg m-2 s-1
SNOMAS	tyx	snow mass	kg m-2
SPEED	tyx	surface wind speed	m s-1
SPLAND	tyx	rate of spurious land energy source	W m-2
SPWATR	tyx	rate of spurious land water source	kg m-2 s-1

T10M	tyx	10-meter air temperature	K
TA	tyx	surface air temperature	K
TAUHI	tyx	in cloud optical thickness of high clouds(EXPORT)	1
TAULO	tyx	in cloud optical thickness of low clouds	1
TAUMD	tyx	in cloud optical thickness of middle clouds	1
TAUTT	tyx	in cloud optical thickness of all clouds	1
THAT	tyx	effective surface skin temperature	K
TROPPB	tyx	tropopause pressure based on blended estimate	Pa
TROPPT	tyx	tropopause pressure based on thermal estimate	Pa
TROPPV	tyx	tropopause pressure based on EPV estimate	Pa
TROPQ	tyx	tropopause specific humidity using blended TROPP estimate	kg kg-1
TROPT	tyx	tropopause temperature using blended TROPP estimate	K
TSOIL1	tyx	soil temperatures layer 1	K
TSOIL2	tyx	soil temperatures layer 2	K
U2M	tyx	2-meter eastward wind	m s-1
U50M	tyx	50-meter eastward wind	m s-1
US	tyx	surface eastward wind	m s-1
USTAR	tyx	surface velocity scale	m s-1
V2M	tyx	2-meter northward wind	m s-1
V50M	tyx	50-meter northward wind	m s-1
VARFLT	tyx	isotropic variance of filtered topography	m+2
VEGTYPE	tyx	vegetation type	1
VENT	tyx	surface ventilation velocity	m s-1
VS	tyx	surface northward wind	m s-1
WET1	tyx	surface soil wetness	1
WET2	tyx	root zone soil wetness	1
WET3	tyx	ave prof soil moisture	1
Z0	tyx	surface roughness	m
Z0H	tyx	surface roughness for heat	m

tavg_15mn_2d_flux_Mx: Surface Flux Diagnostics

Frequency: 15-minute from 21:52 UTC (time-averaged)

Spatial Grid: 15MN, single-level, full horizontal resolution on cube

Dimensions: grid resolution=1440, time=1

Granule Size: ~1.9 GB

<i>Name</i>	<i>Dim</i>	<i>Description</i>	<i>Units</i>
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ALBEDO	tyx	surface albedo	1
EFLUX	tyx	total latent energy flux	W m ⁻²
EMIS	tyx	surface emissivity	1
EVAP	tyx	evaporation from turbulence	kg m ⁻² s ⁻¹
FLNS	tyx	surface net downward longwave flux	W m ⁻²
FLNSC	tyx	surface net downward longwave flux assuming clear sky	W m ⁻²
FLNSCNA	tyx	surface net downward longwave flux assuming clear sky and no aerosol	W m ⁻²
HFLUX	tyx	sensible heat flux from turbulence	W m ⁻²
LWS	tyx	surface absorbed longwave radiation	W m ⁻²
LWSC	tyx	surface absorbed longwave radiation assuming clear sky	W m ⁻²
LWSCNA	tyx	surface absorbed longwave radiation assuming clear sky and no aerosol	W m ⁻²
OLR	tyx	upwelling longwave flux at toa	W m ⁻²
OLRC	tyx	upwelling longwave flux at toa assuming clear sky	W m ⁻²
OLRCNA	tyx	upwelling longwave flux at toa assuming clear sky and no aerosol	W m ⁻²
OSR	tyx	toa outgoing shortwave flux	W m ⁻²
OSRCLR	tyx	toa outgoing shortwave flux assuming clear sky	W m ⁻²
PBLH	tyx	planetary boundary layer height	m
PRECANV	tyx	anvil precipitation	kg m ⁻² s ⁻¹
PRECCON	tyx	convective precipitation	kg m ⁻² s ⁻¹
PRECLSC	tyx	nonanvil large scale precipitation	kg m ⁻² s ⁻¹
PRECSNO	tyx	snowfall	kg m ⁻² s ⁻¹
PRECTOT	tyx	total precipitation	kg m ⁻² s ⁻¹
RADSRF	tyx	net downwelling radiation at surface	W m ⁻²
RADSWT	tyx	toa incoming shortwave flux	W m ⁻²
SFCEM	tyx	longwave flux emitted from surface	W m ⁻²
SWCLDPRS	tyx	cloud top pressure	Pa
SWCLDTMP	tyx	cloud top temperature	K
SWGDOWN	tyx	surface incoming shortwave flux	W m ⁻²
SWGDOWNC	tyx	surface incoming shortwave flux assuming clear sky	W m ⁻²
SWGNET	tyx	surface net downward shortwave flux	W m ⁻²
SWGNETC	tyx	surface net downward shortwave flux assuming clear sky	W m ⁻²
SWGNETCNA	tyx	surface net downward shortwave flux assuming clear sky and no aerosol	W m ⁻²
SWGNETNA	tyx	surface net downward shortwave flux assuming no aerosol	W m ⁻²
SWTNET	tyx	toa net downward shortwave flux	W m ⁻²
SWTNETC	tyx	toa net downward shortwave flux assuming clear sky	W m ⁻²
SWTNETCNA	tyx	toa net downward shortwave flux assuming clear sky and	W m ⁻²

		no aerosol	
SWTNETNA	tyx	toa net downward shortwave flux assuming no aerosol	W m-2
TAUX	tyx	eastward surface stress	N m-2
TAUY	tyx	northward surface stress	N m-2

geosgcm_pressure: Mid-level Pressures

Frequency: daily from 09:00 UTC (time-averaged)

Spatial Grid: 24HR, cubed-sphere, full horizontal resolution on cube

Dimensions: grid resolution=1440, level=52, time=1

Granule Size: ~2.5 GB

<i>Name</i>	<i>Dim</i>	<i>Description</i>	<i>Units</i>
P	tzyx	mid level pressure	Pa

geosgcm_tend: Tendency Diagnostics

Frequency: daily from 09:00 UTC (time-averaged)

Spatial Grid: 24HR, cubed-sphere, full horizontal resolution on cube

Dimensions: grid resolution=1440, level=52, time=1

Granule Size: ~48.3 GB

<i>Name</i>	<i>Dim</i>	<i>Description</i>	<i>Units</i>
DPDTPHY	tzyx	tendency of pressure at bottom edges levels due to physics	Pa s-1
DQVDTCHM	tzyx	tendency of water vapor mixing ratio due to chemistry	kg kg-1 s-1
DQVDTDYN	tzyx	tendency of specific humidity due to dynamics	kg/kg/s
DQVDTMST	tzyx	specific humidity tendency due to moist	kg kg-1 s-1
DQVDTTRB	tzyx	tendency of specific humidity due to turbulence	kg kg-1 s-1
DTDTDYN	tzyx	tendency of air temperature due to dynamics	K s-1
DTDTFRI	tzyx	tendency of air temperature due to friction	K s-1
DTDTGWD	tzyx	air temperature tendency due to GWD	K s-1
DTDTLW	tzyx	air temperature tendency due to longwave	K s-1
DTDTMST	tzyx	tendency of air temperature due to moist processes	K s-1
DTDTSW	tzyx	air temperature tendency due to shortwave	K s-1
DTDTTRB	tzyx	tendency of air temperature due to turbulence	K s-1
DUDTDYN	tzyx	tendency of eastward wind due to dynamics	m/s/s
DUDTGWD	tzyx	tendency of eastward wind due to GWD	m s-2
DUDTMST	tzyx	zonal wind tendency due to moist	m s-2

DUDTTRB	tzyx	tendency of eastward wind due to turbulence	m s-2
DVDTDYN	tzyx	tendency of northward wind due to dynamics	m/s/s
DVDTGWD	tzyx	tendency of northward wind due to GWD	m s-2
DVDTMST	tzyx	meridional wind tendency due to moist	m s-2
DVDTTRB	tzyx	tendency of northward wind due to turbulence	m s-2

geosgcm_turb: Turbulence Diagnostics

Frequency: *daily from 09:00 UTC (time-averaged)*

Spatial Grid: *24HR, cubed-sphere, full horizontal resolution on cube*

Dimensions: *grid resolution=1440, level=52, time=1*

Granule Size: *~14.5 GB*

<i>Name</i>	<i>Dim</i>	<i>Description</i>	<i>Units</i>
KH	tzyx	total scalar diffusivity	m+2 s-1
KHLS	tzyx	scalar diffusivity from Louis	m+2 s-1
KHRAD	tzyx	radiation driven scalar diffusivity from Lock scheme	m+2 s-1
KHSFC	tzyx	surface driven scalar diffusivity from Lock scheme	m+2 s-1
KM	tzyx	total momentum diffusivity	m+2 s-1
RI	tzyx	Richardson number from Louis	1