

Decadal Climate Prediction Project (DCPP CMIP7) – component A on retrospective prediction

Set 1 – minimal 1980-present (4120 yrs = ~3.5 mill h NorESM2-LM or ~10 mill h NorESM2-MM)

- **Spinup** (300 yrs): 1970-1979, 30 mem, branched from 3 historical DECK runs, 10 yr length
- **Free** (600 yrs): 1980-2039, 10 mem, 60 yr length
- **Assim** (1380 yrs): 1980-2025, 30 mem, 46 yr length
- **Decadal hindcasts** (1265 yrs): 1980-2024 every 2nd yr (23 starts), 10 mem, 5.5 yr length
- **Multiannual (May-init) hindcasts** (575 yrs): 1980-2024 every 2nd yr (23 starts), 10 mem, 2.5 yr

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Set 2 – extension 1980-present (4140 yrs = ~3.5 mill h NorESM2-LM or ~10 mill h NorESM2-MM)

- **Decadal hindcasts** start every yr (1265 yrs): 1980-2024 (23 starts), 10 mem, 5.5 yr length
- **Decadal hindcasts** extend 5 yrs (2300 yrs): 1980-2024 (46 starts), 10 mem, 5 yr length
- **Multiannual (May-init) hindcasts** start every yr (575 yrs): 1980-2024 (23 starts), 10 mem, 2.5 yr

Timing/prioritization of NorCPM's production:

Set 1 (4120 yrs) -> Set 2 (4140 yrs) -> Set 3 (1900 yrs) -> Set 4 (1300 yrs)

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Set 3 – backward-extension minimal (1900 yrs = ~1.5 mill h NorESM2-LM or ~4.5 mill h NorESM2-MM)

- **Spinup1960** (300 yrs): 1950-1959, 30 mem, branched from 3 historical DECK runs, 10 yr length
- **Free1960-1979** (200 yrs): 1960-1979, 10 mem, 20 yr length
- **Assim1960-1979** (600 yrs): 1960-1979, 30 mem, 20 yr length
- **Decadal1960-1979** (550 yrs): 1960-1979 every 2nd yr (10 starts), 10 mem, 5.5 yr length
- **Multiannual1960-1979** (250 yrs): 1960-1979 every 2nd yr (10 starts), 10 mem, 2.5 yr length

Set 4 – backward-extension more (1300 yrs = ~1 mill h NorESM2-LM or ~3 mill h NorESM2-MM)

- **Decadal1960-1979** start every yr (550 yrs): 1960-1979 (10 starts), 10 mem, 5.5 yr length
- **Decadal1960-1979** extend 5 yrs (500 yrs) 1960-1979 (10 starts), 10 mem, 5 yr length
- **Multiannual1960-1979** start every yr (250 yrs): 1960-1979 (10 starts), 10 mem, 2.5 yr length

Timing/prioritization of NorCPM's production:

Set 1 (4120 yrs) -> Set 2 (4140 yrs) -> Set 3 (1900 yrs) -> Set 4 (1300 yrs)