

Prescribed atmosphere: JRA55-do via YATM

1958–2017, 3-hourly, 0.5625° resolution

OASIS3-MCT2

Downward shortwave & longwave radiation fluxes

Rainfall, snowfall & runoff fluxes

Surface pressure

10 m air temperature & specific humidity

10 m wind vector

Global sea ice model: CICE 5.1.2

1°, 0.25° or 0.1° tripolar grid; 4 ice layers + 1 snow; EVP; 5 thickness categories

OASIS3-MCT2

Ocean surface stress vector

Rainfall, snowfall & runoff

Ice melting and formation water fluxes

Salt flux, net heat flux

Shortwave flux penetrating ice

Downward longwave flux

Latent and sensible heat fluxes

Ice concentration

Sea surface temperature

Sea surface salinity

Sea surface velocity vector

Frazil ice formation energy

Global ocean model: MOM 5.1

Same horizontal grid as CICE; 50 or 75 z^* vertical levels