Default Map Page

Select Map Area (1-10): 0

1 = Global (time: 0:30 to 1:20)
2 = U.S./Canada (time: 0:30 to 1:40)
3 = Contiguous U.S. (time: 0:30 to 1:50)
4 = Alaska (time: 0:30 to 1:30) ☐ Indigenous names
5 = Alaska and NW Canada (time: 0:30 to 1:15)
6 = Polar (time: 0:30 to 1:30) (60 to 90) North ☑
7 = Europe (time: 0:30 to 1:20)
8 = Pacific Northwest (time: 0:30 to 1:35)
9 = U.S. Pacific Islands (time: 0:30 to 1:25)
10 = Country, State, Province, or Box (all Plate Carree)

Country India

Countries (e.g., Country New Zealand)
States (e.g., State New York)
Canada provinces/territories (e.g., Canada Manitoba)
Box, N. Lat, S. Lat, W. Lon, E. Lon (Example: Box,45,25,-120,-50)

Select Map Type (1-9): 1

1 = Ranks (since 1940)
2 = Departure From Normal (not clouds/wind)
3 = Below, Near, Above Normal (slower)
4 = Target Year Values (not wind)
5 = Normal Values (not wind)
6 = 50 or 75-Year trend (8-10 mins for new run)
7 = 50-Year ENSO Season Correlation (6-10 mins for new run)
8 = SPI (precip auto selected; 8-mins for new run)
9 = Composite ENSO or List of Years (6-mins for new run)

Ranks / trend start year 1940

Note: For periods that wrap around New Year, the start year should by the year at the start of the period. For 1974-75 to 2023-24, (50 years), enter 1974 here (end year should be most current year).

Choose Map Theme (1-8): 1

Available themes: 1 = t2m, 2 = precip, 3 = snow, 4 = sst , 5 = dewpt, 6 = clouds, 7 = wind, 8 = seaice

Map Elements (Check top row for most N. American maps)
Lower 48 States ☑ U.S. Counties ☑ Canada Provinces ☑
Major Rivers ☐ U.S. Interstates ☐ Gridlines ☐
NWS WFOs ☐ NPS Units ☐ Climate Divs ☐
Major World Cities ☐ World Roads (adds 1:00) ☐

Last month to start evaluation (e.g., 2 for Feb): 1

Number of months (up to 12) to evaluate (e.g., 3 for Dec-Feb): 1

Year of last month for assessment: 2024

Note 1: Do not select a date in the future!
Note 2: Make sure that your period is not 1939-40. There is no 1939 data.
Note 3: Even when generating normals, make sure not to pick a date in the future.

Values or Departure strip (1=Values, 2=Departure): 1
Show Values or Departure strip (1=Yes, 2=No): 1

Begin Climo 1991 **End** Climo 2020

Central Longitude (Arctic Only) 0
(Used for Map Type options 2 and 3 above)

ENSO Section Only ONI Min -5.0 ONI Max 5.0 [Use to select from a range of average ONI val; or enter list of years manually below.]

OR List of years

Map Subtitle (used when a list of years is entered) 20 chars or less

Above/Below (1=Above/2=Below): 1 100.0 From Climo. Use Detrended Climatology (ONI or list of years) ☑

[Note 1: Only Used if Map Type is 9. Takes 6 mins for new query. Min of 4+ years and separated by commas has priority. For DJF use end year.]
[Note 2: For the count of years above the trendline, units are % avg for snow and precip and clouds. Specify units below for temp, dew pt, and wind.

Units -> Metric or Imperial (1 = Metric, 2 = Imperial): 1

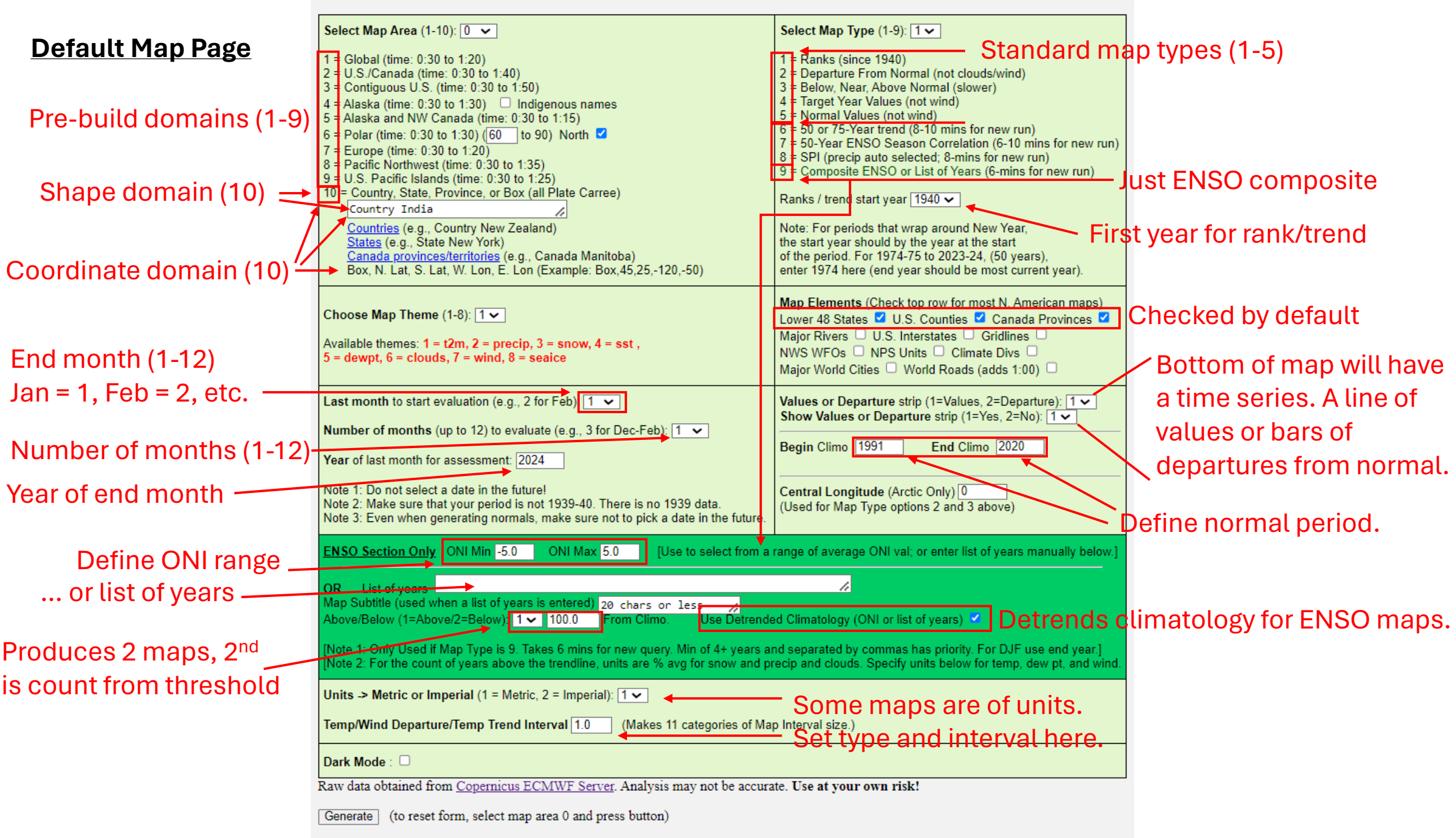
Temp/Wind Departure/Temp Trend Interval 1.0 (Makes 11 categories of Map Interval size.)

Dark Mode : ☐

Raw data obtained from Copernicus ECMWF Server. Analysis may not be accurate. **Use at your own risk!**

Generate (to reset form, select map area 0 and press button)

Default Map Page



General Notes

A NetCDF file is generated for each new query. The program first looks to see if one exists. If it does, then the program will take 30-45 seconds to run. If one does not exist, it takes 45 seconds to 1.5 minutes to do a query (May Types 1-5). The Trend, ENSO Correlation, and SPI take 6-10 minutes if no NetCDF exists. Once it is created, it takes 30-45 seconds. The ENSO composite maps are slower than Map Types 1-5, but faster than Map Types 6-8.

For the month year to map, the year is the year of the end month if it goes across the year; e.g, Dec-Feb uses the Feb year. In the Select Map Type section, the year is the beginning year; e.g, Dec-Feb uses the Dec year. A 50-year trend of Dec 1974-Feb 1975 to Dec 2023-Feb 2024, will use 2024 as the analysis year and 1974 as the start year. This is inconsistent, but necessary.

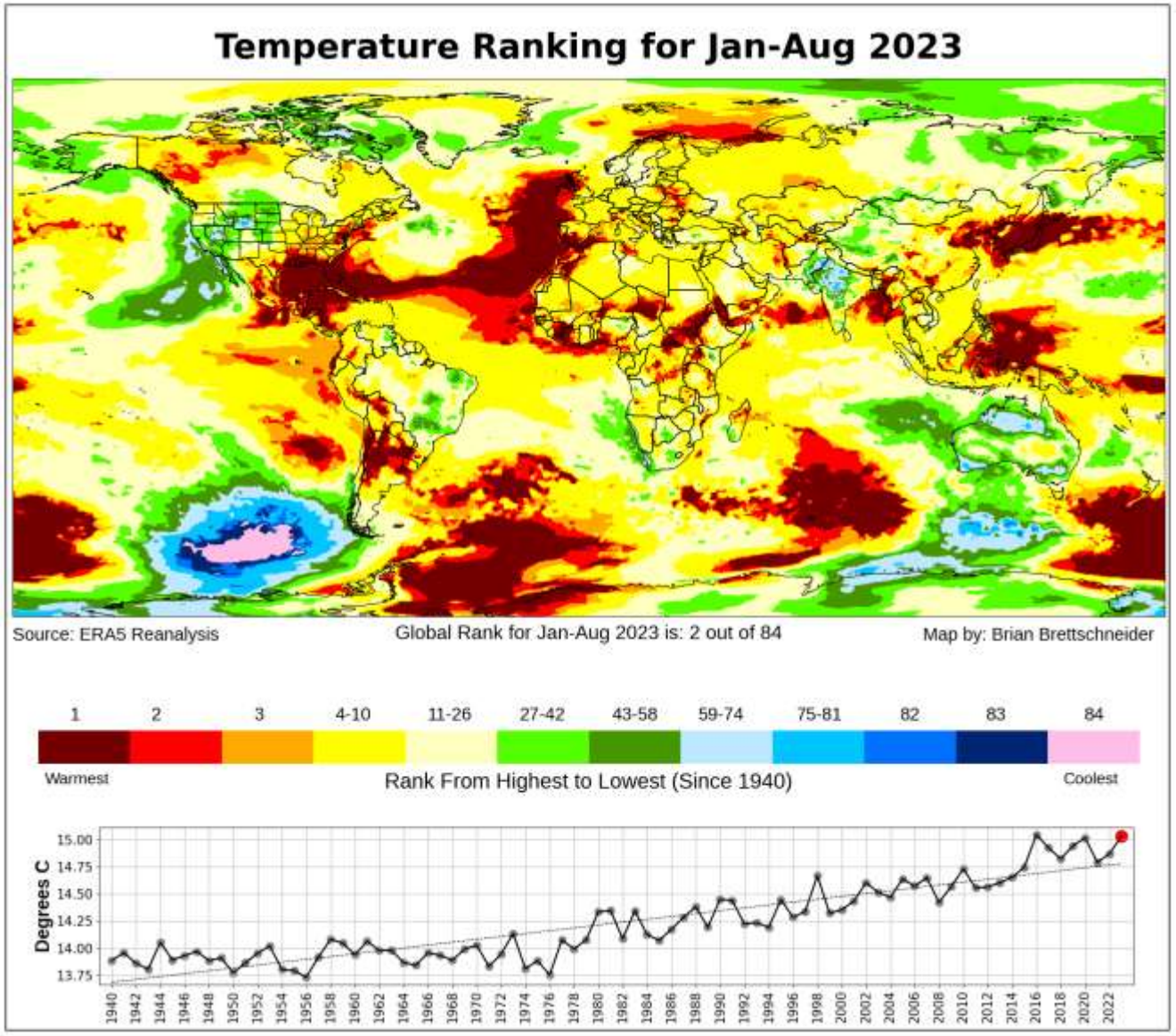
Some of the mapping themes add extra time to the process. Counties add ~5 extra seconds. World Roads add up to an extra minute.

Red boxes are put around options that are different than the default options. The target year always has a red box.

Rank Map Examples

Global Jan-Aug 2023 Temperature Ranking

Uses full period of record
Metric values time series strip on bottom
No other map elements added



NOTE: The page *should* grab new monthly data on the 6th or 7th of the new month.

Select Map Area (1-10): 1

1 = Global (time: 0:30 to 1:20)
2 = U.S./Canada (time: 0:30 to 1:40)
3 = Contiguous U.S. (time: 0:30 to 1:50)
4 = Alaska (time: 0:30 to 1:30) ☐ Indigenous names
5 = Alaska and NW Canada (time: 0:30 to 1:15)
6 = Polar (time: 0:30 to 1:30) (60 to 90) North ☑
7 = Europe (time: 0:30 to 1:20)
8 = Pacific Northwest (time: 0:30 to 1:35)
9 = U.S. Pacific Islands (time: 0:30 to 1:25)
10 = Country, State, Province, or Box (all Plate Carree)
Country India
Countries (e.g., Country New Zealand)
States (e.g., State New York)
Canada provinces/territories (e.g., Canada Manitoba)
Box, N. Lat, S. Lat, W. Lon, E. Lon (Example: Box,45,25,-120,-50)

Select Map Type (1-9): 1

1 = Ranks (since 1940)
2 = Departure From Normal (not clouds/wind)
3 = Below, Near, Above Normal (slower)
4 = Target Year Values (not wind)
5 = Normal Values (not wind)
6 = 50 or 75-Year trend (8-10 mins for new run)
7 = 50-Year ENSO Season Correlation (6-10 mins for new run)
8 = SPI (precip auto selected; 8-mins for new run)
9 = Composite ENSO or List of Years (6-mins for new run)

Ranks / trend start year 1940

Note: For periods that wrap around New Year, the start year should by the year at the start of the period. For 1974-75 to 2023-24, (50 years), enter 1974 here (end year should be most current year).

Choose Map Theme (1-8): 1

Available themes: 1 = t2m, 2 = precip, 3 = snow, 4 = sst , 5 = dewpt, 6 = clouds, 7 = wind, 8 = seaice

Map Elements (Check top row for most N. American maps)
Lower 48 States ☐ U.S. Counties ☐ Canada Provinces ☐
Major Rivers ☐ U.S. Interstates ☐ Gridlines ☐
NWS WFOs ☐ NPS Units ☐ Climate Divs ☐
Major World Cities ☐ World Roads (adds 1:00) ☐

Last month to start evaluation (e.g., 2 for Feb): 8

Number of months (up to 12) to evaluate (e.g., 3 for Dec-Feb): 8

Year of last month for assessment: 2023

Note 1: Do not select a date in the future!
Note 2: Make sure that your period is not 1939-40. There is no 1939 data.
Note 3: Even when generating normals, make sure not to pick a date in the future.

Values or Departure strip (1=Values, 2=Departure): 1
Show Values or Departure strip (1=Yes, 2=No): 1

Begin Climo 1991 **End** Climo 2020

Central Longitude (Arctic Only) 0
(Used for Map Type options 2 and 3 above)

ENSO Section Only ONI Min -5.0 ONI Max 5.0 [Use to select from a range of average ONI val; or enter list of years manually below.]

OR List of years
Map Subtitle (used when a list of years is entered) 20 chars or less
Above/Below (1=Above/2=Below): 1 100.0 From Climo. Use Detrended Climatology (ONI or list of years) ☑

[Note 1: Only Used if Map Type is 9. Takes 6 mins for new query. Min of 4+ years and separated by commas has priority. For DJF use end year.]
[Note 2: For the count of years above the trendline, units are % avg for snow and precip and clouds. Specify units below for temp, dew pt, and wind.

Units -> Metric or Imperial (1 = Metric, 2 = Imperial): 1

Temp/Wind Departure/Temp Trend Interval 1.0 (Makes 11 categories of Map Interval size.)

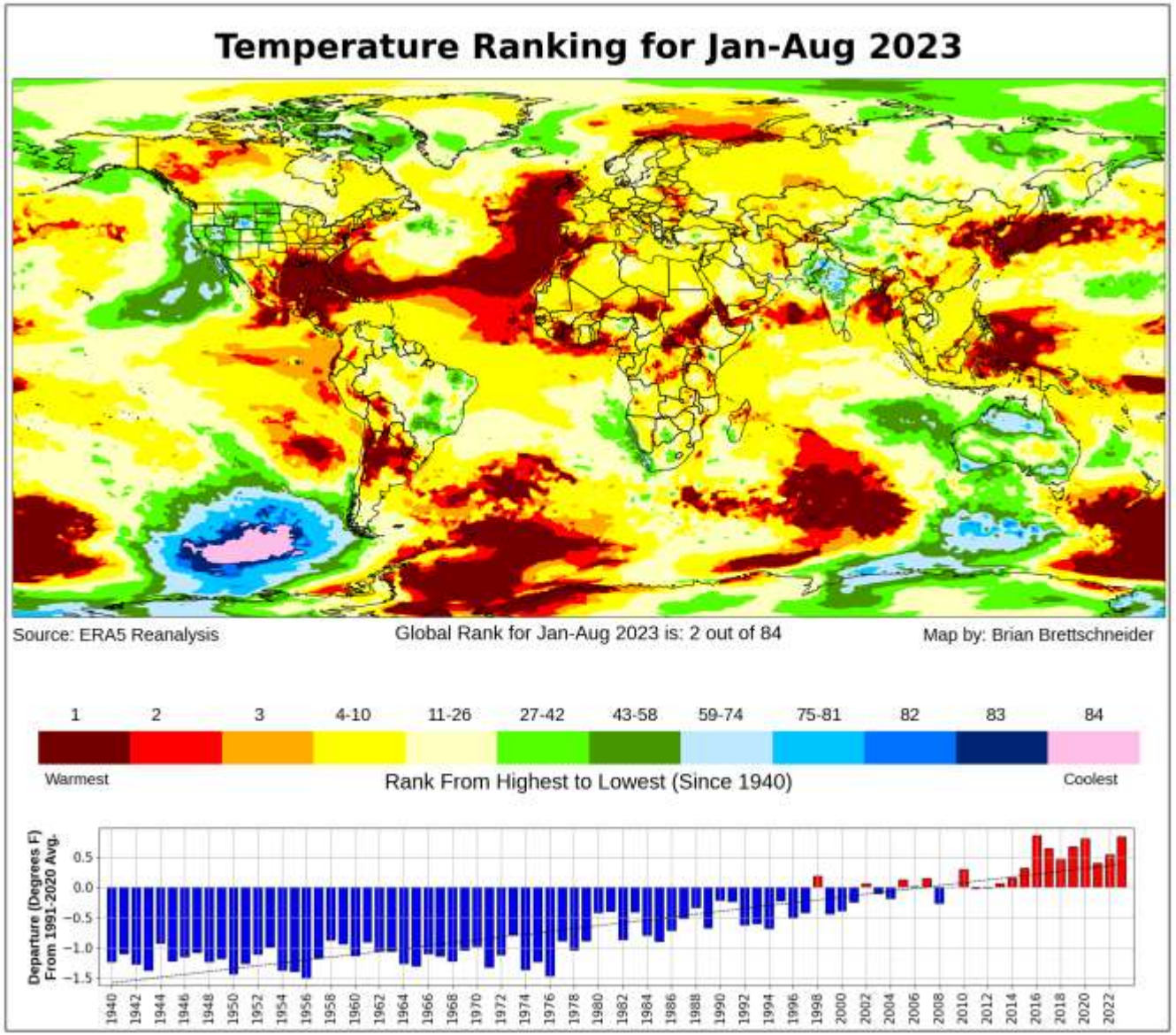
Dark Mode : ☐

Raw data obtained from Copernicus ECMWF Server. Analysis may not be accurate. **Use at your own risk!**

Generate (to reset form, select map area 0 and press button)

Global Jan-Aug 2023 Temperature Ranking

Uses full period of record
Imperial departure time series strip on bottom
No other map elements added



Select Map Area (1-10) 1

1 = Global (time: 0:30 to 1:20)
2 = U.S./Canada (time: 0:30 to 1:40)
3 = Contiguous U.S. (time: 0:30 to 1:50)
4 = Alaska (time: 0:30 to 1:30) ☐ Indigenous names
5 = Alaska and NW Canada (time: 0:30 to 1:15)
6 = Polar (time: 0:30 to 1:30) (60 to 90) North ☑
7 = Europe (time: 0:30 to 1:20)
8 = Pacific Northwest (time: 0:30 to 1:35)
9 = U.S. Pacific Islands (time: 0:30 to 1:25)
10 = Country, State, Province, or Box (all Plate Carree)
Country India
Countries (e.g., Country New Zealand)
States (e.g., State New York)
Canada provinces/territories (e.g., Canada Manitoba)
Box, N. Lat, S. Lat, W. Lon, E. Lon (Example: Box,45,25,-120,-50)

Select Map Type (1-9): 1

1 = Ranks (since 1940)
2 = Departure From Normal (not clouds/wind)
3 = Below, Near, Above Normal (slower)
4 = Target Year Values (not wind)
5 = Normal Values (not wind)
6 = 50 or 75-Year trend (8-10 mins for new run)
7 = 50-Year ENSO Season Correlation (6-10 mins for new run)
8 = SPI (precip auto selected; 8-mins for new run)
9 = Composite ENSO or List of Years (6-mins for new run)

Ranks / trend start year 1940

Note: For periods that wrap around New Year, the start year should by the year at the start of the period. For 1974-75 to 2023-24, (50 years), enter 1974 here (end year should be most current year).

Choose Map Theme (1-8): 1

Available themes: 1 = t2m, 2 = precip, 3 = snow, 4 = sst , 5 = dewpt, 6 = clouds, 7 = wind, 8 = seaice

Map Elements (Check top row for most N. American maps)
Lower 48 States ☐ U.S. Counties ☐ Canada Provinces ☐
Major Rivers ☐ U.S. Interstates ☐ Gridlines ☐
NWS WFOs ☐ NPS Units ☐ Climate Divs ☐
Major World Cities ☐ World Roads (adds 1:00) ☐

Last month to start evaluation (e.g., 2 for Feb) 8

Number of months (up to 12) to evaluate (e.g., 3 for Dec-Feb) 8

Year of last month for assessment: 2023

Note 1: Do not select a date in the future!
Note 2: Make sure that your period is not 1939-40. There is no 1939 data.
Note 3: Even when generating normals, make sure not to pick a date in the future.

Values or Departure strip (1=Values, 2=Departure): 2
Show Values or Departure strip (1=Yes, 2=No): 1

Begin Climo 1991 **End** Climo 2020

Central Longitude (Arctic Only) 0
(Used for Map Type options 2 and 3 above)

ENSO Section Only ONI Min -5.0 ONI Max 5.0 [Use to select from a range of average ONI val; or enter list of years manually below.]

OR List of years
Map Subtitle (used when a list of years is entered) 20 chars or less
Above/Below (1=Above/2=Below): 1 100.0 From Climo. Use Detrended Climatology (ONI or list of years) ☑

[Note 1: Only Used if Map Type is 9. Takes 6 mins for new query. Min of 4+ years and separated by commas has priority. For DJF use end year.]
[Note 2: For the count of years above the trendline, units are % avg for snow and precip and clouds. Specify units below for temp, dew pt, and wind.

Units -> Metric or Imperial (1 = Metric, 2 = Imperial): 2

Temp/Wind Departure/Temp Trend Interval 1.0 (Makes 11 categories of Map Interval size.)

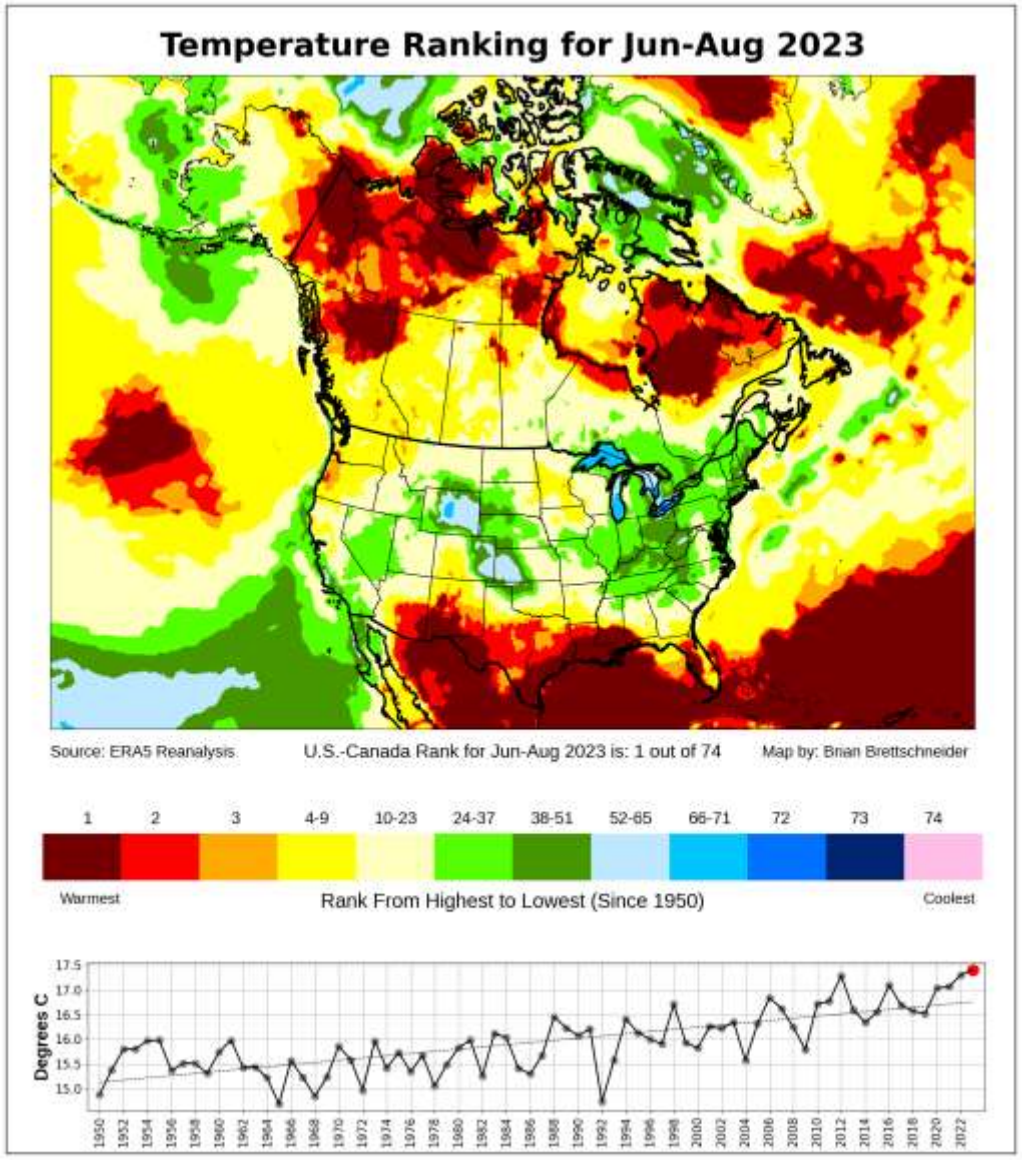
Dark Mode : ☐

Raw data obtained from Copernicus ECMWF Server. Analysis may not be accurate. **Use at your own risk!**

Generate (to reset form, select map area 0 and press button)

US-Canada Jun-Aug 2023 Temperature Ranking Since 1950

Uses 1950-preset period of record
Metric values time series strip on bottom
Added U.S. states and Canadian provinces



Select Map Area (1-10): 2

1 = Global (time: 0:30 to 1:20)
2 = U.S./Canada (time: 0:30 to 1:40)
3 = Contiguous U.S. (time: 0:30 to 1:50)
4 = Alaska (time: 0:30 to 1:30) ☐ Indigenous names
5 = Alaska and NW Canada (time: 0:30 to 1:15)
6 = Polar (time: 0:30 to 1:30) (60 to 90) North ☑
7 = Europe (time: 0:30 to 1:20)
8 = Pacific Northwest (time: 0:30 to 1:35)
9 = U.S. Pacific Islands (time: 0:30 to 1:25)
10 = Country, State, Province, or Box (all Plate Carree)
Country India
Countries (e.g., Country New Zealand)
States (e.g., State New York)
Canada provinces/territories (e.g., Canada Manitoba)
Box, N. Lat, S. Lat, W. Lon, E. Lon (Example: Box,45,25,-120,-50)

Select Map Type (1-9): 1

1 = Ranks (since 1940)
2 = Departure From Normal (not clouds/wind)
3 = Below, Near, Above Normal (slower)
4 = Target Year Values (not wind)
5 = Normal Values (not wind)
6 = 50 or 75-Year trend (8-10 mins for new run)
7 = 50-Year ENSO Season Correlation (6-10 mins for new run)
8 = SPI (precip auto selected; 8-mins for new run)
9 = Composite ENSO or List of Years (6-mins for new run)

Ranks / trend start year 1950

Note: For periods that wrap around New Year, the start year should by the year at the start of the period. For 1974-75 to 2023-24, (50 years), enter 1974 here (end year should be most current year).

Choose Map Theme (1-8): 1

Available themes: 1 = t2m, 2 = precip, 3 = snow, 4 = sst , 5 = dewpt, 6 = clouds, 7 = wind, 8 = seaice

Map Elements (Check top row for most N. American maps)
Lower 48 States ☑ U.S. Counties ☐ Canada Provinces ☑
Major Rivers ☐ U.S. Interstates ☐ Gridlines ☐
NWS WFOs ☐ NPS Units ☐ Climate Divs ☐
Major World Cities ☐ World Roads (adds 1:00) ☐

Last month to start evaluation (e.g., 2 for Feb): 8

Number of months (up to 12) to evaluate (e.g., 3 for Dec-Feb): 3

Year of last month for assessment: 2023

Note 1: Do not select a date in the future!
Note 2: Make sure that your period is not 1939-40. There is no 1939 data.
Note 3: Even when generating normals, make sure not to pick a date in the future.

Values or Departure strip (1=Values, 2=Departure): 1
Show Values or Departure strip (1=Yes, 2=No): 1

Begin Climo 1991 **End** Climo 2020

Central Longitude (Arctic Only) 0
(Used for Map Type options 2 and 3 above)

ENSO Section Only ONI Min -5.0 ONI Max 5.0 [Use to select from a range of average ONI val; or enter list of years manually below.]

OR List of years
Map Subtitle (used when a list of years is entered) 20 chars or less
Above/Below (1=Above/2=Below): 1 100.0 From Climo. Use Detrended Climatology (ONI or list of years) ☑

[Note 1: Only Used if Map Type is 9. Takes 6 mins for new query. Min of 4+ years and separated by commas has priority. For DJF use end year.]
[Note 2: For the count of years above the trendline, units are % avg for snow and precip and clouds. Specify units below for temp, dew pt, and wind.

Units -> Metric or Imperial (1 = Metric, 2 = Imperial): 1

Temp/Wind Departure/Temp Trend Interval 1.0 (Makes 11 categories of Map Interval size.)

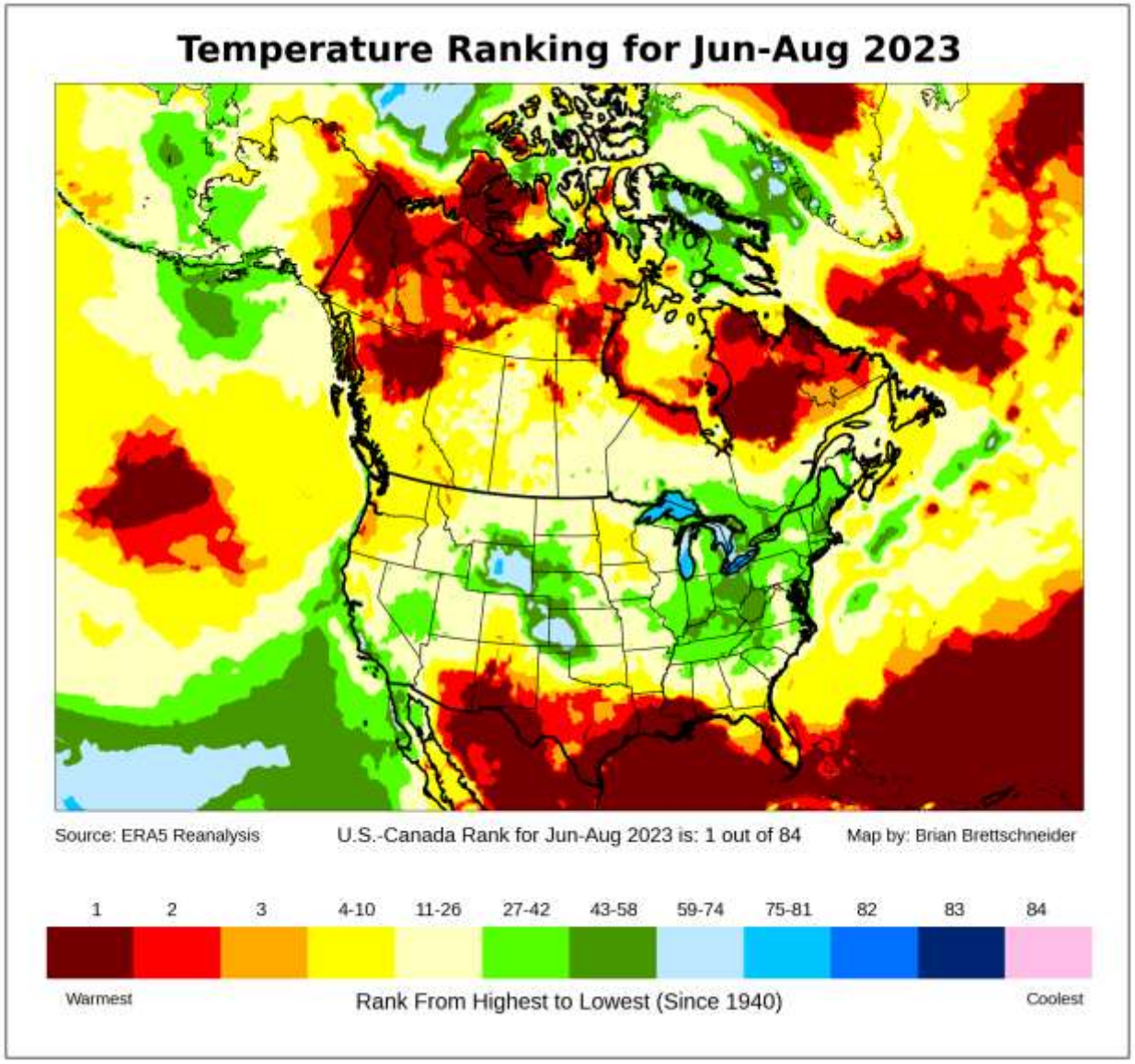
Dark Mode : ☐

Raw data obtained from Copernicus ECMWF Server. Analysis may not be accurate. **Use at your own risk!**

Generate (to reset form, select map area 0 and press button)

US-Canada Jun-Aug 2023 Temperature Ranking

Uses full period of record
No values/departure strip on bottom
Added U.S. states and Canadian provinces



Select Map Area (1-10): 2

1 = Global (time: 0:30 to 1:20)
2 = U.S./Canada (time: 0:30 to 1:40)
3 = Contiguous U.S. (time: 0:30 to 1:50)
4 = Alaska (time: 0:30 to 1:30) Indigenous names
5 = Alaska and NW Canada (time: 0:30 to 1:15)
6 = Polar (time: 0:30 to 1:30) (60 to 90) North
7 = Europe (time: 0:30 to 1:20)
8 = Pacific Northwest (time: 0:30 to 1:35)
9 = U.S. Pacific Islands (time: 0:30 to 1:25)
10 = Country, State, Province, or Box (all Plate Carree)
Country India
Countries (e.g., Country New Zealand)
States (e.g., State New York)
Canada provinces/territories (e.g., Canada Manitoba)
Box, N. Lat, S. Lat, W. Lon, E. Lon (Example: Box,45,25,-120,-50)

Select Map Type (1-9): 1

1 = Ranks (since 1940)
2 = Departure From Normal (not clouds/wind)
3 = Below, Near, Above Normal (slower)
4 = Target Year Values (not wind)
5 = Normal Values (not wind)
6 = 50 or 75-Year trend (8-10 mins for new run)
7 = 50-Year ENSO Season Correlation (6-10 mins for new run)
8 = SPI (precip auto selected; 8-mins for new run)
9 = Composite ENSO or List of Years (6-mins for new run)

Ranks / trend start year 1940

Note: For periods that wrap around New Year, the start year should by the year at the start of the period. For 1974-75 to 2023-24, (50 years), enter 1974 here (end year should be most current year).

Choose Map Theme (1-8): 1

Available themes: 1 = t2m, 2 = precip, 3 = snow, 4 = sst , 5 = dewpt, 6 = clouds, 7 = wind, 8 = seaice

Map Elements (Check top row for most N. American maps)
Lower 48 States U.S. Counties Canada Provinces
Major Rivers U.S. Interstates Gridlines
NWS WFOs NPS Units Climate Divs
Major World Cities World Roads (adds 1:00)

Last month to start evaluation (e.g., 2 for Feb): 8

Number of months (up to 12) to evaluate (e.g., 3 for Dec-Feb): 3

Year of last month for assessment: 2023

Note 1: Do not select a date in the future!
Note 2: Make sure that your period is not 1939-40. There is no 1939 data.
Note 3: Even when generating normals, make sure not to pick a date in the future.

Values or Departure strip (1=Values, 2=Departure): 1
Show Values or Departure strip (1=Yes, 2=No): 2

Begin Climo 1991 **End** Climo 2020

Central Longitude (Arctic Only) 0
(Used for Map Type options 2 and 3 above)

ENSO Section Only ONI Min -5.0 ONI Max 5.0 [Use to select from a range of average ONI val; or enter list of years manually below.]

OR List of years
Map Subtitle (used when a list of years is entered) 20 chars or less
Above/Below (1=Above/2=Below): 1 100.0 From Climo. Use Detrended Climatology (ONI or list of years)

[Note 1: Only Used if Map Type is 9. Takes 6 mins for new query. Min of 4+ years and separated by commas has priority. For DJF use end year.]
[Note 2: For the count of years above the trendline, units are % avg for snow and precip and clouds. Specify units below for temp, dew pt, and wind.

Units -> Metric or Imperial (1 = Metric, 2 = Imperial): 1

Temp/Wind Departure/Temp Trend Interval 1.0 (Makes 11 categories of Map Interval size.)

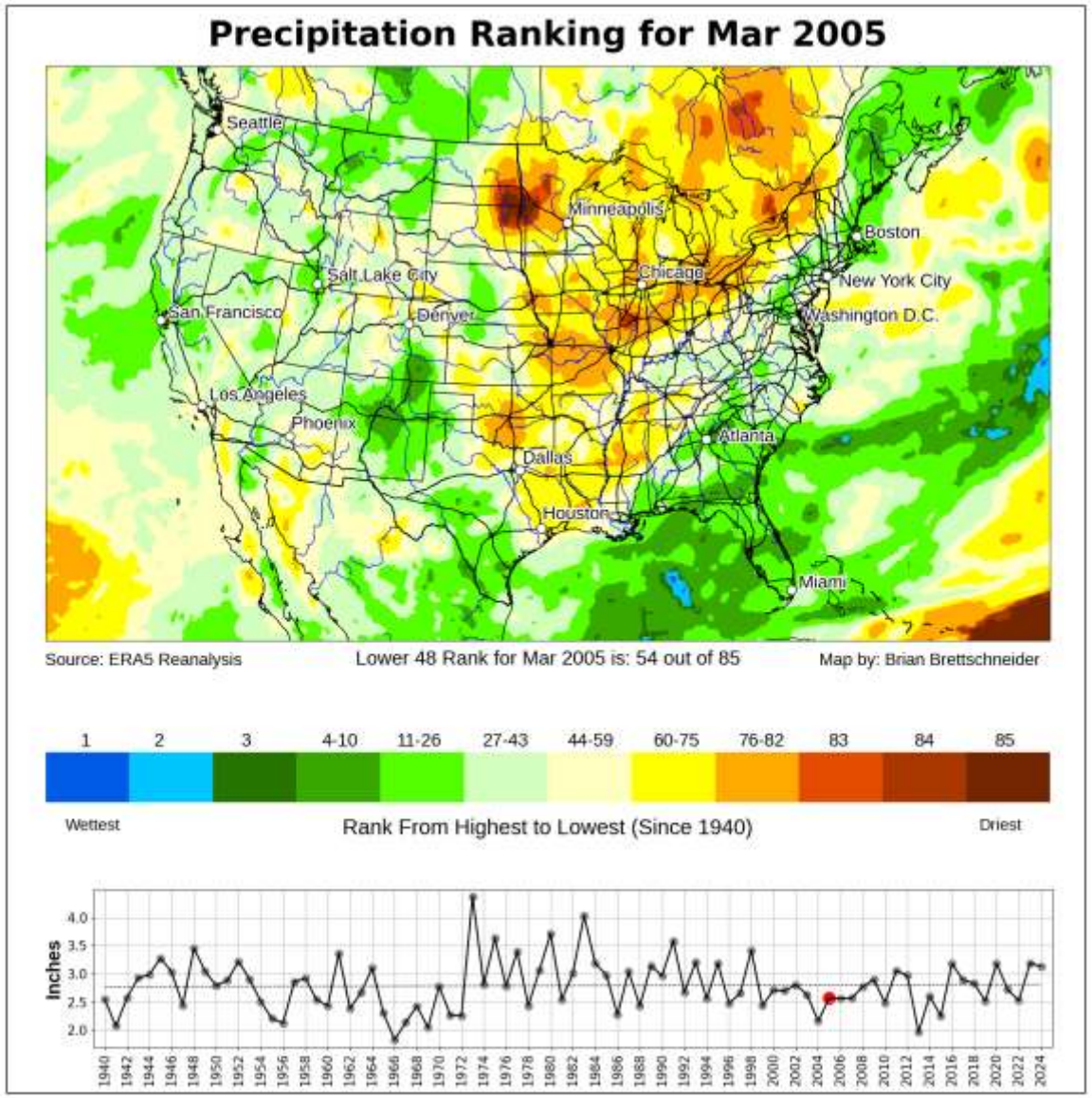
Dark Mode :

Raw data obtained from Copernicus ECMWF Server. Analysis may not be accurate. **Use at your own risk!**

Generate (to reset form, select map area 0 and press button)

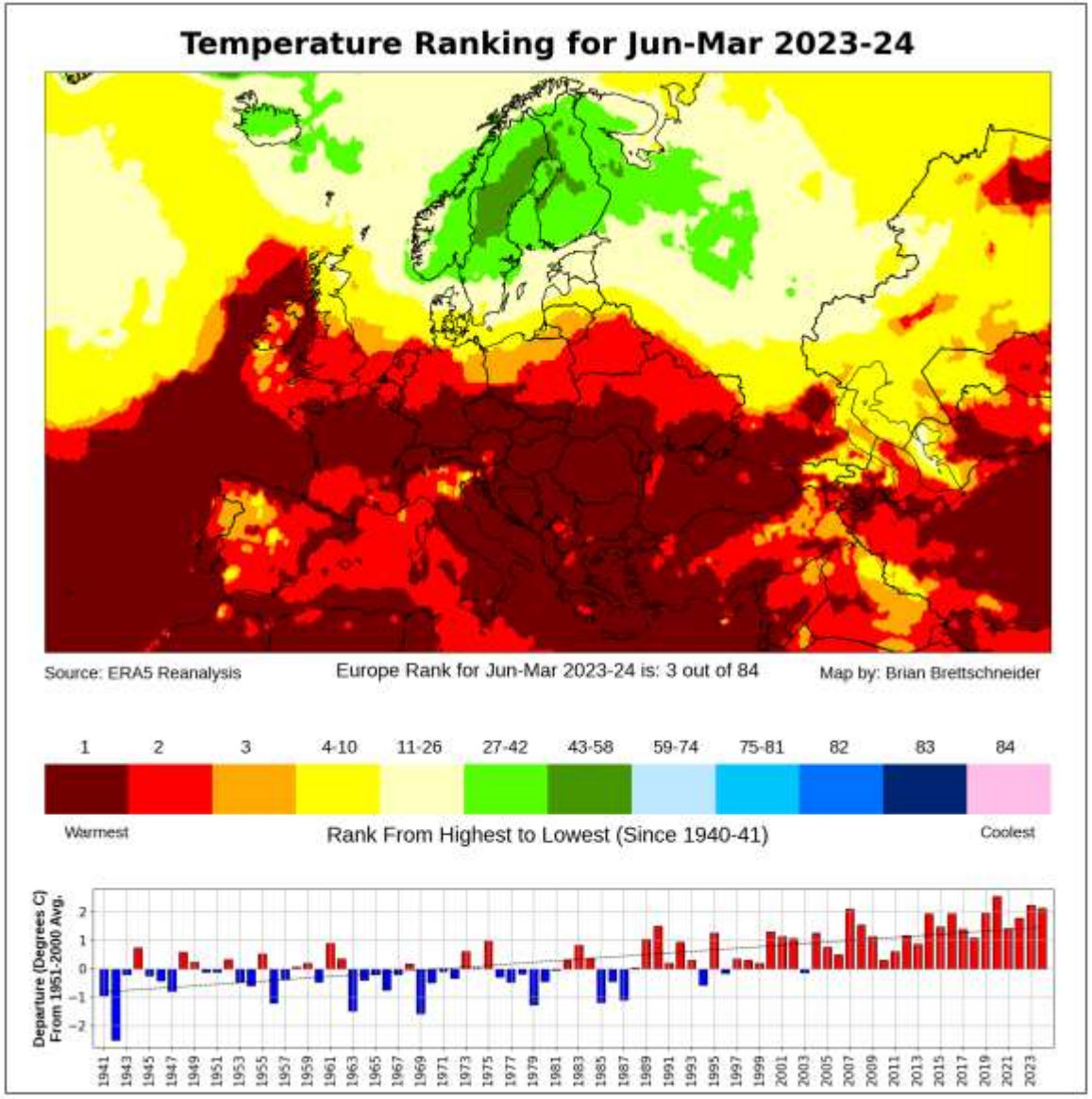
Contiguous U.S. March 2005 Precipitation Ranking

Uses full period of record
Imperial values time series strip on bottom
Added U.S. states, major rivers, and interstates



Europe Jun 2023-Mar 2024 Temperature Ranking

Uses full period of record
Metric values departure from 1951-2000 normal
No other map elements added



Select Map Area (1-10): 7

1 = Global (time: 0:30 to 1:20)
2 = U.S./Canada (time: 0:30 to 1:40)
3 = Contiguous U.S. (time: 0:30 to 1:50)
4 = Alaska (time: 0:30 to 1:30) Indigenous names
5 = Alaska and NW Canada (time: 0:30 to 1:15)
6 = Polar (time: 0:30 to 1:30) (60 to 90) North
7 = Europe (time: 0:30 to 1:20)
8 = Pacific Northwest (time: 0:30 to 1:35)
9 = U.S. Pacific Islands (time: 0:30 to 1:25)
10 = Country, State, Province, or Box (all Plate Carree)
Country India
Countries (e.g., Country New Zealand)
States (e.g., State New York)
Canada provinces/territories (e.g., Canada Manitoba)
Box, N. Lat, S. Lat, W. Lon, E. Lon (Example: Box,45,25,-120,-50)

Select Map Type (1-9): 1

1 = Ranks (since 1940)
2 = Departure From Normal (not clouds/wind)
3 = Below, Near, Above Normal (slower)
4 = Target Year Values (not wind)
5 = Normal Values (not wind)
6 = 50 or 75-Year trend (8-10 mins for new run)
7 = 50-Year ENSO Season Correlation (6-10 mins for new run)
8 = SPI (precip auto selected; 8-mins for new run)
9 = Composite ENSO or List of Years (6-mins for new run)

Ranks / trend start year 1940

Note: For periods that wrap around New Year, the start year should by the year at the start of the period. For 1974-75 to 2023-24, (50 years), enter 1974 here (end year should be most current year).

Choose Map Theme (1-8): 1

Available themes: 1 = t2m, 2 = precip, 3 = snow, 4 = sst , 5 = dewpt, 6 = clouds, 7 = wind, 8 = seaice

Map Elements (Check top row for most N. American maps)
Lower 48 States U.S. Counties Canada Provinces
Major Rivers U.S. Interstates Gridlines
NWS WFOs NPS Units Climate Divs
Major World Cities World Roads (adds 1:00)

Last month to start evaluation (e.g., 2 for Feb): 3

Number of months (up to 12) to evaluate (e.g., 3 for Dec-Feb): 10

Year of last month for assessment: 2024

Note 1: Do not select a date in the future!
Note 2: Make sure that your period is not 1939-40. There is no 1939 data.
Note 3: Even when generating normals, make sure not to pick a date in the future.

Values or Departure strip (1=Values, 2=Departure): 2
Show Values or Departure strip (1=Yes, 2=No): 1

Begin Climo 1951 **End** Climo 2000

Central Longitude (Arctic Only) 0
(Used for Map Type options 2 and 3 above)

ENSO Section Only ONI Min -5.0 ONI Max 5.0 [Use to select from a range of average ONI val; or enter list of years manually below.]

OR List of years
Map Subtitle (used when a list of years is entered) 20 chars or less
Above/Below (1=Above/2=Below): 1 100.0 From Climo. Use Detrended Climatology (ONI or list of years)

[Note 1: Only Used if Map Type is 9. Takes 6 mins for new query. Min of 4+ years and separated by commas has priority. For DJF use end year.]
[Note 2: For the count of years above the trendline, units are % avg for snow and precip and clouds. Specify units below for temp, dew pt, and wind.

Units -> Metric or Imperial (1 = Metric, 2 = Imperial): 1

Temp/Wind Departure/Temp Trend Interval 1.0 (Makes 11 categories of Map Interval size.)

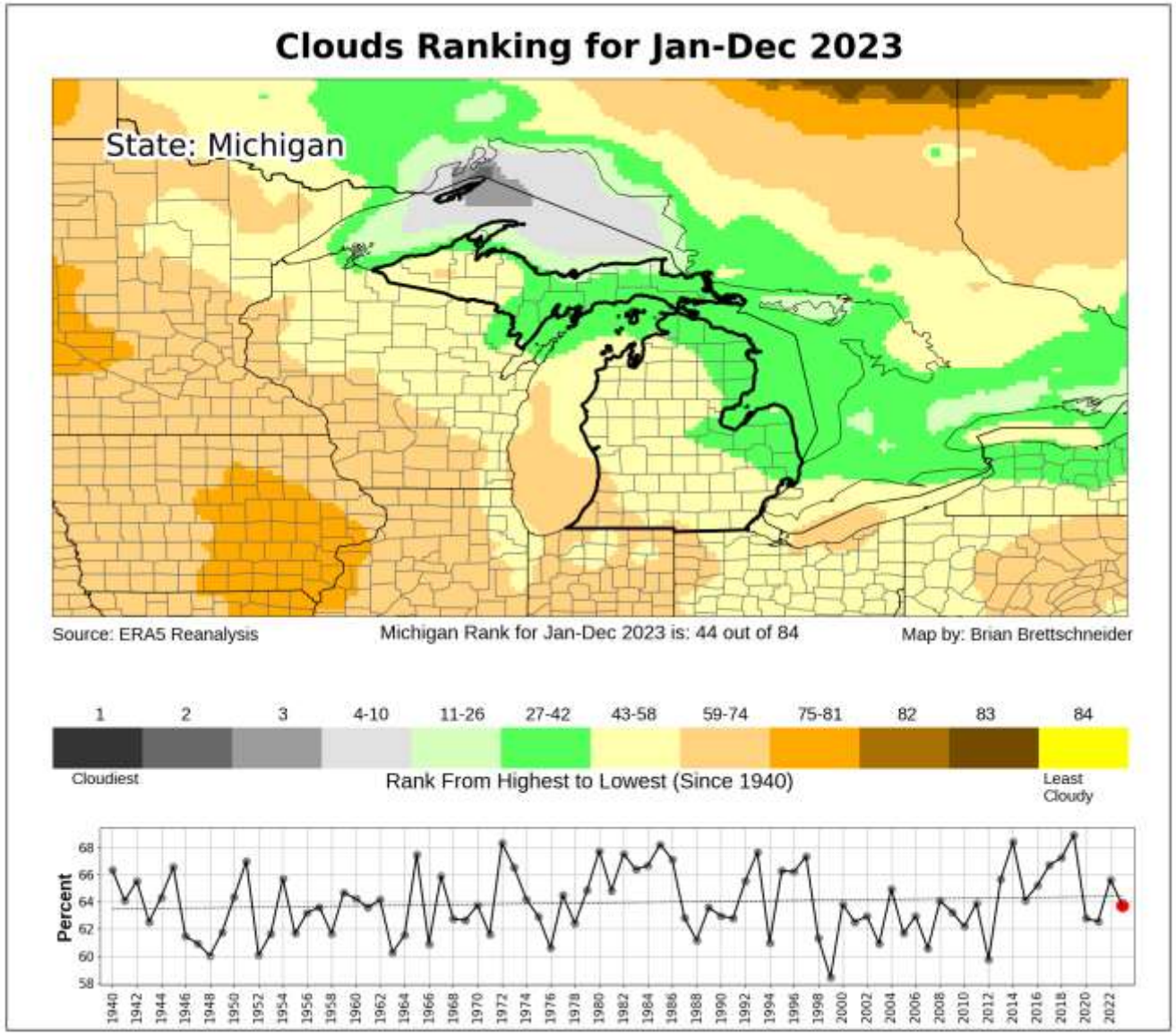
Dark Mode :

Raw data obtained from Copernicus ECMWF Server. Analysis may not be accurate. **Use at your own risk!**

Generate (to reset form, select map area 0 and press button)

Michigan Jan-Dec 2023 Clouds Ranking

Uses full period of record
Time series is always percent for clouds
States, Canadian provinces, and counties added



Select Map Area (1-10) 10

1 = Global (time: 0:30 to 1:20)
2 = U.S./Canada (time: 0:30 to 1:40)
3 = Contiguous U.S. (time: 0:30 to 1:50)
4 = Alaska (time: 0:30 to 1:30) Indigenous names
5 = Alaska and NW Canada (time: 0:30 to 1:15)
6 = Polar (time: 0:30 to 1:30) (60 to 90) North
7 = Europe (time: 0:30 to 1:20)
8 = Pacific Northwest (time: 0:30 to 1:35)
9 = U.S. Pacific Islands (time: 0:30 to 1:25)
10 = Country, State, Province, or Box (all Plate Carree)

State Michigan

Countries (e.g., Country New Zealand)
States (e.g., State New York)
Canada provinces/territories (e.g., Canada Manitoba)
Box, N. Lat, S. Lat, W. Lon, E. Lon (Example: Box,45,25,-120,-50)

Select Map Type (1-9): 1

1 = Ranks (since 1940)
2 = Departure From Normal (not clouds/wind)
3 = Below, Near, Above Normal (slower)
4 = Target Year Values (not wind)
5 = Normal Values (not wind)
6 = 50 or 75-Year trend (8-10 mins for new run)
7 = 50-Year ENSO Season Correlation (6-10 mins for new run)
8 = SPI (precip auto selected; 8-mins for new run)
9 = Composite ENSO or List of Years (6-mins for new run)

Ranks / trend start year 1940

Note: For periods that wrap around New Year, the start year should by the year at the start of the period. For 1974-75 to 2023-24, (50 years), enter 1974 here (end year should be most current year).

Choose Map Theme (1-8) 6

Available themes: 1 = t2m, 2 = precip, 3 = snow, 4 = sst , 5 = dewpt, 6 = clouds, 7 = wind, 8 = seaice

Map Elements (Check top row for most N. American maps)
Lower 48 States U.S. Counties Canada Provinces
Major Rivers U.S. Interstates Gridlines
NWS WFOs NPS Units Climate Divs
Major World Cities World Roads (adds 1:00)

Last month to start evaluation (e.g., 2 for Feb) 12

Number of months (up to 12) to evaluate (e.g., 3 for Dec-Feb) 12

Year of last month for assessment: 2023

Note 1: Do not select a date in the future!
Note 2: Make sure that your period is not 1939-40. There is no 1939 data.
Note 3: Even when generating normals, make sure not to pick a date in the future.

Values or Departure strip (1=Values, 2=Departure): 1
Show Values or Departure strip (1=Yes, 2=No): 1

Begin Climo 1991 **End** Climo 2020

Central Longitude (Arctic Only) 0
(Used for Map Type options 2 and 3 above)

ENSO Section Only ONI Min -5.0 ONI Max 5.0 [Use to select from a range of average ONI val; or enter list of years manually below.]

OR List of years

Map Subtitle (used when a list of years is entered) 20 chars or less

Above/Below (1=Above/2=Below): 1 100.0 From Climo. Use Detrended Climatology (ONI or list of years)

[Note 1: Only Used if Map Type is 9. Takes 6 mins for new query. Min of 4+ years and separated by commas has priority. For DJF use end year.]
[Note 2: For the count of years above the trendline, units are % avg for snow and precip and clouds. Specify units below for temp, dew pt, and wind.

Units -> Metric or Imperial (1 = Metric, 2 = Imperial): 1

Temp/Wind Departure/Temp Trend Interval 1.0 (Makes 11 categories of Map Interval size.)

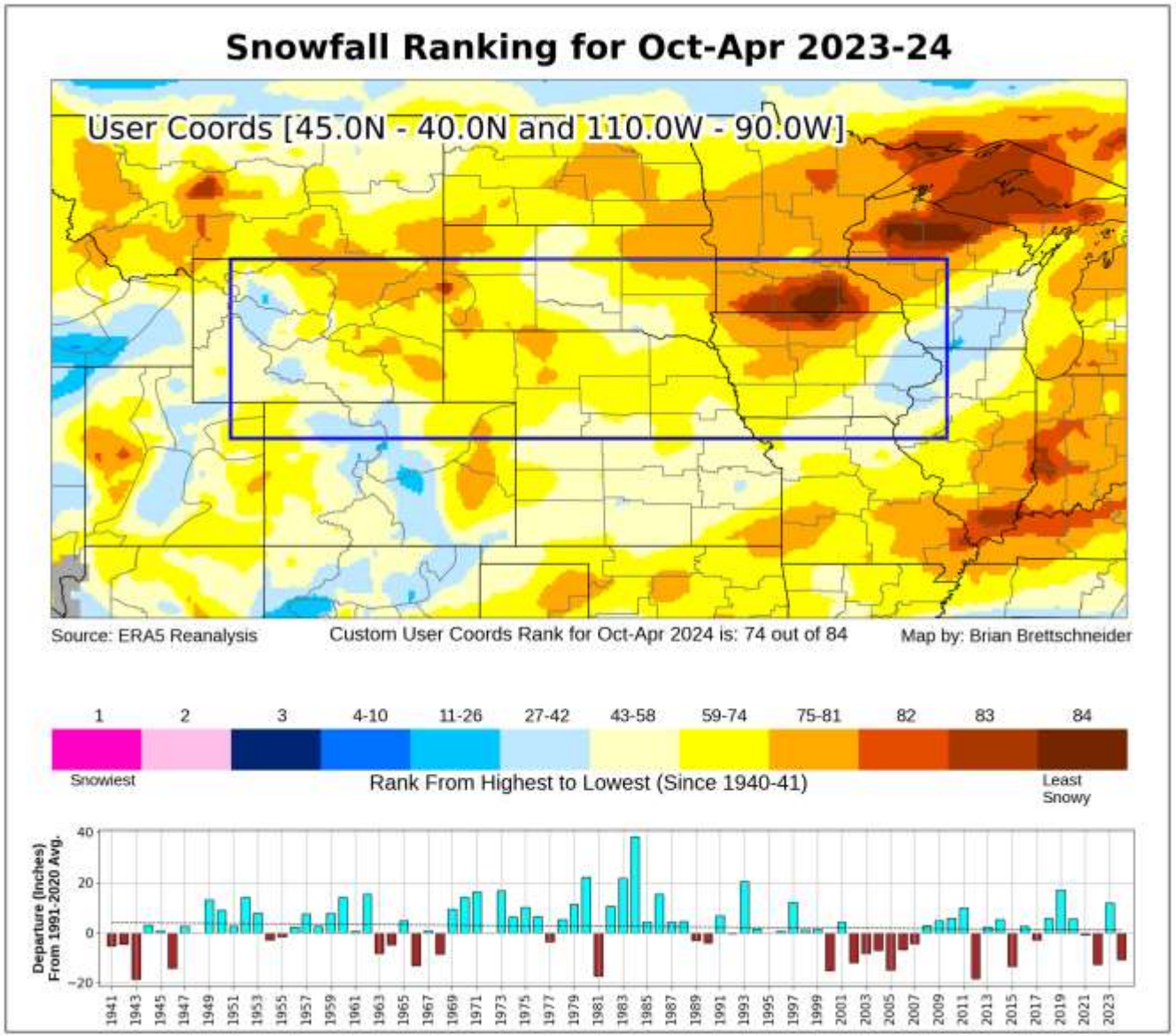
Dark Mode :

Raw data obtained from Copernicus ECMWF Server. Analysis may not be accurate. **Use at your own risk!**

Generate (to reset form, select map area 0 and press button)

User-Defined Box Oct 2023-Apr 2024 Snowfall Ranking

Uses full period of record
Imperial departure time series strip on bottom
States, Canadian provinces, and climate divisions added



Select Map Area (1-10): 10

1 = Global (time: 0:30 to 1:20)
2 = U.S./Canada (time: 0:30 to 1:40)
3 = Contiguous U.S. (time: 0:30 to 1:50)
4 = Alaska (time: 0:30 to 1:30) ☐ Indigenous names
5 = Alaska and NW Canada (time: 0:30 to 1:15)
6 = Polar (time: 0:30 to 1:30) (60 to 90) North ☑
7 = Europe (time: 0:30 to 1:20)
8 = Pacific Northwest (time: 0:30 to 1:35)
9 = U.S. Pacific Islands (time: 0:30 to 1:25)
10 = Country, State, Province, or Box (all Plate Carree)

Box,45,40,-110,-90

Countries (e.g., Country New Zealand)
States (e.g., State New York)
Canada provinces/territories (e.g., Canada Manitoba)
Box, N. Lat, S. Lat, W. Lon, E. Lon (Example: Box,45,25,-120,-50)

Select Map Type (1-9): 1

1 = Ranks (since 1940)
2 = Departure From Normal (not clouds/wind)
3 = Below, Near, Above Normal (slower)
4 = Target Year Values (not wind)
5 = Normal Values (not wind)
6 = 50 or 75-Year trend (8-10 mins for new run)
7 = 50-Year ENSO Season Correlation (6-10 mins for new run)
8 = SPI (precip auto selected; 8-mins for new run)
9 = Composite ENSO or List of Years (6-mins for new run)

Ranks / trend start year 1940

Note: For periods that wrap around New Year, the start year should by the year at the start of the period. For 1974-75 to 2023-24, (50 years), enter 1974 here (end year should be most current year).

Choose Map Theme (1-8): 3

Available themes: 1 = t2m, 2 = precip, 3 = snow, 4 = sst , 5 = dewpt, 6 = clouds, 7 = wind, 8 = seaice

Map Elements (Check top row for most N. American maps)
Lower 48 States ☑ U.S. Counties ☐ Canada Provinces ☐
Major Rivers ☐ U.S. Interstates ☐ Gridlines ☐
NWS WFOs ☐ NPS Units ☐ Climate Divs ☑
Major World Cities ☐ World Roads (adds 1:00) ☐

Last month to start evaluation (e.g., 2 for Feb): 4

Number of months (up to 12) to evaluate (e.g., 3 for Dec-Feb): 7

Year of last month for assessment: 2024

Note 1: Do not select a date in the future!
Note 2: Make sure that your period is not 1939-40. There is no 1939 data.
Note 3: Even when generating normals, make sure not to pick a date in the future.

Values or Departure strip (1=Values, 2=Departure): 2
Show Values or Departure strip (1=Yes, 2=No): 1

Begin Climo 1991 **End** Climo 2020

Central Longitude (Arctic Only) 0
(Used for Map Type options 2 and 3 above)

ENSO Section Only ONI Min -5.0 ONI Max 5.0 [Use to select from a range of average ONI val; or enter list of years manually below.]

OR List of years
Map Subtitle (used when a list of years is entered) 20 chars or less
Above/Below (1=Above/2=Below): 1 100.0 From Climo. Use Detrended Climatology (ONI or list of years) ☑

[Note 1: Only Used if Map Type is 9. Takes 6 mins for new query. Min of 4+ years and separated by commas has priority. For DJF use end year.]
[Note 2: For the count of years above the trendline, units are % avg for snow and precip and clouds. Specify units below for temp, dew pt, and wind.

Units -> Metric or Imperial (1 = Metric, 2 = Imperial): 2

Temp/Wind Departure/Temp Trend Interval 1.0 (Makes 11 categories of Map Interval size.)

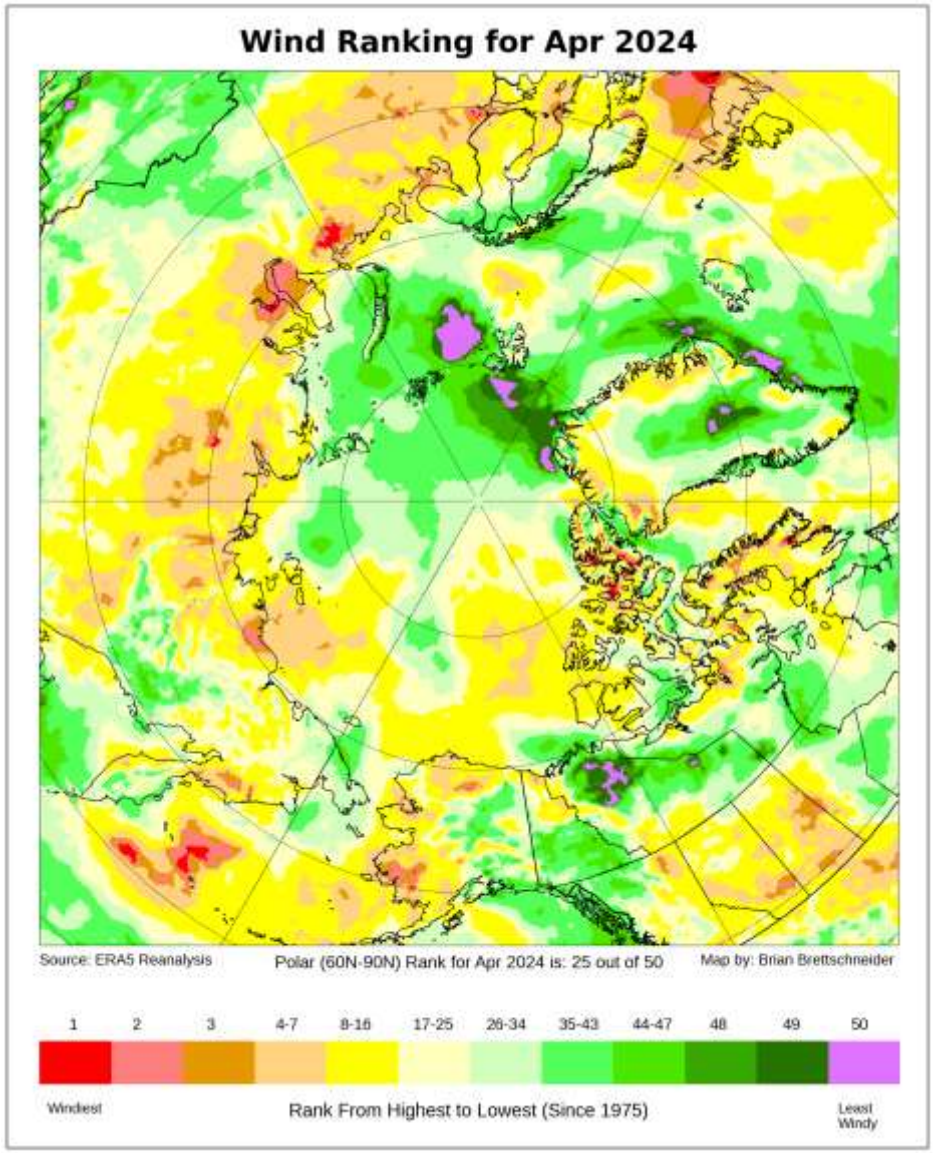
Dark Mode : ☐

Raw data obtained from Copernicus ECMWF Server. Analysis may not be accurate. **Use at your own risk!**

Generate (to reset form, select map area 0 and press button)

North Polar Apr 2024 Wind Ranking

Uses 1975-preset period of record
Centered on N. Pole; Central Meridian in 150W.
Canadian provinces and gridlines added. No time series strip.



Select Map Area (1-10): 6

1 = Global (time: 0:30 to 1:20)
2 = U.S./Canada (time: 0:30 to 1:40)
3 = Contiguous U.S. (time: 0:30 to 1:50)
4 = Alaska (time: 0:30 to 1:30) ☐ Indigenous names
5 = Alaska and NW Canada (time: 0:30 to 1:15)
6 = Polar (time: 0:30 to 1:30) (60 to 90) North ☑
7 = Europe (time: 0:30 to 1:20)
8 = Pacific Northwest (time: 0:30 to 1:35)
9 = U.S. Pacific Islands (time: 0:30 to 1:25)
10 = Country, State, Province, or Box (all Plate Carree)
Global
Countries (e.g., Country New Zealand)
States (e.g., State New York)
Canada provinces/territories (e.g., Canada Manitoba)
Box, N. Lat, S. Lat, W. Lon, E. Lon (Example: Box,45,25,-120,-50)

Select Map Type (1-9): 1

1 = Ranks (since 1940)
2 = Departure From Normal (not clouds/wind)
3 = Below, Near, Above Normal (slower)
4 = Target Year Values (not wind)
5 = Normal Values (not wind)
6 = 50 or 75-Year trend (8-10 mins for new run)
7 = 50-Year ENSO Season Correlation (6-10 mins for new run)
8 = SPI (precip auto selected; 8-mins for new run)
9 = Composite ENSO or List of Years (6-mins for new run)

Ranks / trend start year: 1975

Note: For periods that wrap around New Year, the start year should by the year at the start of the period. For 1974-75 to 2023-24, (50 years), enter 1974 here (end year should be most current year).

Choose Map Theme (1-8): 7

Available themes: 1 = t2m, 2 = precip, 3 = snow, 4 = sst , 5 = dewpt, 6 = clouds, 7 = wind, 8 = seaice

Map Elements (Check top row for most N. American maps)
Lower 48 States ☐ U.S. Counties ☐ Canada Provinces ☑
Major Rivers ☐ U.S. Interstates ☐ Gridlines ☑
NWS WFOs ☐ NPS Units ☐ Climate Divs ☐
Major World Cities ☐ World Roads (adds 1:00) ☐

Last month to start evaluation (e.g., 2 for Feb): 4

Number of months (up to 12) to evaluate (e.g., 3 for Dec-Feb): 1

Year of last month for assessment: 2024

Note 1: Do not select a date in the future!
Note 2: Make sure that your period is not 1939-40. There is no 1939 data.
Note 3: Even when generating normals, make sure not to pick a date in the future.

Values or Departure strip (1=Values, 2=Departure): 1
Show Values or Departure strip (1=Yes, 2=No): 2

Begin Climo 1991 **End** Climo 2020

Central Longitude (Arctic Only): -150
(Used for Map Type options 2 and 3 above)

ENSO Section Only ONI Min -5.0 ONI Max 5.0 [Use to select from a range of average ONI val; or enter list of years manually below.]

OR List of years
Map Subtitle (used when a list of years is entered) 20 chars or less
Above/Below (1=Above/2=Below): 1 100.0 From Climo. Use Detrended Climatology (ONI or list of years) ☑

[Note 1: Only Used if Map Type is 9. Takes 6 mins for new query. Min of 4+ years and separated by commas has priority. For DJF use end year.]
[Note 2: For the count of years above the trendline, units are % avg for snow and precip and clouds. Specify units below for temp, dew pt, and wind.

Units -> Metric or Imperial (1 = Metric, 2 = Imperial): 1

Temp/Wind Departure/Temp Trend Interval 1.0 (Makes 11 categories of Map Interval size.)

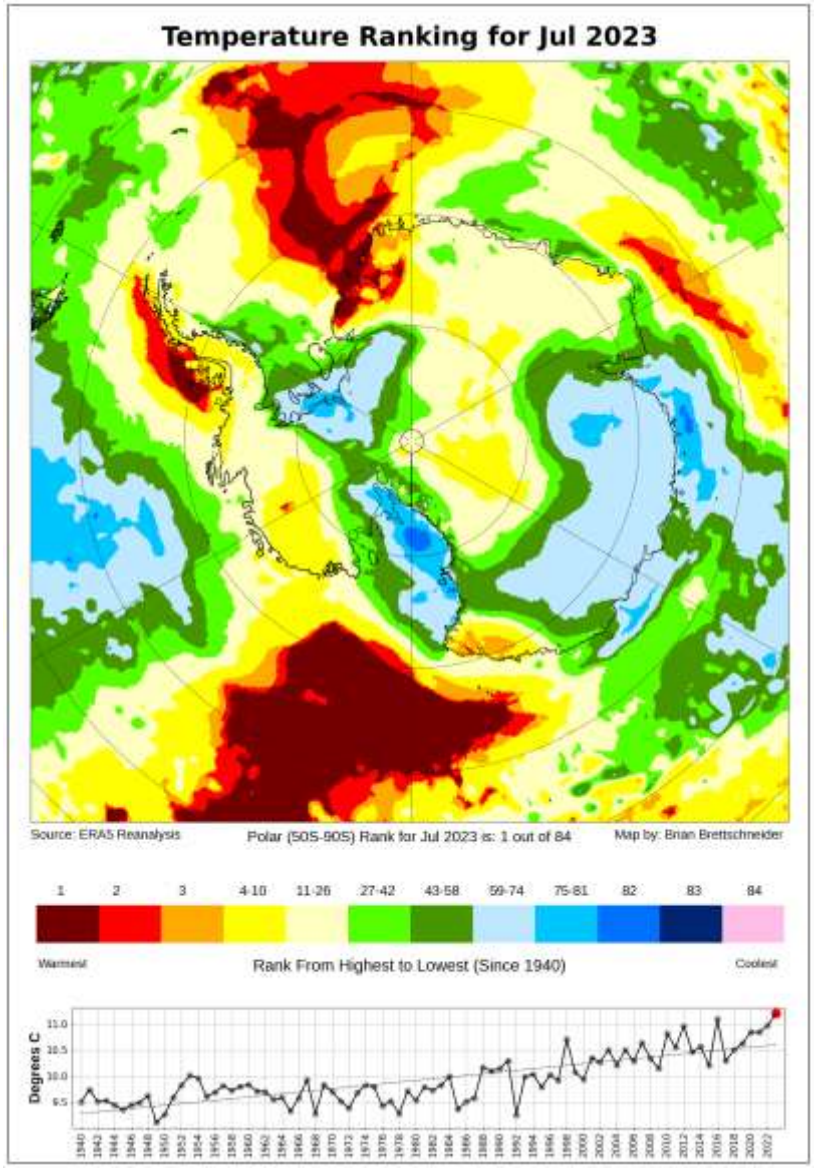
Dark Mode : ☐

Raw data obtained from Copernicus ECMWF Server. Analysis may not be accurate. **Use at your own risk!**

Generate (to reset form, select map area 0 and press button)

South Polar July 2023 Temperature Ranking

Uses full period of record
Centered on S. Pole; Central Meridian in 0 E/W.
Metric values time series strip on bottom, Gridlines added.



Select Map Area (1-10): 6

1 = Global (time: 0:30 to 1:20)
2 = U.S./Canada (time: 0:30 to 1:40)
3 = Contiguous U.S. (time: 0:30 to 1:50)
4 = Alaska (time: 0:30 to 1:30) ☐ Indigenous names
5 = Alaska and NW Canada (time: 0:30 to 1:15)
6 = Polar (time: 0:30 to 1:30) 50 to 90) North ☐
7 = Europe (time: 0:30 to 1:20)
8 = Pacific Northwest (time: 0:30 to 1:35)
9 = U.S. Pacific Islands (time: 0:30 to 1:25)
10 = Country, State, Province, or Box (all Plate Carree)
Global
Countries (e.g., Country New Zealand)
States (e.g., State New York)
Canada provinces/territories (e.g., Canada Manitoba)
Box, N. Lat, S. Lat, W. Lon, E. Lon (Example: Box,45,25,-120,-50)

Select Map Type (1-9): 1

1 = Ranks (since 1940)
2 = Departure From Normal (not clouds/wind)
3 = Below, Near, Above Normal (slower)
4 = Target Year Values (not wind)
5 = Normal Values (not wind)
6 = 50 or 75-Year trend (8-10 mins for new run)
7 = 50-Year ENSO Season Correlation (6-10 mins for new run)
8 = SPI (precip auto selected; 8-mins for new run)
9 = Composite ENSO or List of Years (6-mins for new run)

Ranks / trend start year 1940

Note: For periods that wrap around New Year, the start year should by the year at the start of the period. For 1974-75 to 2023-24, (50 years), enter 1974 here (end year should be most current year).

Choose Map Theme (1-8): 1

Available themes: 1 = t2m, 2 = precip, 3 = snow, 4 = sst , 5 = dewpt, 6 = clouds, 7 = wind, 8 = seaice

Map Elements (Check top row for most N. American maps)
Lower 48 States ☐ U.S. Counties ☐ Canada Provinces ☐
Major Rivers ☐ U.S. Interstates ☐ Gridlines ☑
NWS WFOs ☐ NPS Units ☐ Climate Divs ☐
Major World Cities ☐ World Roads (adds 1:00) ☐

Last month to start evaluation (e.g., 2 for Feb): 7

Number of months (up to 12) to evaluate (e.g., 3 for Dec-Feb): 1

Year of last month for assessment: 2023

Note 1: Do not select a date in the future!
Note 2: Make sure that your period is not 1939-40. There is no 1939 data.
Note 3: Even when generating normals, make sure not to pick a date in the future.

Values or Departure strip (1=Values, 2=Departure): 1
Show Values or Departure strip (1=Yes, 2=No): 1

Begin Climo 1991 **End** Climo 2020

Central Longitude (Arctic Only) 0
(Used for Map Type options 2 and 3 above)

ENSO Section Only ONI Min -5.0 ONI Max 5.0 [Use to select from a range of average ONI val; or enter list of years manually below.]

OR List of years
Map Subtitle (used when a list of years is entered) 20 chars or less
Above/Below (1=Above/2=Below): 1 100.0 From Climo: Use Detrended Climatology (ONI or list of years) ☑

[Note 1: Only Used if Map Type is 9. Takes 6 mins for new query. Min of 4+ years and separated by commas has priority. For DJF use end year.]
[Note 2: For the count of years above the trendline, units are % avg for snow and precip and clouds. Specify units below for temp, dew pt, and wind.

Units -> Metric or Imperial (1 = Metric, 2 = Imperial): 1

Temp/Wind Departure/Temp Trend Interval 1.0 (Makes 11 categories of Map Interval size.)

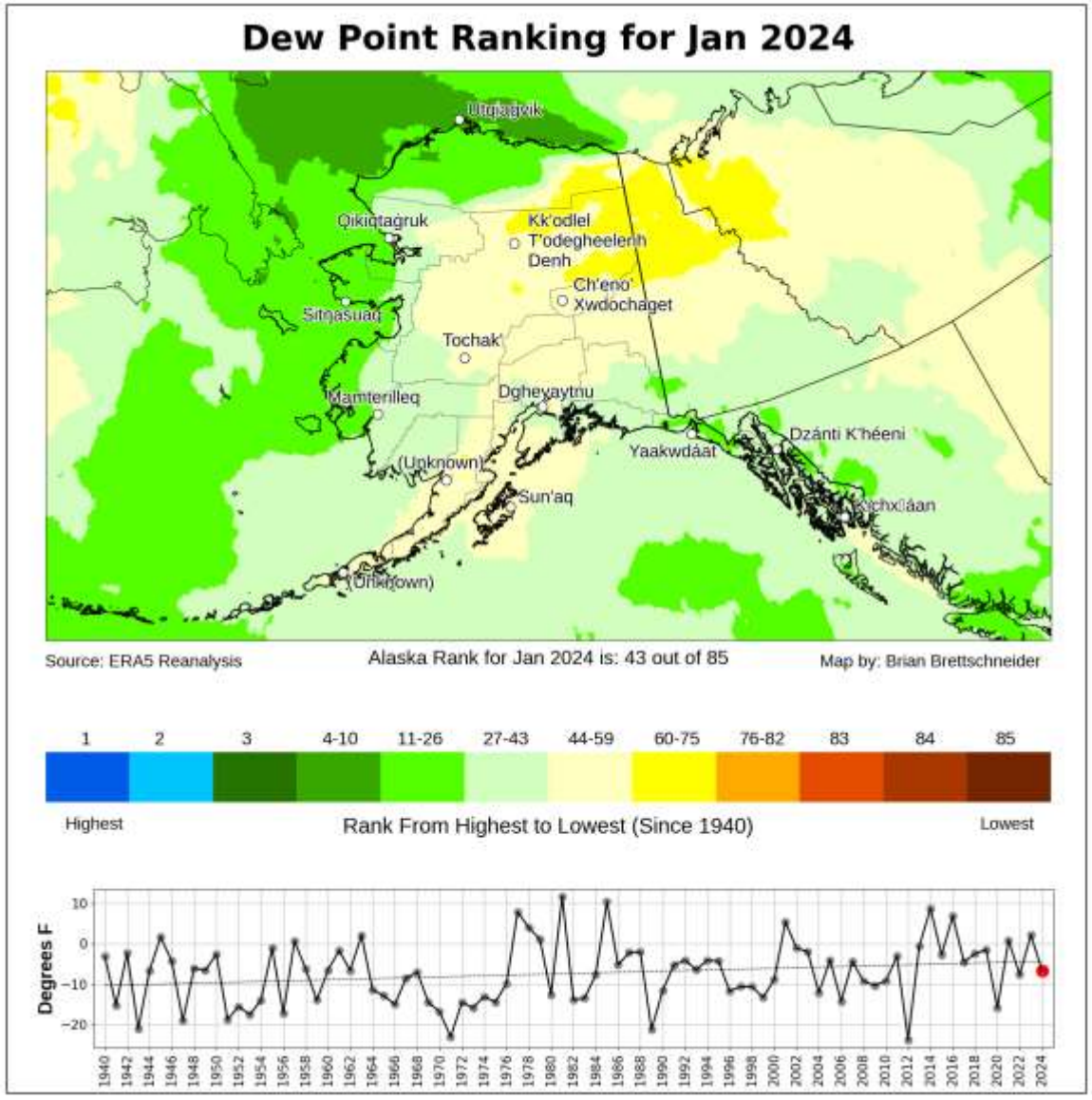
Dark Mode : ☐

Raw data obtained from Copernicus ECMWF Server. Analysis may not be accurate. **Use at your own risk!**

Generate (to reset form, select map area 0 and press button)

Alaska January 2024 Dew Point Ranking

Uses full period of record
Imperial values time series strip on bottom
States, Canadian provinces, counties, indigenous names added



Select Map Area (1-10): 4

1 = Global (time: 0:30 to 1:20)
2 = U.S./Canada (time: 0:30 to 1:40)
3 = Contiguous U.S. (time: 0:30 to 1:50)
4 = Alaska (time: 0:30 to 1:30) Indigenous names
5 = Alaska and NW Canada (time: 0:30 to 1:15)
6 = Polar (time: 0:30 to 1:30) (60 to 90) North
7 = Europe (time: 0:30 to 1:20)
8 = Pacific Northwest (time: 0:30 to 1:35)
9 = U.S. Pacific Islands (time: 0:30 to 1:25)
10 = Country, State, Province, or Box (all Plate Carree)
Global
Countries (e.g., Country New Zealand)
States (e.g., State New York)
Canada provinces/territories (e.g., Canada Manitoba)
Box, N. Lat, S. Lat, W. Lon, E. Lon (Example: Box,45,25,-120,-50)

Select Map Type (1-9): 1

1 = Ranks (since 1940)
2 = Departure From Normal (not clouds/wind)
3 = Below, Near, Above Normal (slower)
4 = Target Year Values (not wind)
5 = Normal Values (not wind)
6 = 50 or 75-Year trend (8-10 mins for new run)
7 = 50-Year ENSO Season Correlation (6-10 mins for new run)
8 = SPI (precip auto selected; 8-mins for new run)
9 = Composite ENSO or List of Years (6-mins for new run)

Ranks / trend start year 1940

Note: For periods that wrap around New Year, the start year should by the year at the start of the period. For 1974-75 to 2023-24, (50 years), enter 1974 here (end year should be most current year).

Choose Map Theme (1-8): 5

Available themes: 1 = t2m, 2 = precip, 3 = snow, 4 = sst , 5 = dewpt, 6 = clouds, 7 = wind, 8 = seaice

Map Elements (Check top row for most N. American maps)
Lower 48 States U.S. Counties Canada Provinces
Major Rivers U.S. Interstates Gridlines
NWS WFOs NPS Units Climate Divs
Major World Cities World Roads (adds 1:00)

Last month to start evaluation (e.g., 2 for Feb): 1

Number of months (up to 12) to evaluate (e.g., 3 for Dec-Feb): 1

Year of last month for assessment: 2024

Note 1: Do not select a date in the future!
Note 2: Make sure that your period is not 1939-40. There is no 1939 data.
Note 3: Even when generating normals, make sure not to pick a date in the future.

Values or Departure strip (1=Values, 2=Departure): 1
Show Values or Departure strip (1=Yes, 2=No): 1

Begin Climo 1991 **End** Climo 2020

Central Longitude (Arctic Only) 0
(Used for Map Type options 2 and 3 above)

ENSO Section Only ONI Min -5.0 ONI Max 5.0 [Use to select from a range of average ONI val; or enter list of years manually below.]

OR List of years
Map Subtitle (used when a list of years is entered) 20 chars or less
Above/Below (1=Above/2=Below): 1 100.0 From Climo. Use Detrended Climatology (ONI or list of years)

[Note 1: Only Used if Map Type is 9. Takes 6 mins for new query. Min of 4+ years and separated by commas has priority. For DJF use end year.]
[Note 2: For the count of years above the trendline, units are % avg for snow and precip and clouds. Specify units below for temp, dew pt, and wind.

Units -> Metric or Imperial (1 = Metric, 2 = Imperial): 2

Temp/Wind Departure/Temp Trend Interval 1.0 (Makes 11 categories of Map Interval size.)

Dark Mode :

Raw data obtained from Copernicus ECMWF Server. Analysis may not be accurate. **Use at your own risk!**

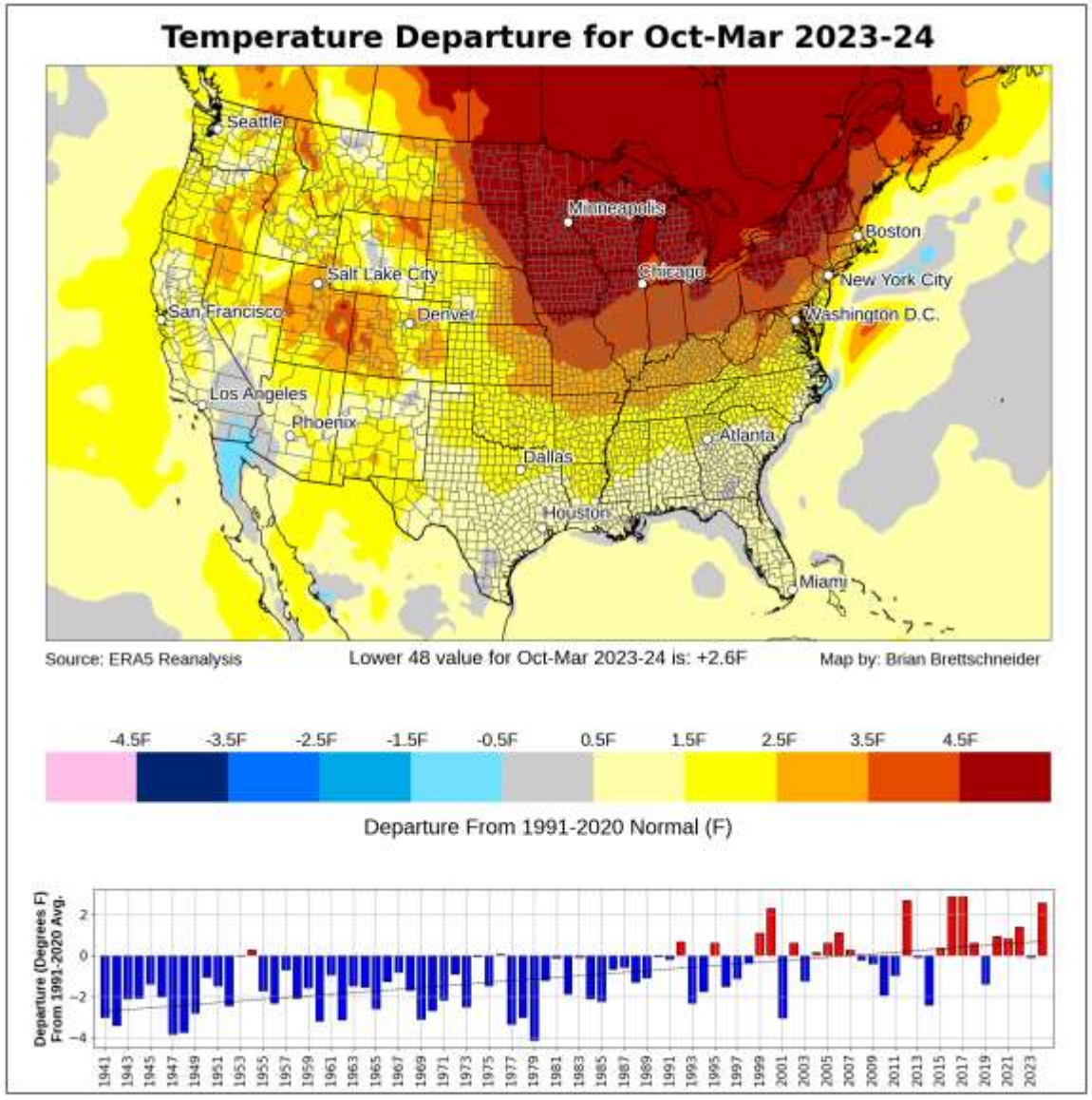
Generate (to reset form, select map area 0 and press button)

Departure Map Examples

Note: Temperature, Dew Point, SST, and wind (no sea ice) display departure in metric/imperial units. Clouds uses Percent (0%-100%). Precipitation and snowfall display Departure as a percent of the normal value and the ranges Are pre-defined.

Contiguous U.S. Oct 2023-Mar 2024 Temperature Departure

Units are imperial and the map categories are 1 unit (1F) apart
Imperial departure from 1991-2020 normal time series strip on bottom
States, Canadian Provinces, and counties added to map.



Select Map Area (1-10): 3

1 = Global (time: 0:30 to 1:20)
2 = U.S./Canada (time: 0:30 to 1:40)
3 = Contiguous U.S. (time: 0:30 to 1:50)
4 = Alaska (time: 0:30 to 1:30) Indigenous names
5 = Alaska and NW Canada (time: 0:30 to 1:15)
6 = Polar (time: 0:30 to 1:30) (60 to 90) North
7 = Europe (time: 0:30 to 1:20)
8 = Pacific Northwest (time: 0:30 to 1:35)
9 = U.S. Pacific Islands (time: 0:30 to 1:25)
10 = Country, State, Province, or Box (all Plate Carree)
Global
Countries (e.g., Country New Zealand)
States (e.g., State New York)
Canada provinces/territories (e.g., Canada Manitoba)
Box, N. Lat, S. Lat, W. Lon, E. Lon (Example: Box,45,25,-120,-50)

Select Map Type (1-9): 2

1 = Ranks (since 1940)
2 = Departure From Normal (not clouds/wind)
3 = Below, Near, Above Normal (slower)
4 = Target Year Values (not wind)
5 = Normal Values (not wind)
6 = 50 or 75-Year trend (8-10 mins for new run)
7 = 50-Year ENSO Season Correlation (6-10 mins for new run)
8 = SPI (precip auto selected; 8-mins for new run)
9 = Composite ENSO or List of Years (6-mins for new run)

Ranks / trend start year 1940

Note: For periods that wrap around New Year, the start year should by the year at the start of the period. For 1974-75 to 2023-24, (50 years), enter 1974 here (end year should be most current year).

Choose Map Theme (1-8): 1

Available themes: 1 = t2m, 2 = precip, 3 = snow, 4 = sst , 5 = dewpt, 6 = clouds, 7 = wind, 8 = seaice

Map Elements (Check top row for most N. American maps)
Lower 48 States U.S. Counties Canada Provinces
Major Rivers U.S. Interstates Gridlines
NWS WFOs NPS Units Climate Divs
Major World Cities World Roads (adds 1:00)

Last month to start evaluation (e.g., 2 for Feb): 3

Number of months (up to 12) to evaluate (e.g., 3 for Dec-Feb): 6

Year of last month for assessment: 2024

Note 1: Do not select a date in the future!
Note 2: Make sure that your period is not 1939-40. There is no 1939 data.
Note 3: Even when generating normals, make sure not to pick a date in the future.

Values or Departure strip (1=Values, 2=Departure): 2
Show Values or Departure strip (1=Yes, 2=No): 1

Begin Climo 1991 **End** Climo 2020

Central Longitude (Arctic Only) 0
(Used for Map Type options 2 and 3 above)

ENSO Section Only ONI Min -5.0 ONI Max 5.0 [Use to select from a range of average ONI val; or enter list of years manually below.]

OR List of years
Map Subtitle (used when a list of years is entered) 20 chars or less
Above/Below (1=Above/2=Below): 1 100.0 From Climo. Use Detrended Climatology (ONI or list of years)

[Note 1: Only Used if Map Type is 9. Takes 6 mins for new query. Min of 4+ years and separated by commas has priority. For DJF use end year.]
[Note 2: For the count of years above the trendline, units are % avg for snow and precip and clouds. Specify units below for temp, dew pt, and wind.

Units -> Metric or Imperial (1 = Metric, 2 = Imperial): 2

Temp/Wind Departure/Temp Trend Interval 1.0 (Makes 11 categories of Map Interval size.)

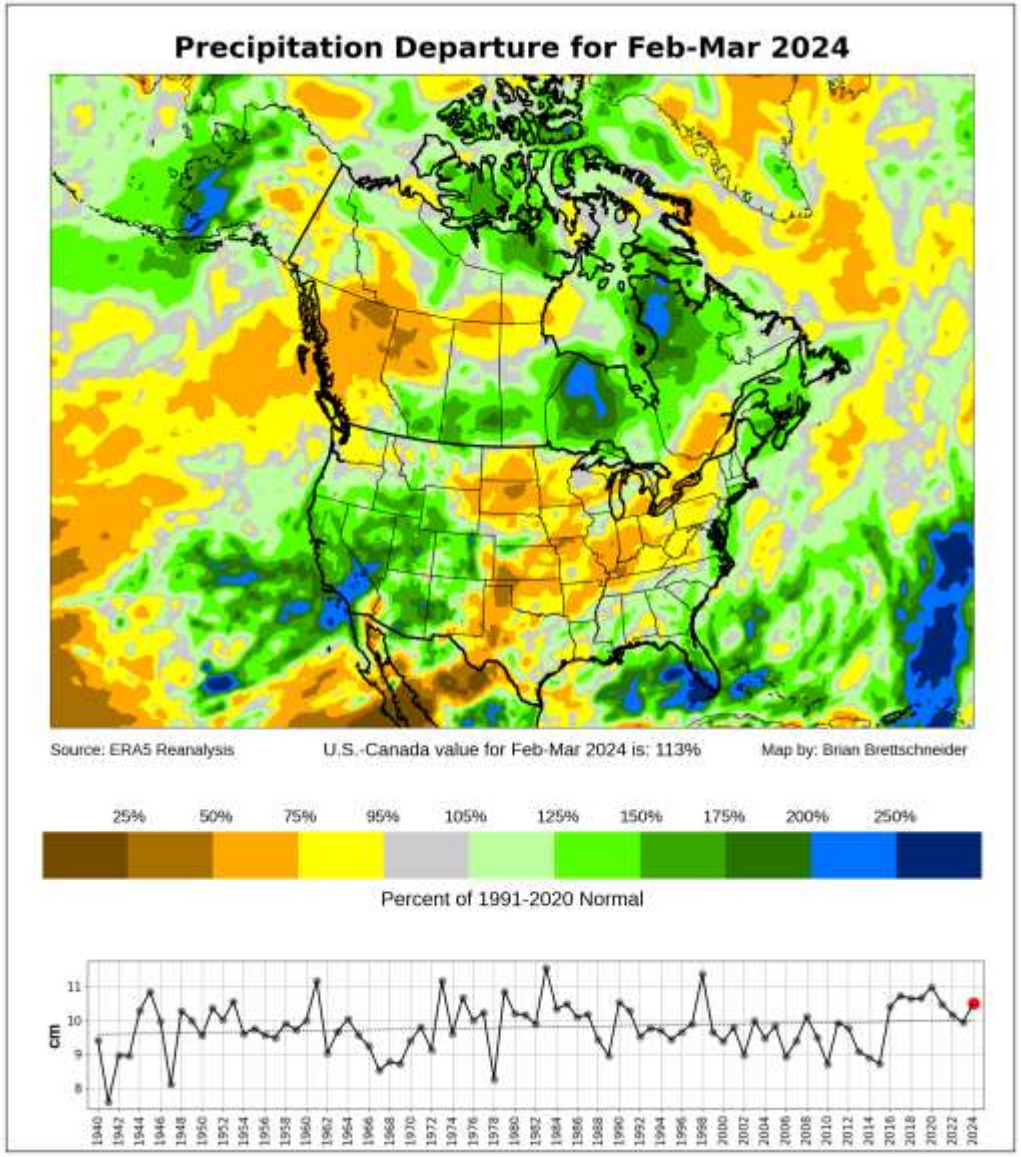
Dark Mode :

Raw data obtained from Copernicus ECMWF Server. Analysis may not be accurate. **Use at your own risk!**

Generate (to reset form, select map area 0 and press button)

U.S. and Canada Feb-Mar 2024 Precipitation Departure

Percent of 1991-2020 normal precipitation. Fixed categories
Metric values time series strip on bottom
States and Canadian Provinces added to map



Select Map Area (1-10): 2

1 = Global (time: 0:30 to 1:20)
2 = U.S./Canada (time: 0:30 to 1:40)
3 = Contiguous U.S. (time: 0:30 to 1:50)
4 = Alaska (time: 0:30 to 1:30) Indigenous names
5 = Alaska and NW Canada (time: 0:30 to 1:15)
6 = Polar (time: 0:30 to 1:30) (60 to 90) North
7 = Europe (time: 0:30 to 1:20)
8 = Pacific Northwest (time: 0:30 to 1:35)
9 = U.S. Pacific Islands (time: 0:30 to 1:25)
10 = Country, State, Province, or Box (all Plate Carree)
Global
Countries (e.g., Country New Zealand)
States (e.g., State New York)
Canada provinces/territories (e.g., Canada Manitoba)
Box, N. Lat, S. Lat, W. Lon, E. Lon (Example: Box,45,25,-120,-50)

Select Map Type (1-9): 2

1 = Ranks (since 1940)
2 = Departure From Normal (not clouds/wind)
3 = Below, Near, Above Normal (slower)
4 = Target Year Values (not wind)
5 = Normal Values (not wind)
6 = 50 or 75-Year trend (8-10 mins for new run)
7 = 50-Year ENSO Season Correlation (6-10 mins for new run)
8 = SPI (precip auto selected; 8-mins for new run)
9 = Composite ENSO or List of Years (6-mins for new run)

Ranks / trend start year 1940

Note: For periods that wrap around New Year, the start year should by the year at the start of the period. For 1974-75 to 2023-24, (50 years), enter 1974 here (end year should be most current year).

Choose Map Theme (1-8): 2

Available themes: 1 = t2m, 2 = precip, 3 = snow, 4 = sst , 5 = dewpt, 6 = clouds, 7 = wind, 8 = seaice

Map Elements (Check top row for most N. American maps)
Lower 48 States U.S. Counties Canada Provinces
Major Rivers U.S. Interstates Gridlines
NWS WFOs NPS Units Climate Divs
Major World Cities World Roads (adds 1:00)

Last month to start evaluation (e.g., 2 for Feb): 3

Number of months (up to 12) to evaluate (e.g., 3 for Dec-Feb): 2

Year of last month for assessment: 2024

Note 1: Do not select a date in the future!
Note 2: Make sure that your period is not 1939-40. There is no 1939 data.
Note 3: Even when generating normals, make sure not to pick a date in the future.

Values or Departure strip (1=Values, 2=Departure): 1
Show Values or Departure strip (1=Yes, 2=No): 1

Begin Climo 1991 **End** Climo 2020

Central Longitude (Arctic Only) 0
(Used for Map Type options 2 and 3 above)

ENSO Section Only ONI Min -5.0 ONI Max 5.0 [Use to select from a range of average ONI val; or enter list of years manually below.]

OR List of years
Map Subtitle (used when a list of years is entered) 20 chars or less
Above/Below (1=Above/2=Below): 1 100.0 From Climo. Use Detrended Climatology (ONI or list of years)

[Note 1: Only Used if Map Type is 9. Takes 6 mins for new query. Min of 4+ years and separated by commas has priority. For DJF use end year.]
[Note 2: For the count of years above the trendline, units are % avg for snow and precip and clouds. Specify units below for temp, dew pt, and wind.

Units -> Metric or Imperial (1 = Metric, 2 = Imperial): 1

Temp/Wind Departure/Temp Trend Interval 1.0 (Makes 11 categories of Map Interval size.)

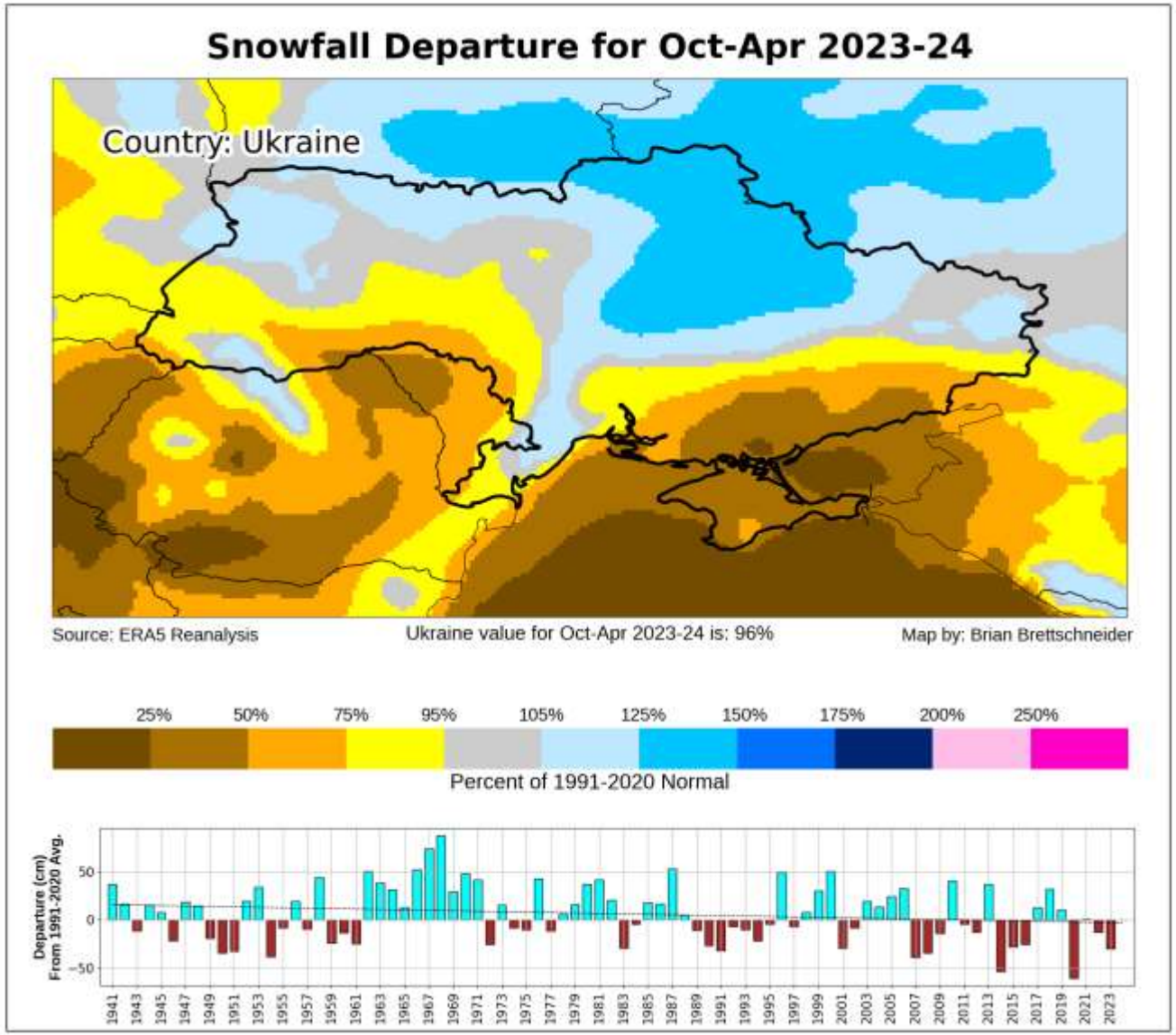
Dark Mode :

Raw data obtained from Copernicus ECMWF Server. Analysis may not be accurate. **Use at your own risk!**

Generate (to reset form, select map area 0 and press button)

Ukraine Oct 2023-Apr 2024 Snowfall Departure

Percent of 1991-2020 normal snowfall. Fixed categories
Metric departure time series strip on bottom
No other map elements added



Select Map Area (1-10): 10

1 = Global (time: 0:30 to 1:20)
2 = U.S./Canada (time: 0:30 to 1:40)
3 = Contiguous U.S. (time: 0:30 to 1:50)
4 = Alaska (time: 0:30 to 1:30) ☑ Indigenous names
5 = Alaska and NW Canada (time: 0:30 to 1:15)
6 = Polar (time: 0:30 to 1:30) (60 to 90) North ☑
7 = Europe (time: 0:30 to 1:20)
8 = Pacific Northwest (time: 0:30 to 1:35)
9 = U.S. Pacific Islands (time: 0:30 to 1:25)
10 = Country, State, Province, or Box (all Plate Carree)

Country Ukraine

Countries (e.g., Country New Zealand)
States (e.g., State New York)
Canada provinces/territories (e.g., Canada Manitoba)
Box, N. Lat, S. Lat, W. Lon, E. Lon (Example: Box,45,25,-120,-50)

Select Map Type (1-9): 2

1 = Ranks (since 1940)
2 = Departure From Normal (not clouds/wind)
3 = Below, Near, Above Normal (slower)
4 = Target Year Values (not wind)
5 = Normal Values (not wind)
6 = 50 or 75-Year trend (8-10 mins for new run)
7 = 50-Year ENSO Season Correlation (6-10 mins for new run)
8 = SPI (precip auto selected; 8-mins for new run)
9 = Composite ENSO or List of Years (6-mins for new run)

Ranks / trend start year: 1940

Note: For periods that wrap around New Year, the start year should by the year at the start of the period. For 1974-75 to 2023-24, (50 years), enter 1974 here (end year should be most current year).

Choose Map Theme (1-8): 3

Available themes: 1 = t2m, 2 = precip, 3 = snow, 4 = sst , 5 = dewpt, 6 = clouds, 7 = wind, 8 = seaice

Map Elements (Check top row for most N. American maps)
Lower 48 States ☐ U.S. Counties ☐ Canada Provinces ☐
Major Rivers ☐ U.S. Interstates ☐ Gridlines ☐
NWS WFOs ☐ NPS Units ☐ Climate Divs ☐
Major World Cities ☐ World Roads (adds 1:00) ☐

Last month to start evaluation (e.g., 2 for Feb): 4

Number of months (up to 12) to evaluate (e.g., 3 for Dec-Feb): 7

Year of last month for assessment: 2024

Note 1: Do not select a date in the future!
Note 2: Make sure that your period is not 1939-40. There is no 1939 data.
Note 3: Even when generating normals, make sure not to pick a date in the future.

Values or Departure strip (1=Values, 2=Departure): 2
Show Values or Departure strip (1=Yes, 2=No): 1

Begin Climo: 1991 **End** Climo: 2020

Central Longitude (Arctic Only): 0
(Used for Map Type options 2 and 3 above)

ENSO Section Only ONI Min: -5.0 ONI Max: 5.0 [Use to select from a range of average ONI val; or enter list of years manually below.]

OR List of years:
Map Subtitle (used when a list of years is entered): 20 chars or less
Above/Below (1=Above/2=Below): 1 100.0 From Climo. Use Detrended Climatology (ONI or list of years) ☑

[Note 1: Only Used if Map Type is 9. Takes 6 mins for new query. Min of 4+ years and separated by commas has priority. For DJF use end year.]
[Note 2: For the count of years above the trendline, units are % avg for snow and precip and clouds. Specify units below for temp, dew pt, and wind.

Units -> Metric or Imperial (1 = Metric, 2 = Imperial): 1

Temp/Wind Departure/Temp Trend Interval: 1.0 (Makes 11 categories of Map Interval size.)

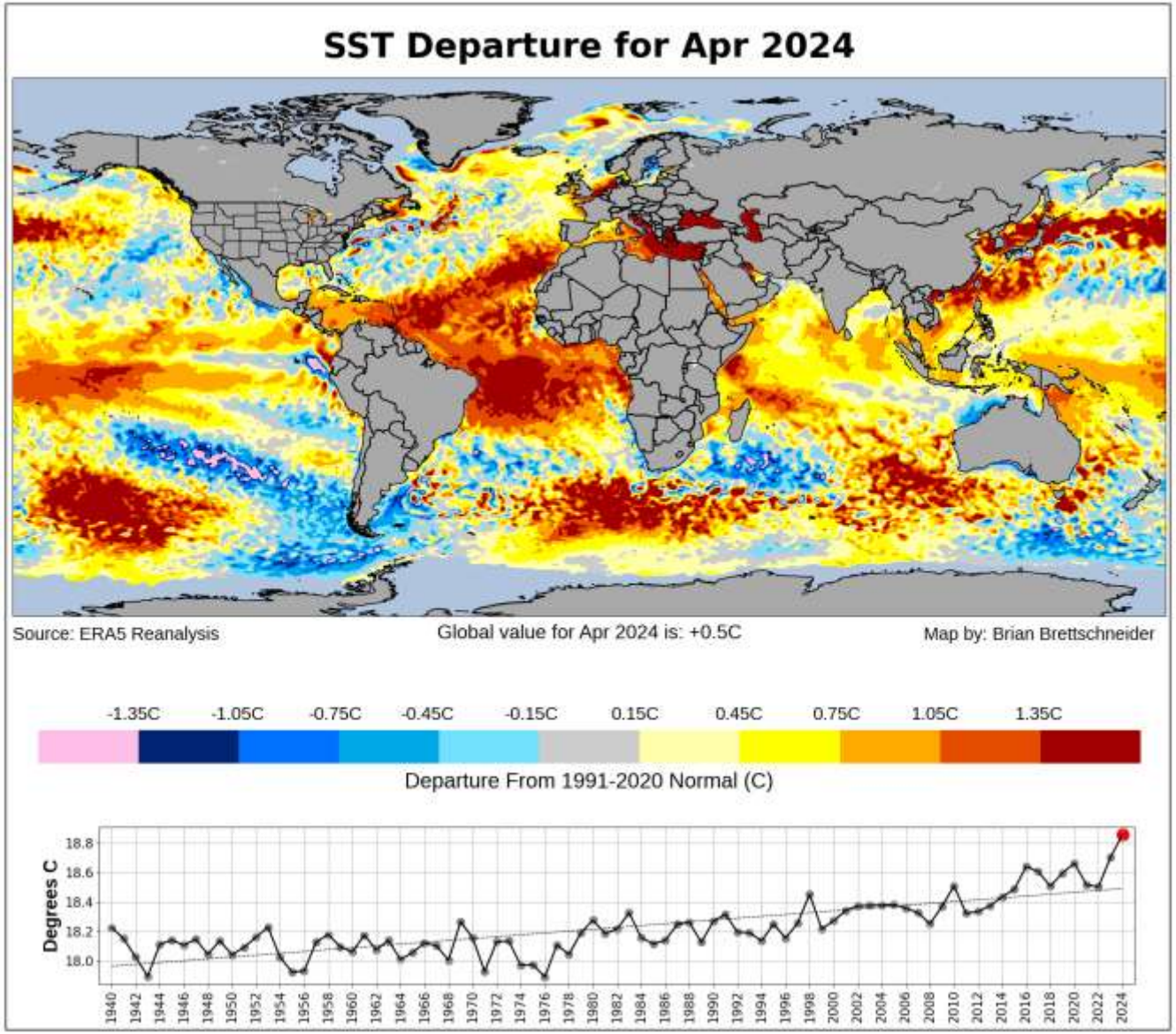
Dark Mode : ☐

Raw data obtained from Copernicus ECMWF Server. Analysis may not be accurate. **Use at your own risk!**

Generate (to reset form, select map area 0 and press button)

Global Apr 2024 SST Departure

Units are metric and the map categories are 0.3 units (0.3C) apart
Metric values time series strip on bottom
Areas with sea ice are not shown.



Select Map Area (1-10) 1

1 = Global (time: 0:30 to 1:20)
2 = U.S./Canada (time: 0:30 to 1:40)
3 = Contiguous U.S. (time: 0:30 to 1:50)
4 = Alaska (time: 0:30 to 1:30) Indigenous names
5 = Alaska and NW Canada (time: 0:30 to 1:15)
6 = Polar (time: 0:30 to 1:30) (60 to 90) North
7 = Europe (time: 0:30 to 1:20)
8 = Pacific Northwest (time: 0:30 to 1:35)
9 = U.S. Pacific Islands (time: 0:30 to 1:25)
10 = Country, State, Province, or Box (all Plate Carree)

Country Ukraine

Countries (e.g., Country New Zealand)
States (e.g., State New York)
Canada provinces/territories (e.g., Canada Manitoba)
Box, N. Lat, S. Lat, W. Lon, E. Lon (Example: Box,45,25,-120,-50)

Select Map Type (1-9) 2

1 = Ranks (since 1940)
2 = Departure From Normal (not clouds/wind)
3 = Below, Near, Above Normal (slower)
4 = Target Year Values (not wind)
5 = Normal Values (not wind)
6 = 50 or 75-Year trend (8-10 mins for new run)
7 = 50-Year ENSO Season Correlation (6-10 mins for new run)
8 = SPI (precip auto selected; 8-mins for new run)
9 = Composite ENSO or List of Years (6-mins for new run)

Ranks / trend start year 1940

Note: For periods that wrap around New Year, the start year should by the year at the start of the period. For 1974-75 to 2023-24, (50 years), enter 1974 here (end year should be most current year).

Choose Map Theme (1-8): 4

Available themes: 1 = t2m, 2 = precip, 3 = snow, 4 = sst , 5 = dewpt, 6 = clouds, 7 = wind, 8 = seaice

Map Elements (Check top row for most N. American maps)
Lower 48 States U.S. Counties Canada Provinces
Major Rivers U.S. Interstates Gridlines
NWS WFOs NPS Units Climate Divs
Major World Cities World Roads (adds 1:00)

Last month to start evaluation (e.g., 2 for Feb): 4

Number of months (up to 12) to evaluate (e.g., 3 for Dec-Feb): 1

Year of last month for assessment: 2024

Note 1: Do not select a date in the future!
Note 2: Make sure that your period is not 1939-40. There is no 1939 data.
Note 3: Even when generating normals, make sure not to pick a date in the future.

Values or Departure strip (1=Values, 2=Departure): 1
Show Values or Departure strip (1=Yes, 2=No): 1

Begin Climo 1991 **End** Climo 2020

Central Longitude (Arctic Only) 0
(Used for Map Type options 2 and 3 above)

ENSO Section Only ONI Min -5.0 ONI Max 5.0 [Use to select from a range of average ONI val; or enter list of years manually below.]

OR List of years

Map Subtitle (used when a list of years is entered) 20 chars or less
Above/Below (1=Above/2=Below): 1 100.0 From Climo. Use Detrended Climatology (ONI or list of years)

[Note 1: Only Used if Map Type is 9. Takes 6 mins for new query. Min of 4+ years and separated by commas has priority. For DJF use end year.]
[Note 2: For the count of years above the trendline, units are % avg for snow and precip and clouds. Specify units below for temp, dew pt, and wind.

Units -> Metric or Imperial (1 = Metric, 2 = Imperial): 1

Temp/Wind Departure/Temp Trend Interval 0.3 (Makes 11 categories of Map Interval size.)

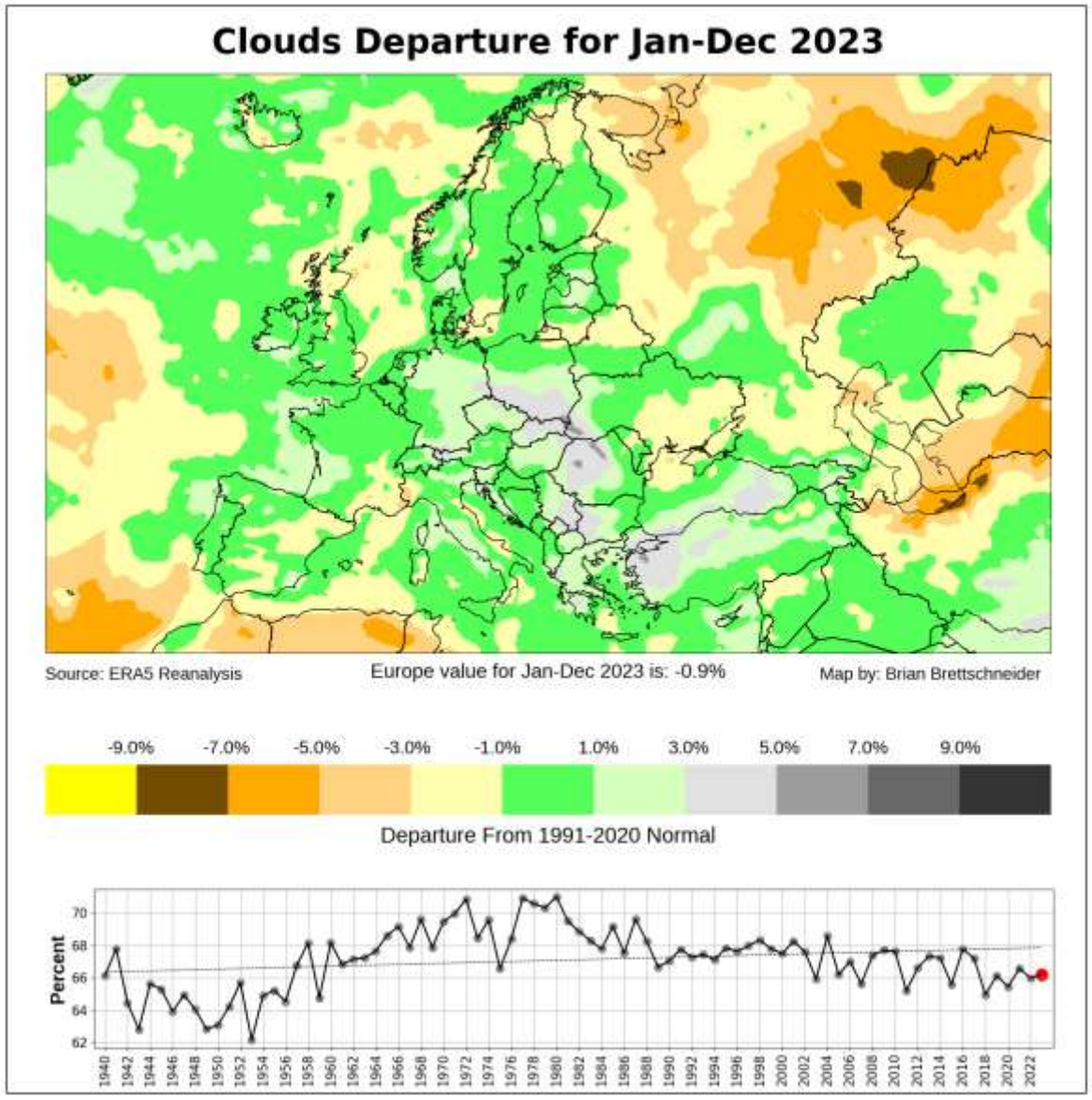
Dark Mode :

Raw data obtained from Copernicus ECMWF Server. Analysis may not be accurate. **Use at your own risk!**

Generate (to reset form, select map area 0 and press button)

Europe Jan-Dec 2023 Clouds Departure

Units are percent and the map categories are 2 units (2%) apart
The departure is the measurement percent minus normal percent
Percent time series strip on bottom



Select Map Area (1-10) 7

1 = Global (time: 0:30 to 1:20)
2 = U.S./Canada (time: 0:30 to 1:40)
3 = Contiguous U.S. (time: 0:30 to 1:50)
4 = Alaska (time: 0:30 to 1:30) Indigenous names
5 = Alaska and NW Canada (time: 0:30 to 1:15)
6 = Polar (time: 0:30 to 1:30) (60 to 90) North
7 = Europe (time: 0:30 to 1:20)
8 = Pacific Northwest (time: 0:30 to 1:35)
9 = U.S. Pacific Islands (time: 0:30 to 1:25)
10 = Country, State, Province, or Box (all Plate Carree)
Country Ukraine
Countries (e.g., Country New Zealand)
States (e.g., State New York)
Canada provinces/territories (e.g., Canada Manitoba)
Box, N. Lat, S. Lat, W. Lon, E. Lon (Example: Box,45,25,-120,-50)

Select Map Type (1-9) 2

1 = Ranks (since 1940)
2 = Departure From Normal (not clouds/wind)
3 = Below, Near, Above Normal (slower)
4 = Target Year Values (not wind)
5 = Normal Values (not wind)
6 = 50 or 75-Year trend (8-10 mins for new run)
7 = 50-Year ENSO Season Correlation (6-10 mins for new run)
8 = SPI (precip auto selected; 8-mins for new run)
9 = Composite ENSO or List of Years (6-mins for new run)

Ranks / trend start year 1940

Note: For periods that wrap around New Year, the start year should by the year at the start of the period. For 1974-75 to 2023-24, (50 years), enter 1974 here (end year should be most current year).

Choose Map Theme (1-8): 6

Available themes: 1 = t2m, 2 = precip, 3 = snow, 4 = sst , 5 = dewpt, 6 = clouds, 7 = wind, 8 = seaice

Map Elements (Check top row for most N. American maps)
Lower 48 States U.S. Counties Canada Provinces
Major Rivers U.S. Interstates Gridlines
NWS WFOs NPS Units Climate Divs
Major World Cities World Roads (adds 1:00)

Last month to start evaluation (e.g., 2 for Feb) 12

Number of months (up to 12) to evaluate (e.g., 3 for Dec-Feb) 12

Year of last month for assessment: 2023

Note 1: Do not select a date in the future!
Note 2: Make sure that your period is not 1939-40. There is no 1939 data.
Note 3: Even when generating normals, make sure not to pick a date in the future.

Values or Departure strip (1=Values, 2=Departure): 1
Show Values or Departure strip (1=Yes, 2=No): 1

Begin Climo 1991 **End** Climo 2020

Central Longitude (Arctic Only) 0
(Used for Map Type options 2 and 3 above)

ENSO Section Only ONI Min -5.0 ONI Max 5.0 [Use to select from a range of average ONI val; or enter list of years manually below.]

OR List of years
Map Subtitle (used when a list of years is entered) 20 chars or less
Above/Below (1=Above/2=Below): 1 100.0 From Climo. Use Detrended Climatology (ONI or list of years)

[Note 1: Only Used if Map Type is 9. Takes 6 mins for new query. Min of 4+ years and separated by commas has priority. For DJF use end year.]
[Note 2: For the count of years above the trendline, units are % avg for snow and precip and clouds. Specify units below for temp, dew pt, and wind.

Units -> Metric or Imperial (1 = Metric, 2 = Imperial): 1

Temp/Wind Departure/Temp Trend Interval 2 (Makes 11 categories of Map Interval size.)

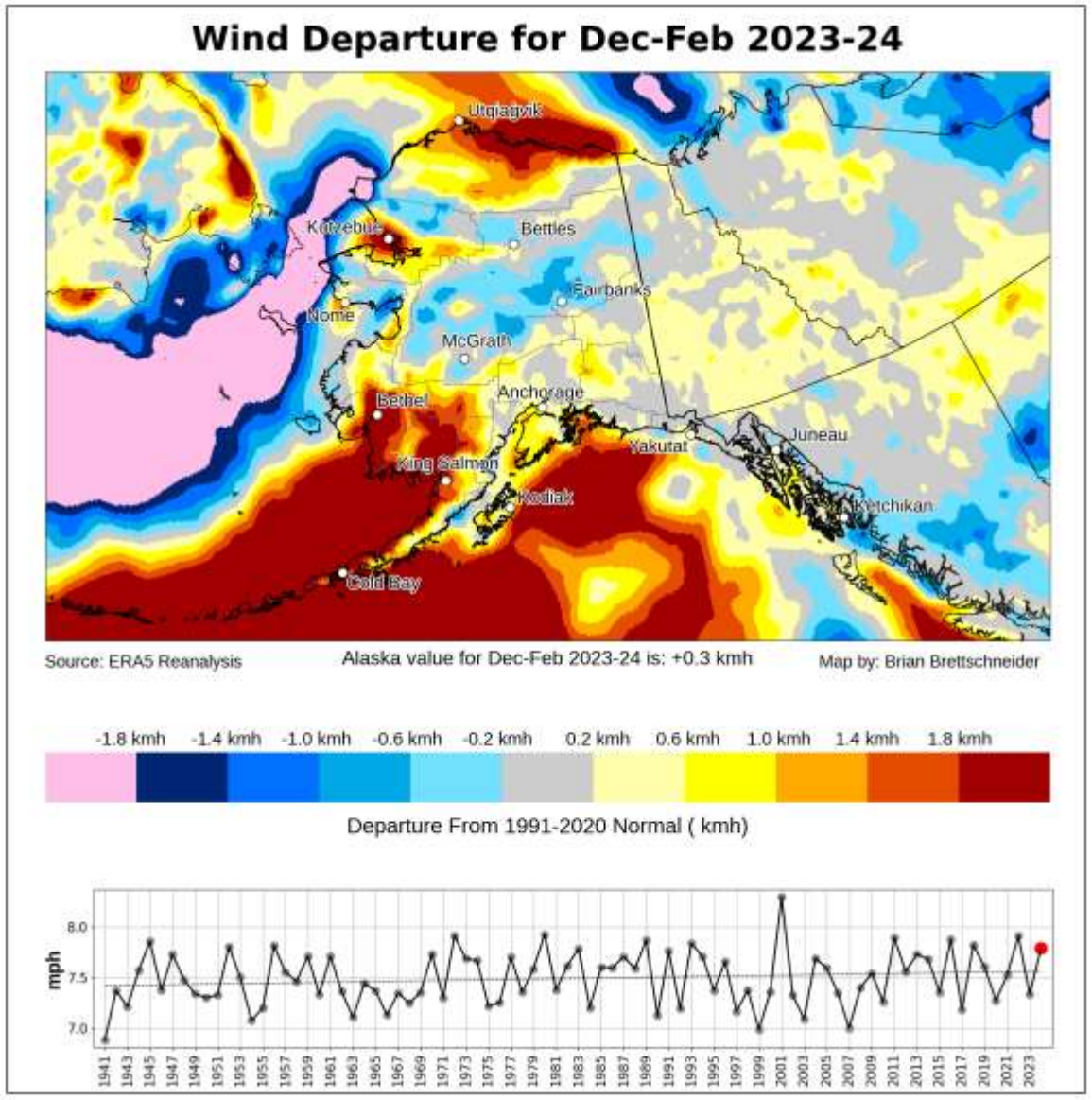
Dark Mode :

Raw data obtained from Copernicus ECMWF Server. Analysis may not be accurate. **Use at your own risk!**

Generate (to reset form, select map area 0 and press button)

Alaska Dec 2023-Feb 2024 Wind Departure

Units are kmh and the map categories are 0.4 units (0.4 kmh) apart
The departure is the departure from 1991-2020 normal
Percent time series strip on bottom



Select Map Area (1-10) 4

1 = Global (time: 0:30 to 1:20)
2 = U.S./Canada (time: 0:30 to 1:40)
3 = Contiguous U.S. (time: 0:30 to 1:50)
4 = Alaska (time: 0:30 to 1:30) ☐ Indigenous names
5 = Alaska and NW Canada (time: 0:30 to 1:15)
6 = Polar (time: 0:30 to 1:30) (60 to 90) North ☑
7 = Europe (time: 0:30 to 1:20)
8 = Pacific Northwest (time: 0:30 to 1:35)
9 = U.S. Pacific Islands (time: 0:30 to 1:25)
10 = Country, State, Province, or Box (all Plate Carree)
Global
Countries (e.g., Country New Zealand)
States (e.g., State New York)
Canada provinces/territories (e.g., Canada Manitoba)
Box, N. Lat, S. Lat, W. Lon, E. Lon (Example: Box,45,25,-120,-50)

Select Map Type (1-9) 2

1 = Ranks (since 1940)
2 = Departure From Normal (not clouds/wind)
3 = Below, Near, Above Normal (slower)
4 = Target Year Values (not wind)
5 = Normal Values (not wind)
6 = 50 or 75-Year trend (8-10 mins for new run)
7 = 50-Year ENSO Season Correlation (6-10 mins for new run)
8 = SPI (precip auto selected; 8-mins for new run)
9 = Composite ENSO or List of Years (6-mins for new run)

Ranks / trend start year 1940

Note: For periods that wrap around New Year, the start year should by the year at the start of the period. For 1974-75 to 2023-24, (50 years), enter 1974 here (end year should be most current year).

Choose Map Theme (1-8) 7

Available themes: 1 = t2m, 2 = precip, 3 = snow, 4 = sst , 5 = dewpt, 6 = clouds, 7 = wind, 8 = seaice

Map Elements (Check top row for most N. American maps)
Lower 48 States ☑ U.S. Counties ☑ Canada Provinces ☑
Major Rivers ☐ U.S. Interstates ☐ Gridlines ☐
NWS WFOs ☐ NPS Units ☐ Climate Divs ☐
Major World Cities ☐ World Roads (adds 1:00) ☐

Last month to start evaluation (e.g., 2 for Feb) 2

Number of months (up to 12) to evaluate (e.g., 3 for Dec-Feb) 3

Year of last month for assessment 2024

Note 1: Do not select a date in the future!
Note 2: Make sure that your period is not 1939-40. There is no 1939 data.
Note 3: Even when generating normals, make sure not to pick a date in the future.

Values or Departure strip (1=Values, 2=Departure): 1
Show Values or Departure strip (1=Yes, 2=No): 1

Begin Climo 1991 **End** Climo 2020

Central Longitude (Arctic Only) 0
(Used for Map Type options 2 and 3 above)

ENSO Section Only ONI Min -5.0 ONI Max 5.0 [Use to select from a range of average ONI val; or enter list of years manually below.]

OR List of years
Map Subtitle (used when a list of years is entered) 20 chars or less
Above/Below (1=Above/2=Below): 1 100.0 From Climo. Use Detrended Climatology (ONI or list of years) ☑

[Note 1: Only Used if Map Type is 9. Takes 6 mins for new query. Min of 4+ years and separated by commas has priority. For DJF use end year.]
[Note 2: For the count of years above the trendline, units are % avg for snow and precip and clouds. Specify units below for temp, dew pt, and wind.

Units -> Metric or Imperial (1 = Metric, 2 = Imperial): 1

Temp/Wind Departure/Temp Trend Interval 0.4 (Makes 11 categories of Map Interval size.)

Dark Mode : ☐

Raw data obtained from Copernicus ECMWF Server. Analysis may not be accurate. **Use at your own risk!**

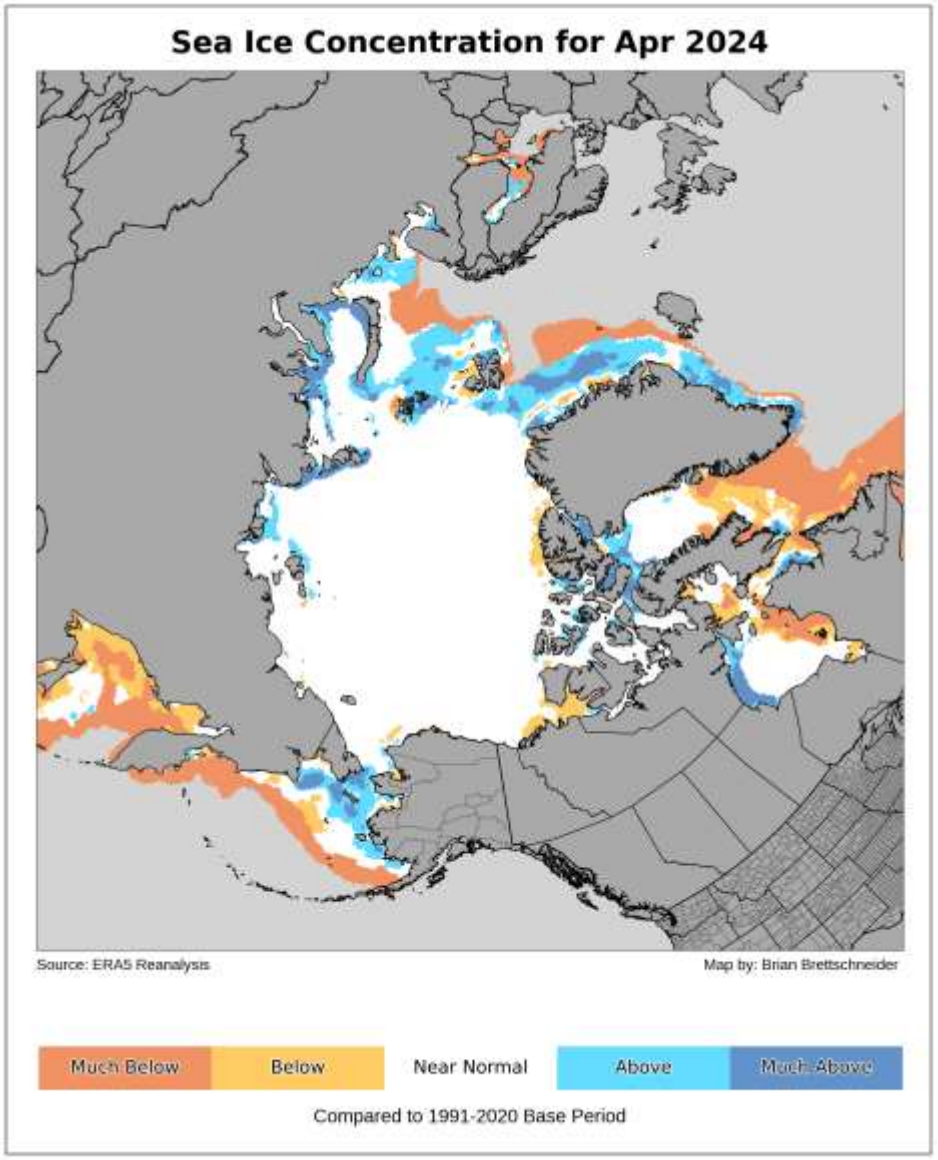
Generate (to reset form, select map area 0 and press button)

Below, Near, Above Normal

Note: This is a categorical analysis based on either a 30-year or 18-year base period. The Much Above category is in the top 10%, Above Normal is the rest of the top 1/3rd, Near Normal is the middle 1/3rd, Much Below is the bottom 10%, and Below Normal is the rest of the bottom 1/3rd.

North Polar April 2024 Sea Ice Categories

Uses the 1991-2020 baseline.
If 1991-2020 concentration is >0% and current year is 0%, it is mapped as Much Below.



Select Map Area (1-10) 5

1 = Global (time: 0:30 to 1:20)
2 = U.S./Canada (time: 0:30 to 1:40)
3 = Contiguous U.S. (time: 0:30 to 1:50)
4 = Alaska (time: 0:30 to 1:30) Indigenous names
5 = Alaska and NW Canada (time: 0:30 to 1:15)
6 = Polar (time: 0:30 to 1:30) (55 to 90) North
7 = Europe (time: 0:30 to 1:20)
8 = Pacific Northwest (time: 0:30 to 1:35)
9 = U.S. Pacific Islands (time: 0:30 to 1:25)
10 = Country, State, Province, or Box (all Plate Carree)
Global
Countries (e.g., Country New Zealand)
States (e.g., State New York)
Canada provinces/territories (e.g., Canada Manitoba)
Box, N. Lat, S. Lat, W. Lon, E. Lon (Example: Box,45,25,-120,-50)

Select Map Type (1-9) 3

1 = Ranks (since 1940)
2 = Departure From Normal (not clouds/wind)
3 = Below, Near, Above Normal (slower)
4 = Target Year Values (not wind)
5 = Normal Values (not wind)
6 = 50 or 75-Year trend (8-10 mins for new run)
7 = 50-Year ENSO Season Correlation (6-10 mins for new run)
8 = SPI (precip auto selected; 8-mins for new run)
9 = Composite ENSO or List of Years (6-mins for new run)

Ranks / trend start year 1940

Note: For periods that wrap around New Year, the start year should by the year at the start of the period. For 1974-75 to 2023-24, (50 years), enter 1974 here (end year should be most current year).

Choose Map Theme (1-8) 8

Available themes: 1 = t2m, 2 = precip, 3 = snow, 4 = sst , 5 = dewpt, 6 = clouds, 7 = wind, 8 = seaice

Map Elements (Check top row for most N. American maps)
Lower 48 States U.S. Counties Canada Provinces
Major Rivers U.S. Interstates Gridlines
NWS WFOs NPS Units Climate Divs
Major World Cities World Roads (adds 1:00)

Last month to start evaluation (e.g., 2 for Feb) 4

Number of months (up to 12) to evaluate (e.g., 3 for Dec-Feb): 1

Year of last month for assessment 2024

Note 1: Do not select a date in the future!
Note 2: Make sure that your period is not 1939-40. There is no 1939 data.
Note 3: Even when generating normals, make sure not to pick a date in the future.

Values or Departure strip (1=Values, 2=Departure): 1
Show Values or Departure strip (1=Yes, 2=No) 2

Begin Climo 1991 **End** Climo 2020

Central Longitude (Arctic Only) -150
(Used for Map Type options 2 and 3 above)

ENSO Section Only ONI Min -5.0 ONI Max 5.0 [Use to select from a range of average ONI val; or enter list of years manually below.]

OR List of years
Map Subtitle (used when a list of years is entered) 20 chars or less
Above/Below (1=Above/2=Below): 1 100.0 From Climo. Use Detrended Climatology (ONI or list of years)

[Note 1: Only Used if Map Type is 9. Takes 6 mins for new query. Min of 4+ years and separated by commas has priority. For DJF use end year.]
[Note 2: For the count of years above the trendline, units are % avg for snow and precip and clouds. Specify units below for temp, dew pt, and wind.

Units -> Metric or Imperial (1 = Metric, 2 = Imperial): 1

Temp/Wind Departure/Temp Trend Interval 1.0 (Makes 11 categories of Map Interval size.)

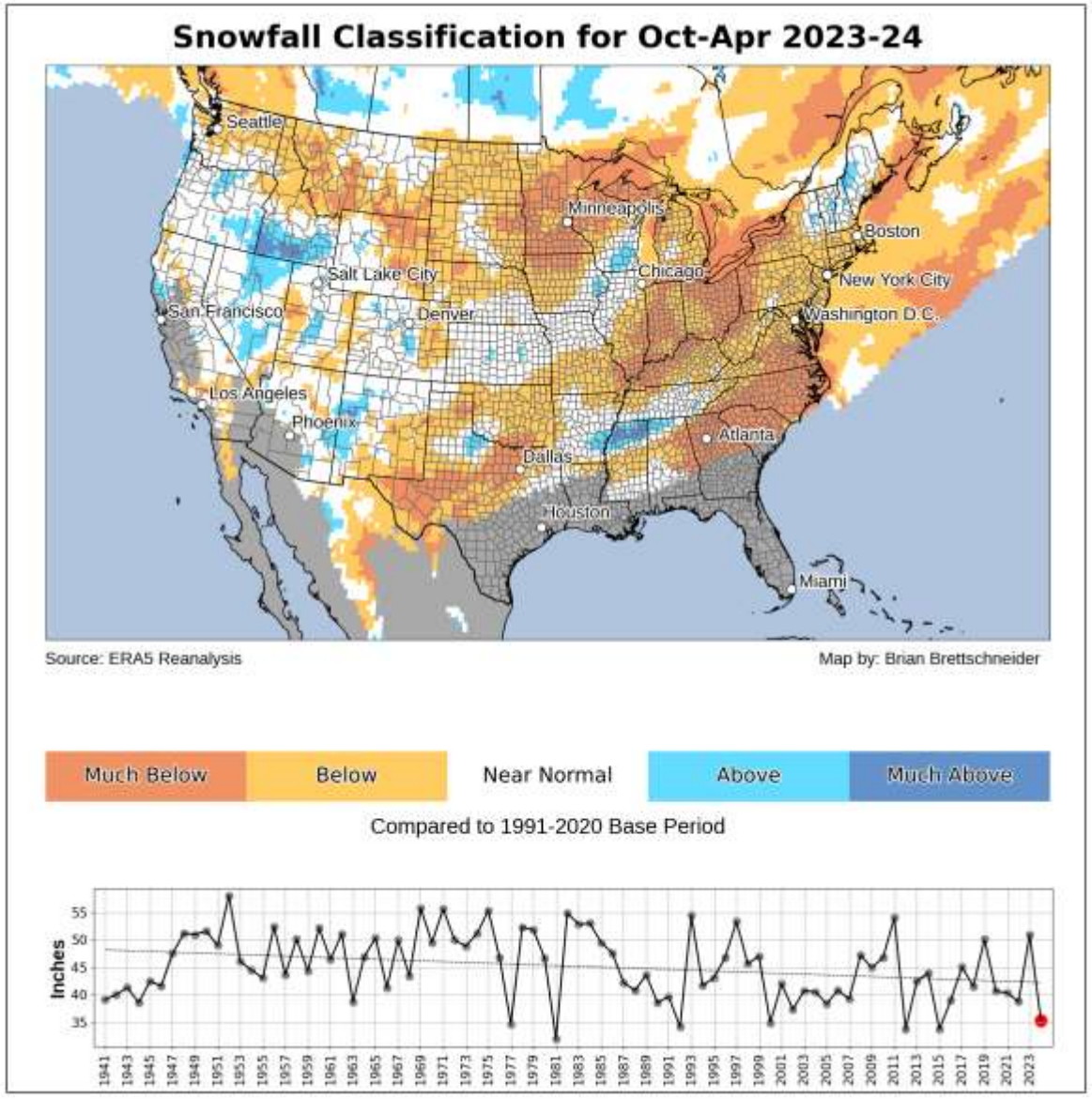
Dark Mode :

Raw data obtained from Copernicus ECMWF Server. Analysis may not be accurate. **Use at your own risk!**

Generate (to reset form, select map area 0 and press button)

Contiguous U.S. Oct 2023-Apr 2024 Snowfall Categories

Average snowfall must be >1” for inclusion
Snow is tough because, in theory, you want snow in all 30 years for inclusion
Time series of values in Imperial units



Select Map Area (1-10) 3

1 = Global (time: 0:30 to 1:20)
2 = U.S./Canada (time: 0:30 to 1:40)
3 = Contiguous U.S. (time: 0:30 to 1:50)
4 = Alaska (time: 0:30 to 1:30) Indigenous names
5 = Alaska and NW Canada (time: 0:30 to 1:15)
6 = Polar (time: 0:30 to 1:30) (55 to 90) North
7 = Europe (time: 0:30 to 1:20)
8 = Pacific Northwest (time: 0:30 to 1:35)
9 = U.S. Pacific Islands (time: 0:30 to 1:25)
10 = Country, State, Province, or Box (all Plate Carree)
Global
Countries (e.g., Country New Zealand)
States (e.g., State New York)
Canada provinces/territories (e.g., Canada Manitoba)
Box, N. Lat, S. Lat, W. Lon, E. Lon (Example: Box,45,25,-120,-50)

Select Map Type (1-9) 3

1 = Ranks (since 1940)
2 = Departure From Normal (not clouds/wind)
3 = Below, Near, Above Normal (slower)
4 = Target Year Values (not wind)
5 = Normal Values (not wind)
6 = 50 or 75-Year trend (8-10 mins for new run)
7 = 50-Year ENSO Season Correlation (6-10 mins for new run)
8 = SPI (precip auto selected; 8-mins for new run)
9 = Composite ENSO or List of Years (6-mins for new run)

Ranks / trend start year 1940

Note: For periods that wrap around New Year, the start year should by the year at the start of the period. For 1974-75 to 2023-24, (50 years), enter 1974 here (end year should be most current year).

Choose Map Theme (1-8): 3

Available themes: 1 = t2m, 2 = precip, 3 = snow, 4 = sst , 5 = dewpt, 6 = clouds, 7 = wind, 8 = seaice

Map Elements (Check top row for most N. American maps)
Lower 48 States U.S. Counties Canada Provinces
Major Rivers U.S. Interstates Gridlines
NWS WFOs NPS Units Climate Divs
Major World Cities World Roads (adds 1:00)

Last month to start evaluation (e.g., 2 for Feb) 4

Number of months (up to 12) to evaluate (e.g., 3 for Dec-Feb) 7

Year of last month for assessment: 2024

Note 1: Do not select a date in the future!
Note 2: Make sure that your period is not 1939-40. There is no 1939 data.
Note 3: Even when generating normals, make sure not to pick a date in the future.

Values or Departure strip (1=Values, 2=Departure): 1
Show Values or Departure strip (1=Yes, 2=No): 1

Begin Climo 1991 **End** Climo 2020

Central Longitude (Arctic Only) -150
(Used for Map Type options 2 and 3 above)

ENSO Section Only ONI Min -5.0 ONI Max 5.0 [Use to select from a range of average ONI val; or enter list of years manually below.]

OR List of years
Map Subtitle (used when a list of years is entered) 20 chars or less
Above/Below (1=Above/2=Below): 1 100.0 From Climo. Use Detrended Climatology (ONI or list of years)

[Note 1: Only Used if Map Type is 9. Takes 6 mins for new query. Min of 4+ years and separated by commas has priority. For DJF use end year.]
[Note 2: For the count of years above the trendline, units are % avg for snow and precip and clouds. Specify units below for temp, dew pt, and wind.

Units -> Metric or Imperial (1 = Metric, 2 = Imperial): 2

Temp/Wind Departure/Temp Trend Interval 1.0 (Makes 11 categories of Map Interval size.)

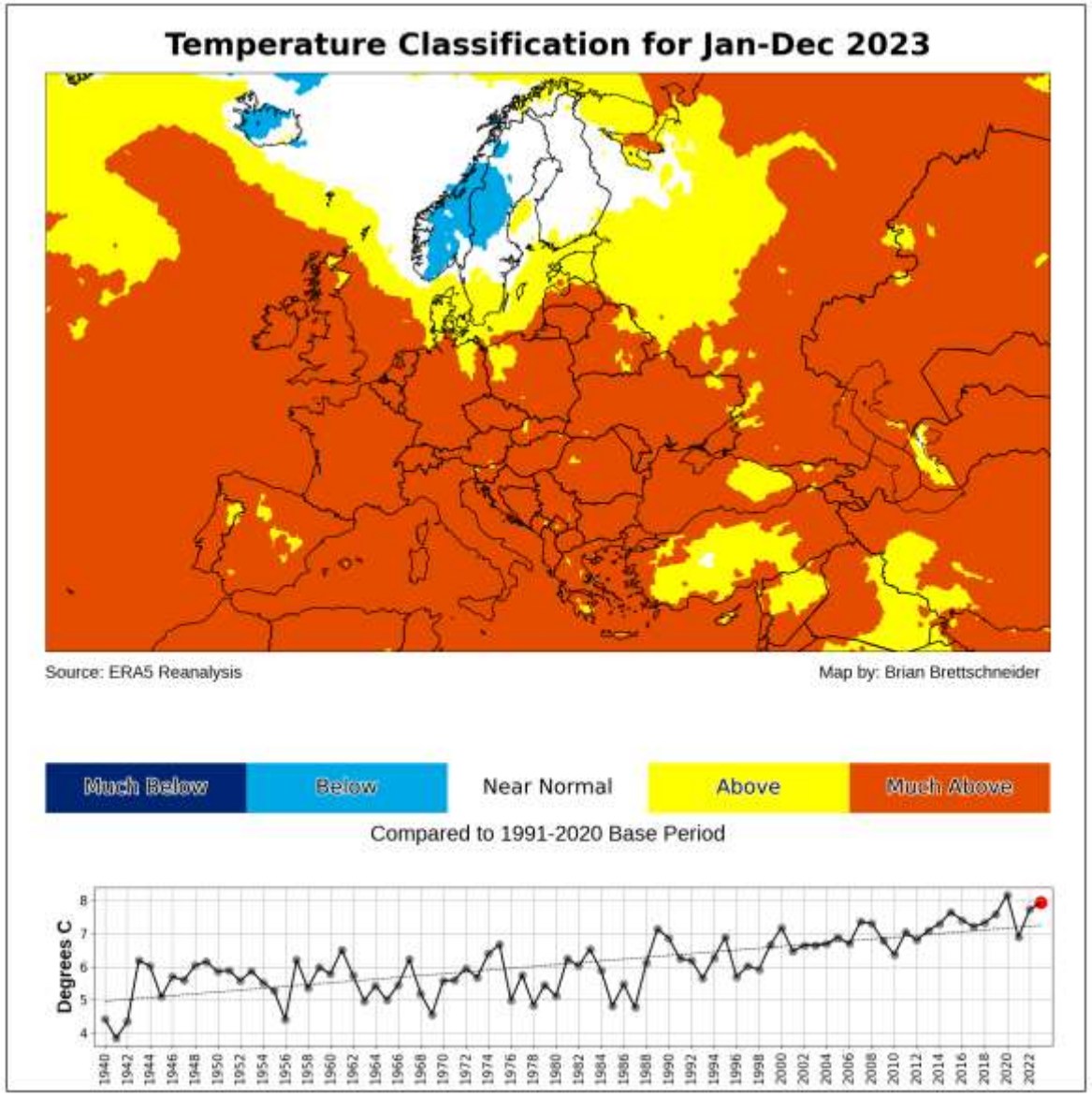
Dark Mode :

Raw data obtained from Copernicus ECMWF Server. Analysis may not be accurate. **Use at your own risk!**

Generate (to reset form, select map area 0 and press button)

Europe Jan-Dec 2023 Temperature Categories

Uses 1991-2020 Baseline
Metric values time series strip on bottom
No other map elements added



Select Map Area (1-10): 7

1 = Global (time: 0:30 to 1:20)
2 = U.S./Canada (time: 0:30 to 1:40)
3 = Contiguous U.S. (time: 0:30 to 1:50)
4 = Alaska (time: 0:30 to 1:30) Indigenous names
5 = Alaska and NW Canada (time: 0:30 to 1:15)
6 = Polar (time: 0:30 to 1:30) (60 to 90) North
7 = Europe (time: 0:30 to 1:20)
8 = Pacific Northwest (time: 0:30 to 1:35)
9 = U.S. Pacific Islands (time: 0:30 to 1:25)
10 = Country, State, Province, or Box (all Plate Carree)
Country India
Countries (e.g., Country New Zealand)
States (e.g., State New York)
Canada provinces/territories (e.g., Canada Manitoba)
Box, N. Lat, S. Lat, W. Lon, E. Lon (Example: Box,45,25,-120,-50)

Select Map Type (1-9): 3

1 = Ranks (since 1940)
2 = Departure From Normal (not clouds/wind)
3 = Below, Near, Above Normal (slower)
4 = Target Year Values (not wind)
5 = Normal Values (not wind)
6 = 50 or 75-Year trend (8-10 mins for new run)
7 = 50-Year ENSO Season Correlation (6-10 mins for new run)
8 = SPI (precip auto selected; 8-mins for new run)
9 = Composite ENSO or List of Years (6-mins for new run)

Ranks / trend start year 1940

Note: For periods that wrap around New Year, the start year should by the year at the start of the period. For 1974-75 to 2023-24, (50 years), enter 1974 here (end year should be most current year).

Choose Map Theme (1-8): 1

Available themes: 1 = t2m, 2 = precip, 3 = snow, 4 = sst , 5 = dewpt, 6 = clouds, 7 = wind, 8 = seaice

Map Elements (Check top row for most N. American maps)
Lower 48 States U.S. Counties Canada Provinces
Major Rivers U.S. Interstates Gridlines
NWS WFOs NPS Units Climate Divs
Major World Cities World Roads (adds 1:00)

Last month to start evaluation (e.g., 2 for Feb): 12

Number of months (up to 12) to evaluate (e.g., 3 for Dec-Feb): 12

Year of last month for assessment: 2023

Note 1: Do not select a date in the future!
Note 2: Make sure that your period is not 1939-40. There is no 1939 data.
Note 3: Even when generating normals, make sure not to pick a date in the future.

Values or Departure strip (1=Values, 2=Departure): 1
Show Values or Departure strip (1=Yes, 2=No): 1

Begin Climo 1991 **End** Climo 2020

Central Longitude (Arctic Only) 0
(Used for Map Type options 2 and 3 above)

ENSO Section Only ONI Min -5.0 ONI Max 5.0 [Use to select from a range of average ONI val; or enter list of years manually below.]

OR List of years
Map Subtitle (used when a list of years is entered) 20 chars or less
Above/Below (1=Above/2=Below): 1 100.0 From Climo. Use Detrended Climatology (ONI or list of years)

[Note 1: Only Used if Map Type is 9. Takes 6 mins for new query. Min of 4+ years and separated by commas has priority. For DJF use end year.]
[Note 2: For the count of years above the trendline, units are % avg for snow and precip and clouds. Specify units below for temp, dew pt, and wind.

Units -> Metric or Imperial (1 = Metric, 2 = Imperial): 1

Temp/Wind Departure/Temp Trend Interval 1.0 (Makes 11 categories of Map Interval size.)

Dark Mode :

Data obtained from ECMWF Copernicus CDS. Analysis may not be accurate. **Use at your own risk!**

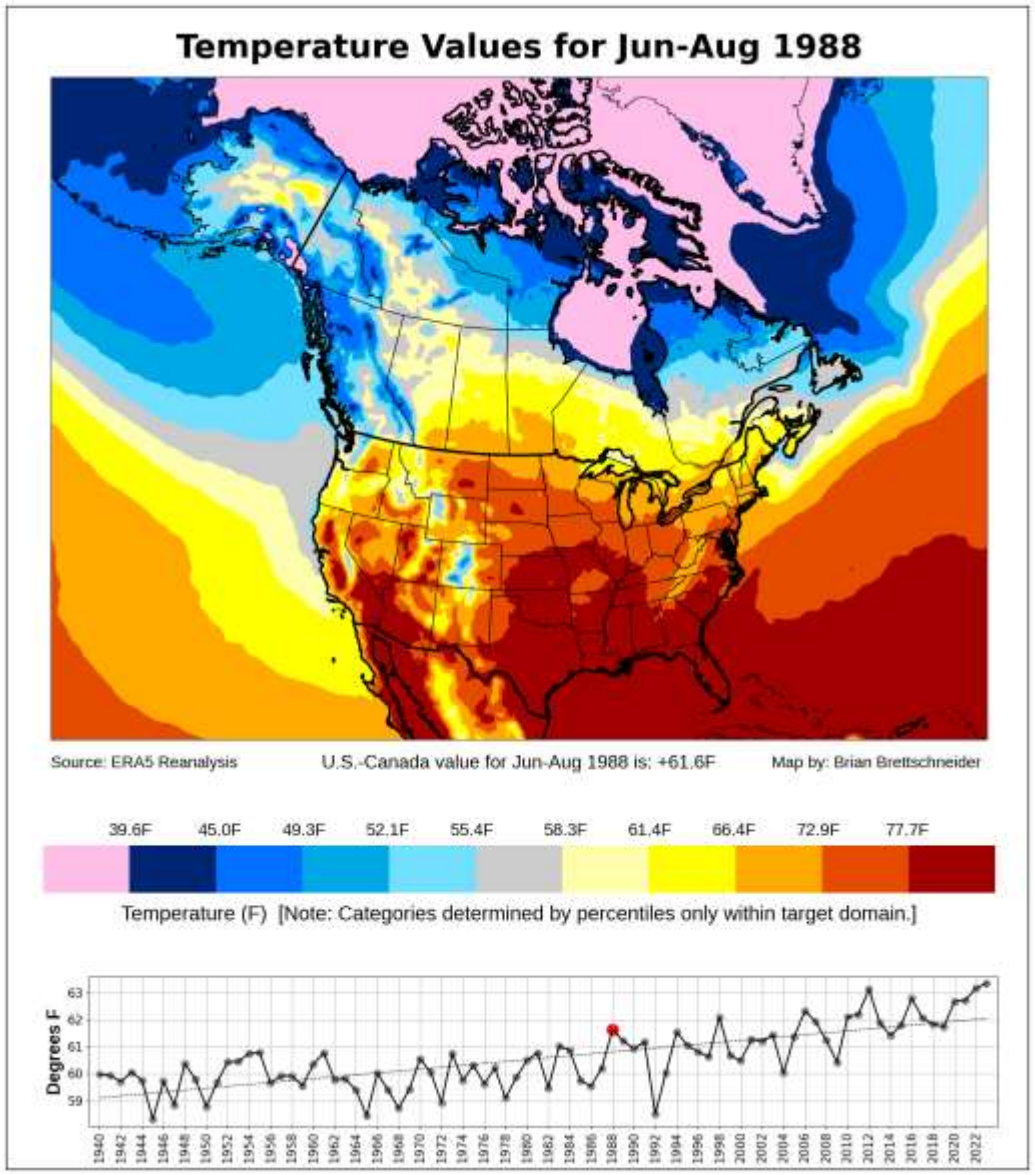
Generate (to reset form, select map area 0 and press button)

Target Year Values

Note: the legend categories for target year values and normal values are automatically selected based on the range of values in the target geography.

Contiguous U.S. Jun-Aug 1988 Temperature Values

Units are °F and map categories automatically chosen based on percentiles
Legend values are scaled based in count of cells in full U.S-Canada land range
States and Canadian provinces added as map elements.



Select Map Area (1-10): 2

1 = Global (time: 0:30 to 1:20)
2 = U.S./Canada (time: 0:30 to 1:40)
3 = Contiguous U.S. (time: 0:30 to 1:50)
4 = Alaska (time: 0:30 to 1:30) ☐ Indigenous names
5 = Alaska and NW Canada (time: 0:30 to 1:15)
6 = Polar (time: 0:30 to 1:30) (60 to 90) North ☑
7 = Europe (time: 0:30 to 1:20)
8 = Pacific Northwest (time: 0:30 to 1:35)
9 = U.S. Pacific Islands (time: 0:30 to 1:25)
10 = Country, State, Province, or Box (all Plate Carree)
Country India
Countries (e.g., Country New Zealand)
States (e.g., State New York)
Canada provinces/territories (e.g., Canada Manitoba)
Box, N. Lat, S. Lat, W. Lon, E. Lon (Example: Box,45,25,-120,-50)

Select Map Type (1-9): 4

1 = Ranks (since 1940)
2 = Departure From Normal (not clouds/wind)
3 = Below, Near, Above Normal (slower)
4 = Target Year Values (not wind)
5 = Normal Values (not wind)
6 = 50 or 75-Year trend (8-10 mins for new run)
7 = 50-Year ENSO Season Correlation (6-10 mins for new run)
8 = SPI (precip auto selected; 8-mins for new run)
9 = Composite ENSO or List of Years (6-mins for new run)

Ranks / trend start year 1940

Note: For periods that wrap around New Year, the start year should by the year at the start of the period. For 1974-75 to 2023-24, (50 years), enter 1974 here (end year should be most current year).

Choose Map Theme (1-8): 1

Available themes: 1 = t2m, 2 = precip, 3 = snow, 4 = sst , 5 = dewpt, 6 = clouds, 7 = wind, 8 = seaice

Map Elements (Check top row for most N. American maps)
Lower 48 States ☑ U.S. Counties ☐ Canada Provinces ☑
Major Rivers ☐ U.S. Interstates ☐ Gridlines ☐
NWS WFOs ☐ NPS Units ☐ Climate Divs ☐
Major World Cities ☐ World Roads (adds 1:00) ☐

Last month to start evaluation (e.g., 2 for Feb): 8

Number of months (up to 12) to evaluate (e.g., 3 for Dec-Feb): 3

Year of last month for assessment: 1988

Note 1: Do not select a date in the future!
Note 2: Make sure that your period is not 1939-40. There is no 1939 data.
Note 3: Even when generating normals, make sure not to pick a date in the future.

Values or Departure strip (1=Values, 2=Departure): 1
Show Values or Departure strip (1=Yes, 2=No): 1

Begin Climo 1991 **End** Climo 2020

Central Longitude (Arctic Only) 0
(Used for Map Type options 2 and 3 above)

ENSO Section Only ONI Min -5.0 ONI Max 5.0 [Use to select from a range of average ONI val; or enter list of years manually below.]

OR List of years
Map Subtitle (used when a list of years is entered) 20 chars or less
Above/Below (1=Above/2=Below): 1 100.0 From Climo. Use Detrended Climatology (ONI or list of years) ☑

[Note 1: Only Used if Map Type is 9. Takes 6 mins for new query. Min of 4+ years and separated by commas has priority. For DJF use end year.]
[Note 2: For the count of years above the trendline, units are % avg for snow and precip and clouds. Specify units below for temp, dew pt, and wind.

Units -> Metric or Imperial (1 = Metric, 2 = Imperial): 2

Temp/Wind Departure/Temp Trend Interval 1.0 (Makes 11 categories of Map Interval size.)

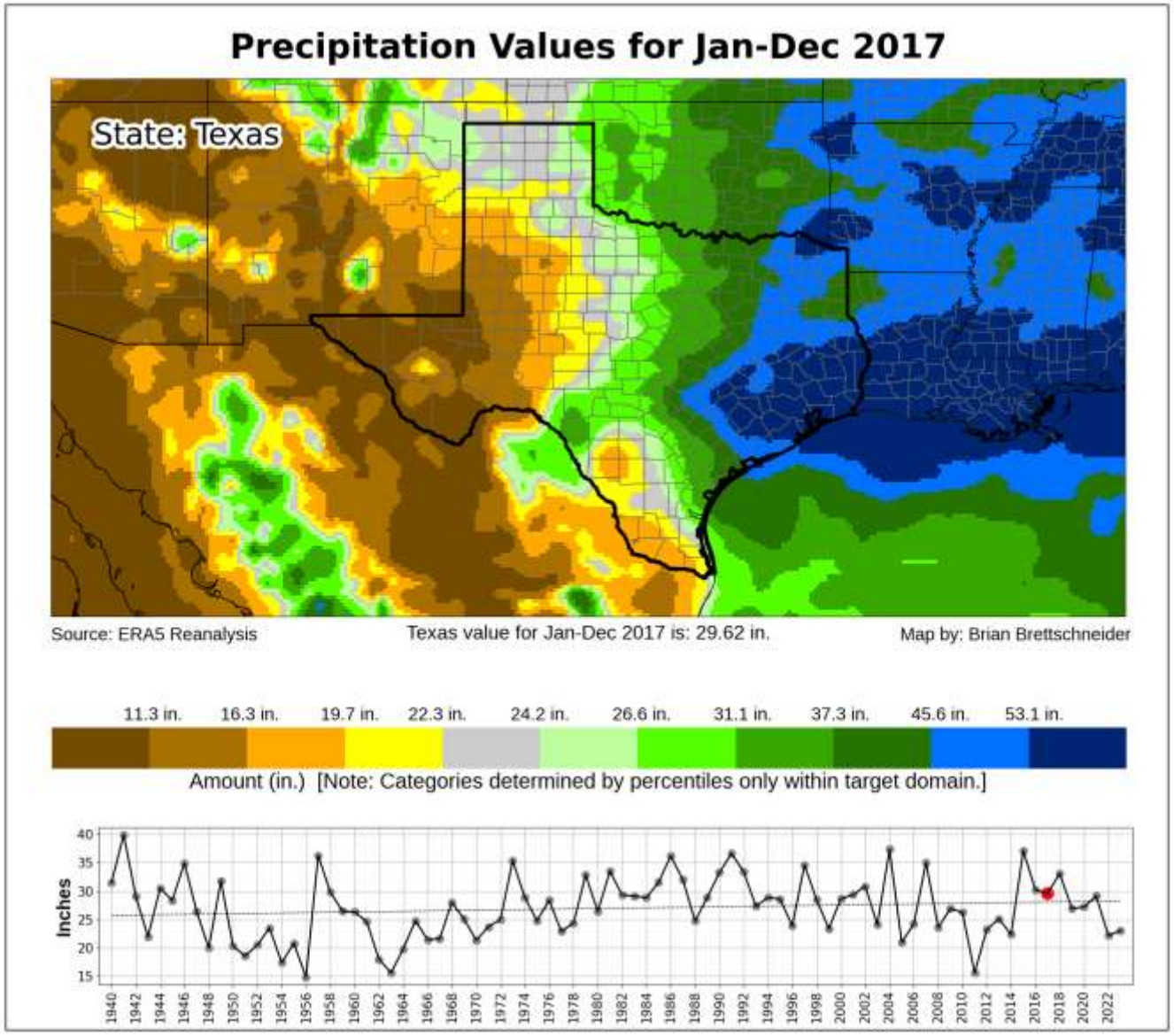
Dark Mode : ☐

Data obtained from ECMWF Copernicus CDS. Analysis may not be accurate. **Use at your own risk!**

Generate (to reset form, select map area 0 and press button)

Texas Jan-Dec 2017 Precipitation Values

Map categories automatically chosen based on Texas percentiles
Imperial values time series strip on bottom
States and counties added as map elements.



Select Map Area (1-10) 10

1 = Global (time: 0:30 to 1:20)
2 = U.S./Canada (time: 0:30 to 1:40)
3 = Contiguous U.S. (time: 0:30 to 1:50)
4 = Alaska (time: 0:30 to 1:30) Indigenous names
5 = Alaska and NW Canada (time: 0:30 to 1:15)
6 = Polar (time: 0:30 to 1:30) (60 to 90) North
7 = Europe (time: 0:30 to 1:20)
8 = Pacific Northwest (time: 0:30 to 1:35)
9 = U.S. Pacific Islands (time: 0:30 to 1:25)
10 = Country, State, Province, or Box (all Plate Carree)

State Texas

Countries (e.g., Country New Zealand)
States (e.g., State New York)
Canada provinces/territories (e.g., Canada Manitoba)
Box, N. Lat, S. Lat, W. Lon, E. Lon (Example: Box,45,25,-120,-50)

Select Map Type (1-9) 4

1 = Ranks (since 1940)
2 = Departure From Normal (not clouds/wind)
3 = Below, Near, Above Normal (slower)
4 = Target Year Values (not wind)
5 = Normal Values (not wind)
6 = 50 or 75-Year trend (8-10 mins for new run)
7 = 50-Year ENSO Season Correlation (6-10 mins for new run)
8 = SPI (precip auto selected; 8-mins for new run)
9 = Composite ENSO or List of Years (6-mins for new run)

Ranks / trend start year 1940

Note: For periods that wrap around New Year, the start year should by the year at the start of the period. For 1974-75 to 2023-24, (50 years), enter 1974 here (end year should be most current year).

Choose Map Theme (1-8): 2

Available themes: 1 = t2m, 2 = precip, 3 = snow, 4 = sst , 5 = dewpt, 6 = clouds, 7 = wind, 8 = seaice

Map Elements (Check top row for most N. American maps)
Lower 48 States U.S. Counties Canada Provinces
Major Rivers U.S. Interstates Gridlines
NWS WFOs NPS Units Climate Divs
Major World Cities World Roads (adds 1:00)

Last month to start evaluation (e.g., 2 for Feb): 12

Number of months (up to 12) to evaluate (e.g., 3 for Dec-Feb): 12

Year of last month for assessment: 2017

Note 1: Do not select a date in the future!
Note 2: Make sure that your period is not 1939-40. There is no 1939 data.
Note 3: Even when generating normals, make sure not to pick a date in the future.

Values or Departure strip (1=Values, 2=Departure): 1
Show Values or Departure strip (1=Yes, 2=No): 1

Begin Climo 1991 **End** Climo 2020

Central Longitude (Arctic Only) 0
(Used for Map Type options 2 and 3 above)

ENSO Section Only ONI Min -5.0 ONI Max 5.0 [Use to select from a range of average ONI val; or enter list of years manually below.]

OR List of years

Map Subtitle (used when a list of years is entered) 20 chars or less
Above/Below (1=Above/2=Below): 1 100.0 From Climo. Use Detrended Climatology (ONI or list of years)

[Note 1: Only Used if Map Type is 9. Takes 6 mins for new query. Min of 4+ years and separated by commas has priority. For DJF use end year.]
[Note 2: For the count of years above the trendline, units are % avg for snow and precip and clouds. Specify units below for temp, dew pt, and wind.

Units -> Metric or Imperial (1 = Metric, 2 = Imperial): 2

Temp/Wind Departure/Temp Trend Interval 1.0 (Makes 11 categories of Map Interval size.)

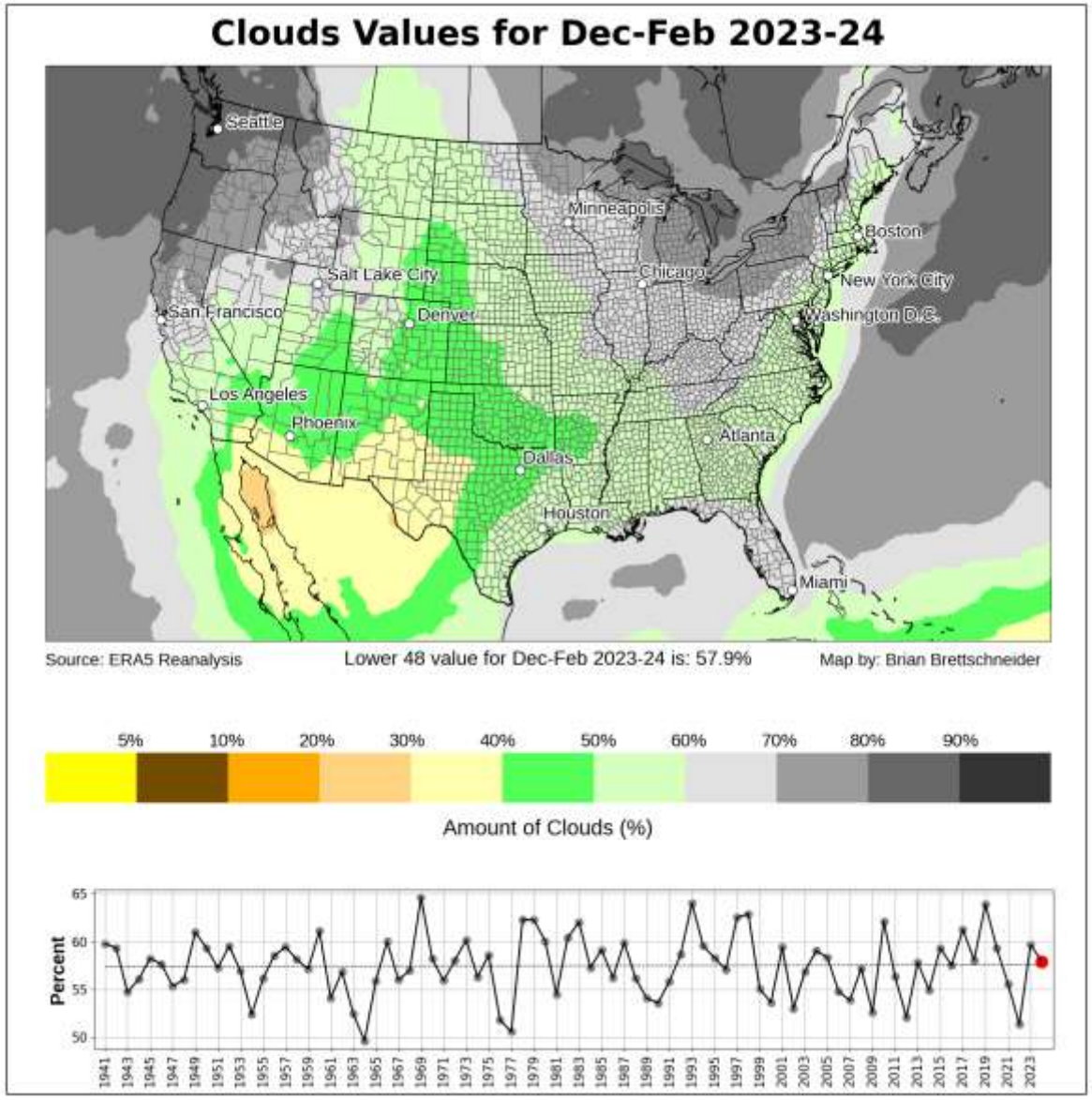
Dark Mode :

Raw data obtained from Copernicus ECMWF Server. Analysis may not be accurate. **Use at your own risk!**

Generate (to reset form, select map area 0 and press button)

Contiguous U.S. Dec 2023-Feb 2024 Clouds Values

Map categories for clouds are automatically in 10% increments
Time series strip is always in percent cloudiness
States, Canadian provinces, and counties added as map elements.



Select Map Area (1-10): 3

1 = Global (time: 0:30 to 1:20)
2 = U.S./Canada (time: 0:30 to 1:40)
3 = Contiguous U.S. (time: 0:30 to 1:50)
4 = Alaska (time: 0:30 to 1:30) ☐ Indigenous names
5 = Alaska and NW Canada (time: 0:30 to 1:15)
6 = Polar (time: 0:30 to 1:30) (60 to 90) North ☑
7 = Europe (time: 0:30 to 1:20)
8 = Pacific Northwest (time: 0:30 to 1:35)
9 = U.S. Pacific Islands (time: 0:30 to 1:25)
10 = Country, State, Province, or Box (all Plate Carree)

Global

Countries (e.g., Country New Zealand)
States (e.g., State New York)
Canada provinces/territories (e.g., Canada Manitoba)
Box, N. Lat, S. Lat, W. Lon, E. Lon (Example: Box,45,25,-120,-50)

Select Map Type (1-9): 4

1 = Ranks (since 1940)
2 = Departure From Normal (not clouds/wind)
3 = Below, Near, Above Normal (slower)
4 = Target Year Values (not wind)
5 = Normal Values (not wind)
6 = 50 or 75-Year trend (8-10 mins for new run)
7 = 50-Year ENSO Season Correlation (6-10 mins for new run)
8 = SPI (precip auto selected; 8-mins for new run)
9 = Composite ENSO or List of Years (6-mins for new run)

Ranks / trend start year 1940

Note: For periods that wrap around New Year, the start year should by the year at the start of the period. For 1974-75 to 2023-24, (50 years), enter 1974 here (end year should be most current year).

Choose Map Theme (1-8): 6

Available themes: 1 = t2m, 2 = precip, 3 = snow, 4 = sst , 5 = dewpt, 6 = clouds, 7 = wind, 8 = seaice

Map Elements (Check top row for most N. American maps)
Lower 48 States ☑ U.S. Counties ☑ Canada Provinces ☑
Major Rivers ☐ U.S. Interstates ☐ Gridlines ☐
NWS WFOs ☐ NPS Units ☐ Climate Divs ☐
Major World Cities ☐ World Roads (adds 1:00) ☐

Last month to start evaluation (e.g., 2 for Feb): 2

Number of months (up to 12) to evaluate (e.g., 3 for Dec-Feb): 3

Year of last month for assessment: 2024

Note 1: Do not select a date in the future!
Note 2: Make sure that your period is not 1939-40. There is no 1939 data.
Note 3: Even when generating normals, make sure not to pick a date in the future.

Values or Departure strip (1=Values, 2=Departure): 1
Show Values or Departure strip (1=Yes, 2=No): 1

Begin Climo 1991 **End** Climo 2020

Central Longitude (Arctic Only) 0
(Used for Map Type options 2 and 3 above)

ENSO Section Only ONI Min -5.0 ONI Max 5.0 [Use to select from a range of average ONI val; or enter list of years manually below.]

OR List of years

Map Subtitle (used when a list of years is entered) 20 chars or less
Above/Below (1=Above/2=Below): 1 100.0 From Climo. Use Detrended Climatology (ONI or list of years) ☑

[Note 1: Only Used if Map Type is 9. Takes 6 mins for new query. Min of 4+ years and separated by commas has priority. For DJF use end year.]
[Note 2: For the count of years above the trendline, units are % avg for snow and precip and clouds. Specify units below for temp, dew pt, and wind.

Units -> Metric or Imperial (1 = Metric, 2 = Imperial): 1

Temp/Wind Departure/Temp Trend Interval 1.0 (Makes 11 categories of Map Interval size.)

Dark Mode : ☐

Raw data obtained from Copernicus ECMWF Server. Analysis may not be accurate. **Use at your own risk!**

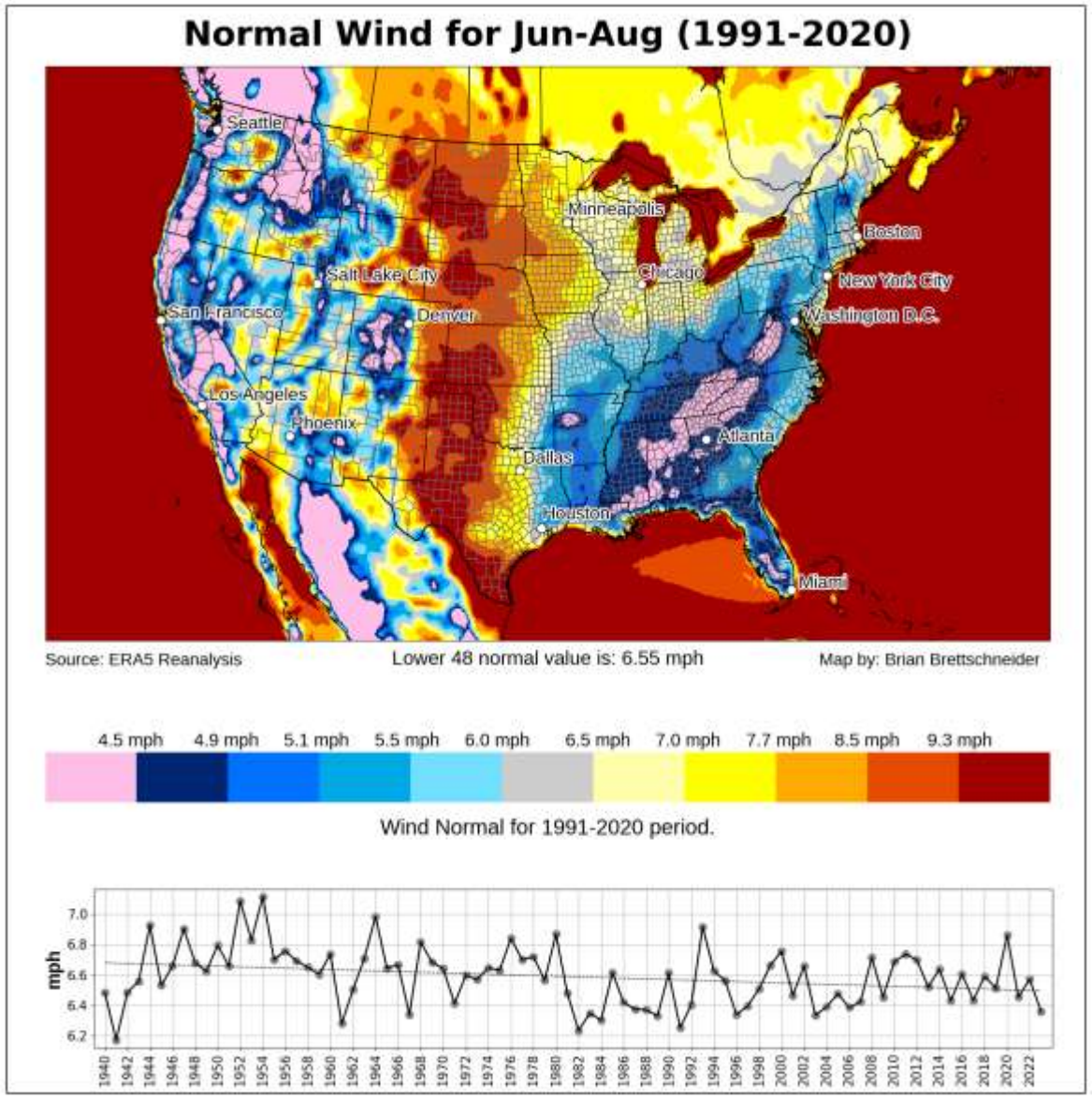
Generate (to reset form, select map area 0 and press button)

Normal Values

Note: the legend categories for target year values and normal values are automatically selected based on the range of values in the target geography. Even though the program uses the range Of normal years, you select the months in the left side of the page. The year that is underneath the month selections cannot be in the Future.

Contiguous U.S. Jun-Aug Wind Normals

Map categories automatically chosen based on Contiguous U.S. percentiles
Since only land was chosen for percentiles, ocean areas aren't used for percentiles
Even though selection year isn't really used, it still cannot be in the future



Select Map Area (1-10): 3

1 = Global (time: 0:30 to 1:20)
2 = U.S./Canada (time: 0:30 to 1:40)
3 = Contiguous U.S. (time: 0:30 to 1:50)
4 = Alaska (time: 0:30 to 1:30) ☐ Indigenous names
5 = Alaska and NW Canada (time: 0:30 to 1:15)
6 = Polar (time: 0:30 to 1:30) (60 to 90) North ☑
7 = Europe (time: 0:30 to 1:20)
8 = Pacific Northwest (time: 0:30 to 1:35)
9 = U.S. Pacific Islands (time: 0:30 to 1:25)
10 = Country, State, Province, or Box (all Plate Carree)
Global
Countries (e.g., Country New Zealand)
States (e.g., State New York)
Canada provinces/territories (e.g., Canada Manitoba)
Box, N. Lat, S. Lat, W. Lon, E. Lon (Example: Box,45,25,-120,-50)

Select Map Type (1-9): 5

1 = Ranks (since 1940)
2 = Departure From Normal (not clouds/wind)
3 = Below, Near, Above Normal (slower)
4 = Target Year Values (not wind)
5 = Normal Values (not wind)
6 = 50 or 75-Year trend (8-10 mins for new run)
7 = 50-Year ENSO Season Correlation (6-10 mins for new run)
8 = SPI (precip auto selected; 8-mins for new run)
9 = Composite ENSO or List of Years (6-mins for new run)

Ranks / trend start year 1940

Note: For periods that wrap around New Year, the start year should by the year at the start of the period. For 1974-75 to 2023-24, (50 years), enter 1974 here (end year should be most current year).

Choose Map Theme (1-8): 7

Available themes: 1 = t2m, 2 = precip, 3 = snow, 4 = sst , 5 = dewpt, 6 = clouds, 7 = wind, 8 = seaice

Map Elements (Check top row for most N. American maps)
Lower 48 States ☑ U.S. Counties ☑ Canada Provinces ☑
Major Rivers ☐ U.S. Interstates ☐ Gridlines ☐
NWS WFOs ☐ NPS Units ☐ Climate Divs ☐
Major World Cities ☐ World Roads (adds 1:00) ☐

Last month to start evaluation (e.g., 2 for Feb): 8

Number of months (up to 12) to evaluate (e.g., 3 for Dec-Feb): 3

Year of last month for assessment: 2023

Note 1: Do not select a date in the future!
Note 2: Make sure that your period is not 1939-40. There is no 1939 data.
Note 3: Even when generating normals, make sure not to pick a date in the future.

Values or Departure strip (1=Values, 2=Departure): 1
Show Values or Departure strip (1=Yes, 2=No): 1

Begin Climo 1991 **End** Climo 2020

Central Longitude (Arctic Only) 0
(Used for Map Type options 2 and 3 above)

ENSO Section Only ONI Min -5.0 ONI Max 5.0 [Use to select from a range of average ONI val; or enter list of years manually below.]

OR List of years
Map Subtitle (used when a list of years is entered) 20 chars or less
Above/Below (1=Above/2=Below): 1 100.0 From Climo. Use Detrended Climatology (ONI or list of years) ☑

[Note 1: Only Used if Map Type is 9. Takes 6 mins for new query. Min of 4+ years and separated by commas has priority. For DJF use end year.]
[Note 2: For the count of years above the trendline, units are % avg for snow and precip and clouds. Specify units below for temp, dew pt, and wind.

Units -> Metric or Imperial (1 = Metric, 2 = Imperial): 2

Temp/Wind Departure/Temp Trend Interval 1.0 (Makes 11 categories of Map Interval size.)

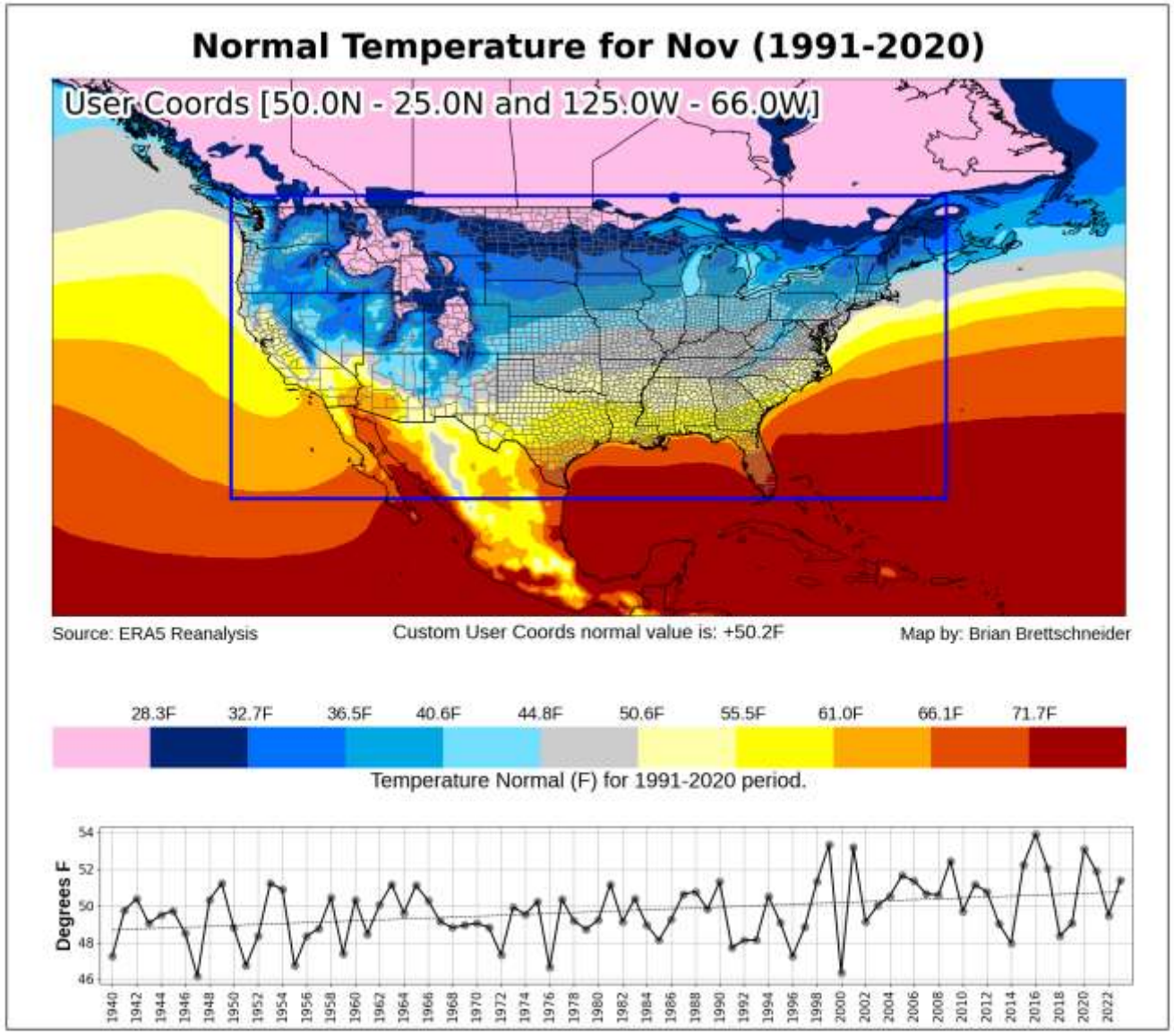
Dark Mode : ☐

Raw data obtained from Copernicus ECMWF Server. Analysis may not be accurate. **Use at your own risk!**

Generate (to reset form, select map area 0 and press button)

User-Defined Box 1991-2020 Nov Temperature Normals

Map categories automatically chosen based user-defined box percentiles
Since only land and water were chosen, percentiles reflect combined area
Remember that user-defined boxes always map in Platte Carree (lat/lon)



Select Map Area (1-10): 10

1 = Global (time: 0:30 to 1:20)
2 = U.S./Canada (time: 0:30 to 1:40)
3 = Contiguous U.S. (time: 0:30 to 1:50)
4 = Alaska (time: 0:30 to 1:30) ☐ Indigenous names
5 = Alaska and NW Canada (time: 0:30 to 1:15)
6 = Polar (time: 0:30 to 1:30) (60 to 90) North ☑
7 = Europe (time: 0:30 to 1:20)
8 = Pacific Northwest (time: 0:30 to 1:35)
9 = U.S. Pacific Islands (time: 0:30 to 1:25)
10 = Country, State, Province, or Box (all Plate Carree)
Box,50,25,-125,-66
Countries (e.g., Country New Zealand)
States (e.g., State New York)
Canada provinces/territories (e.g., Canada Manitoba)
Box, N. Lat, S. Lat, W. Lon, E. Lon (Example: Box,45,25,-120,-50)

Select Map Type (1-9): 5

1 = Ranks (since 1940)
2 = Departure From Normal (not clouds/wind)
3 = Below, Near, Above Normal (slower)
4 = Target Year Values (not wind)
5 = Normal Values (not wind)
6 = 50 or 75-Year trend (8-10 mins for new run)
7 = 50-Year ENSO Season Correlation (6-10 mins for new run)
8 = SPI (precip auto selected; 8-mins for new run)
9 = Composite ENSO or List of Years (6-mins for new run)

Ranks / trend start year 1940

Note: For periods that wrap around New Year,
the start year should by the year at the start
of the period. For 1974-75 to 2023-24, (50 years),
enter 1974 here (end year should be most current year).

Choose Map Theme (1-8): 1

Available themes: 1 = t2m, 2 = precip, 3 = snow, 4 = sst ,
5 = dewpt, 6 = clouds, 7 = wind, 8 = seaice

Map Elements (Check top row for most N. American maps)
Lower 48 States ☑ U.S. Counties ☑ Canada Provinces ☑
Major Rivers ☐ U.S. Interstates ☐ Gridlines ☐
NWS WFOs ☐ NPS Units ☐ Climate Divs ☐
Major World Cities ☐ World Roads (adds 1:00) ☐

Last month to start evaluation (e.g., 2 for Feb): 11

Number of months (up to 12) to evaluate (e.g., 3 for Dec-Feb): 1

Year of last month for assessment: 2023

Note 1: Do not select a date in the future!
Note 2: Make sure that your period is not 1939-40. There is no 1939 data.
Note 3: Even when generating normals, make sure not to pick a date in the future.

Values or Departure strip (1=Values, 2=Departure): 1
Show Values or Departure strip (1=Yes, 2=No): 1

Begin Climo 1991 **End** Climo 2020

Central Longitude (Arctic Only) 0
(Used for Map Type options 2 and 3 above)

ENSO Section Only ONI Min -5.0 ONI Max 5.0 [Use to select from a range of average ONI val; or enter list of years manually below.]

OR List of years
Map Subtitle (used when a list of years is entered) 20 chars or less
Above/Below (1=Above/2=Below): 1 100.0 From Climo. Use Detrended Climatology (ONI or list of years) ☑

[Note 1: Only Used if Map Type is 9. Takes 6 mins for new query. Min of 4+ years and separated by commas has priority. For DJF use end year.]
[Note 2: For the count of years above the trendline, units are % avg for snow and precip and clouds. Specify units below for temp, dew pt, and wind.

Units -> Metric or Imperial (1 = Metric, 2 = Imperial): 2

Temp/Wind Departure/Temp Trend Interval 1.0 (Makes 11 categories of Map Interval size.)

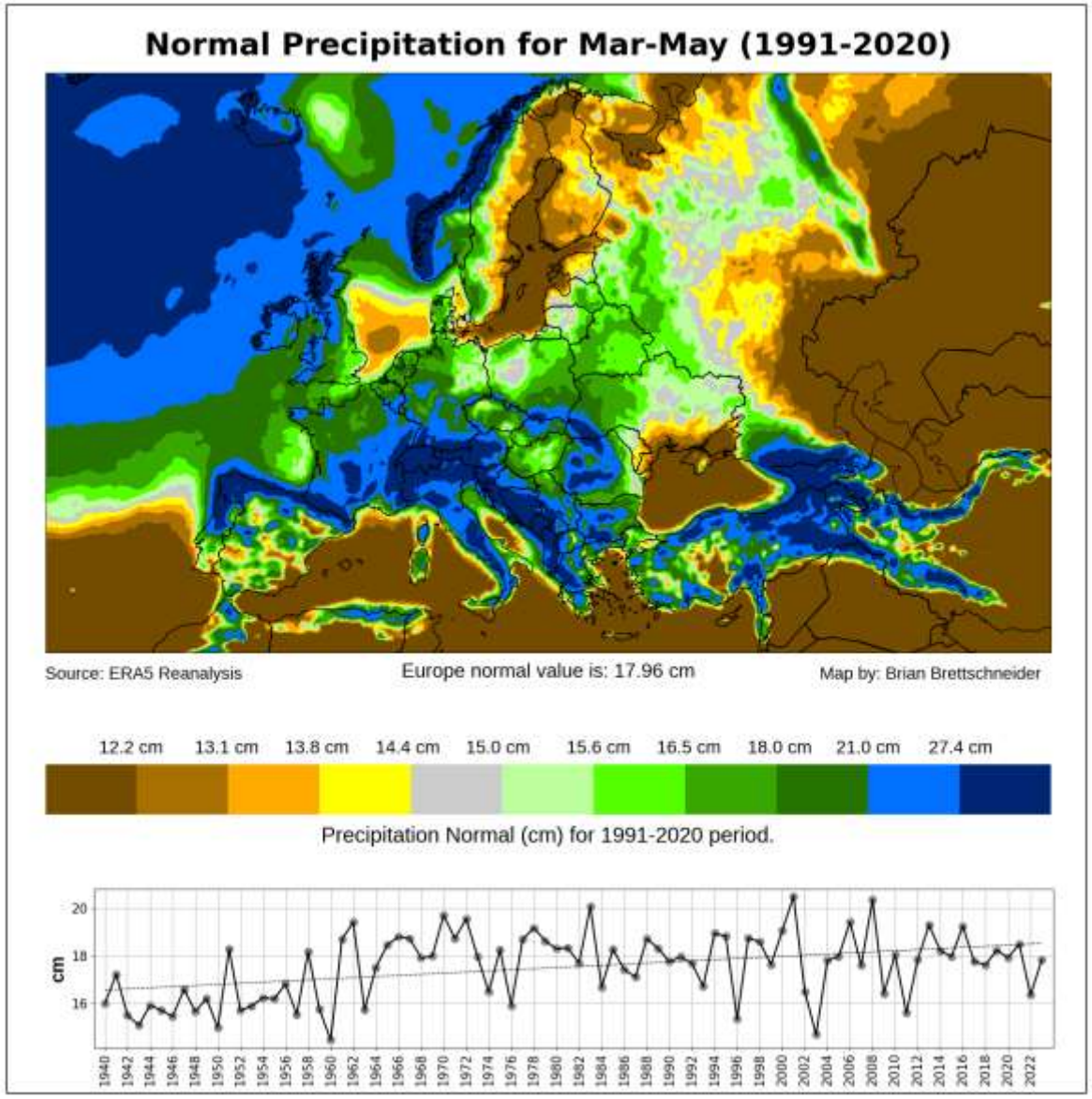
Dark Mode : ☐

Raw data obtained from Copernicus ECMWF Server. Analysis may not be accurate. **Use at your own risk!**

Generate (to reset form, select map area 0 and press button)

Europe 1991-2020 Mar-May Precipitation Normals

Map categories automatically chosen based on Europe land percentiles
Map units were chosen as metric, so the categories are in metric
The time series is also in metric.



Select Map Area (1-10): 7

1 = Global (time: 0:30 to 1:20)
2 = U.S./Canada (time: 0:30 to 1:40)
3 = Contiguous U.S. (time: 0:30 to 1:50)
4 = Alaska (time: 0:30 to 1:30) ☐ Indigenous names
5 = Alaska and NW Canada (time: 0:30 to 1:15)
6 = Polar (time: 0:30 to 1:30) (60 to 90) North ☑
7 = Europe (time: 0:30 to 1:20)
8 = Pacific Northwest (time: 0:30 to 1:35)
9 = U.S. Pacific Islands (time: 0:30 to 1:25)
10 = Country, State, Province, or Box (all Plate Carree)
Global
Countries (e.g., Country New Zealand)
States (e.g., State New York)
Canada provinces/territories (e.g., Canada Manitoba)
Box, N. Lat, S. Lat, W. Lon, E. Lon (Example: Box,45,25,-120,-50)

Select Map Type (1-9): 5

1 = Ranks (since 1940)
2 = Departure From Normal (not clouds/wind)
3 = Below, Near, Above Normal (slower)
4 = Target Year Values (not wind)
5 = Normal Values (not wind)
6 = 50 or 75-Year trend (8-10 mins for new run)
7 = 50-Year ENSO Season Correlation (6-10 mins for new run)
8 = SPI (precip auto selected; 8-mins for new run)
9 = Composite ENSO or List of Years (6-mins for new run)

Ranks / trend start year 1940

Note: For periods that wrap around New Year,
the start year should by the year at the start
of the period. For 1974-75 to 2023-24, (50 years),
enter 1974 here (end year should be most current year).

Choose Map Theme (1-8): 2

Available themes: 1 = t2m, 2 = precip, 3 = snow, 4 = sst ,
5 = dewpt, 6 = clouds, 7 = wind, 8 = seaice

Map Elements (Check top row for most N. American maps)
Lower 48 States ☐ U.S. Counties ☐ Canada Provinces ☐
Major Rivers ☐ U.S. Interstates ☐ Gridlines ☐
NWS WFOs ☐ NPS Units ☐ Climate Divs ☐
Major World Cities ☐ World Roads (adds 1:00) ☐

Last month to start evaluation (e.g., 2 for Feb): 5

Number of months (up to 12) to evaluate (e.g., 3 for Dec-Feb): 3

Year of last month for assessment: 2023

Note 1: Do not select a date in the future!
Note 2: Make sure that your period is not 1939-40. There is no 1939 data.
Note 3: Even when generating normals, make sure not to pick a date in the future.

Values or Departure strip (1=Values, 2=Departure): 1
Show Values or Departure strip (1=Yes, 2=No): 1

Begin Climo 1991 **End** Climo 2020

Central Longitude (Arctic Only) 0
(Used for Map Type options 2 and 3 above)

ENSO Section Only ONI Min -5.0 ONI Max 5.0 [Use to select from a range of average ONI val; or enter list of years manually below.]

OR List of years
Map Subtitle (used when a list of years is entered) 20 chars or less
Above/Below (1=Above/2=Below): 1 100.0 From Climo. Use Detrended Climatology (ONI or list of years) ☑

[Note 1: Only Used if Map Type is 9. Takes 6 mins for new query. Min of 4+ years and separated by commas has priority. For DJF use end year.]
[Note 2: For the count of years above the trendline, units are % avg for snow and precip and clouds. Specify units below for temp, dew pt, and wind.

Units -> Metric or Imperial (1 = Metric, 2 = Imperial): 1

Temp/Wind Departure/Temp Trend Interval 1.0 (Makes 11 categories of Map Interval size.)

Dark Mode : ☐

Raw data obtained from Copernicus ECMWF Server. Analysis may not be accurate. **Use at your own risk!**

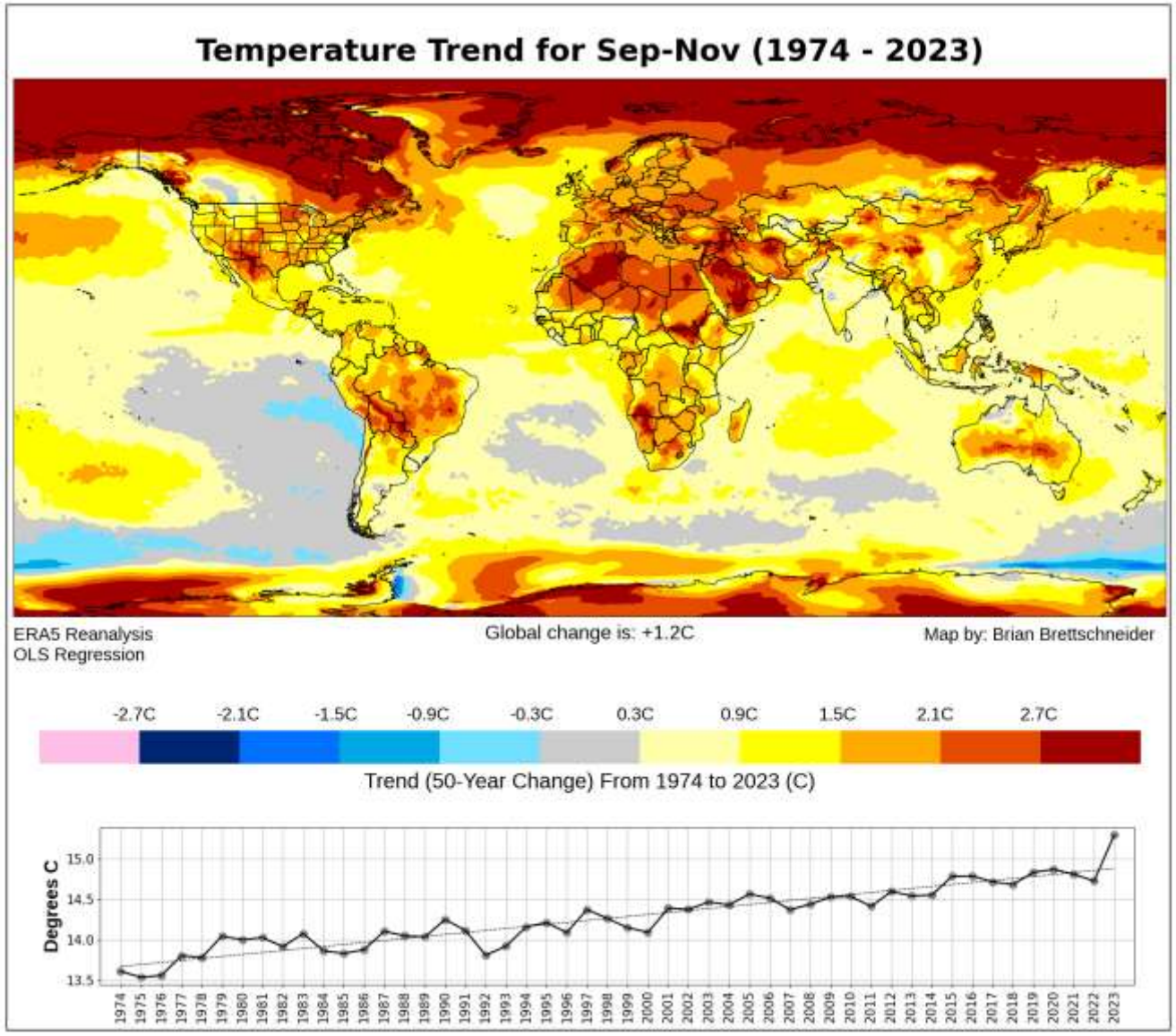
Generate (to reset form, select map area 0 and press button)

Trends

Note: if a specific trend has not been run before, it can take 6-10 minutes to run. Once a trend has been run, a NetCDF is saved and is used in subsequent runs and will take < 1 minute. If, for example, a Sep-Nov 1974-2023 trend is run for Europe, the NetCDF is saved for the entire globe. If you run a Sep-Nov 1974-2023 trend afterward for Alaska, it will already have the necessary NetCDF and will run quickly. Remember that when crossing the year (e.g., Dec-Feb), the target year uses the Feb year but the start year will use the Dec year. A Dec-Feb 1974-75 to 2023-24 will use 2024 as the analysis year but 1974 as the start year. It is still a 50-year run.

Global Sep-Nov 1974-2023 Temperature Trend

Be careful when choosing the time period - especially the start year
Map units were chosen as metric and the interval manually chosen as 0.6C
No other map elements were added



Select Map Area (1-10): 1

1 = Global (time: 0:30 to 1:20)
2 = U.S./Canada (time: 0:30 to 1:40)
3 = Contiguous U.S. (time: 0:30 to 1:50)
4 = Alaska (time: 0:30 to 1:30) ☐ Indigenous names
5 = Alaska and NW Canada (time: 0:30 to 1:15)
6 = Polar (time: 0:30 to 1:30) (60 to 90) North ☑
7 = Europe (time: 0:30 to 1:20)
8 = Pacific Northwest (time: 0:30 to 1:35)
9 = U.S. Pacific Islands (time: 0:30 to 1:25)
10 = Country, State, Province, or Box (all Plate Carree)
Global
Countries (e.g., Country New Zealand)
States (e.g., State New York)
Canada provinces/territories (e.g., Canada Manitoba)
Box, N. Lat, S. Lat, W. Lon, E. Lon (Example: Box,45,25,-120,-50)

Select Map Type (1-9): 6

1 = Ranks (since 1940)
2 = Departure From Normal (not clouds/wind)
3 = Below, Near, Above Normal (slower)
4 = Target Year Values (not wind)
5 = Normal Values (not wind)
6 = 50 or 75-Year trend (8-10 mins for new run)
7 = 50-Year ENSO Season Correlation (6-10 mins for new run)
8 = SPI (precip auto selected; 8-mins for new run)
9 = Composite ENSO or List of Years (6-mins for new run)

Ranks / trend start year 1974

Note: For periods that wrap around New Year, the start year should by the year at the start of the period. For 1974-75 to 2023-24, (50 years), enter 1974 here (end year should be most current year).

Choose Map Theme (1-8): 1

Available themes: 1 = t2m, 2 = precip, 3 = snow, 4 = sst , 5 = dewpt, 6 = clouds, 7 = wind, 8 = seaice

Map Elements (Check top row for most N. American maps)
Lower 48 States ☐ U.S. Counties ☐ Canada Provinces ☐
Major Rivers ☐ U.S. Interstates ☐ Gridlines ☐
NWS WFOs ☐ NPS Units ☐ Climate Divs ☐
Major World Cities ☐ World Roads (adds 1:00) ☐

Last month to start evaluation (e.g., 2 for Feb): 11

Number of months (up to 12) to evaluate (e.g., 3 for Dec-Feb): 3

Year of last month for assessment: 2023

Note 1: Do not select a date in the future!
Note 2: Make sure that your period is not 1939-40. There is no 1939 data.
Note 3: Even when generating normals, make sure not to pick a date in the future.

Values or Departure strip (1=Values, 2=Departure): 1
Show Values or Departure strip (1=Yes, 2=No): 1

Begin Climo 1991 **End** Climo 2020

Central Longitude (Arctic Only) 0
(Used for Map Type options 2 and 3 above)

ENSO Section Only ONI Min -5.0 ONI Max 5.0 [Use to select from a range of average ONI val; or enter list of years manually below.]

OR List of years
Map Subtitle (used when a list of years is entered) 20 chars or less
Above/Below (1=Above/2=Below): 1 100.0 From Climo. Use Detrended Climatology (ONI or list of years) ☑

[Note 1: Only Used if Map Type is 9. Takes 6 mins for new query. Min of 4+ years and separated by commas has priority. For DJF use end year.]
[Note 2: For the count of years above the trendline, units are % avg for snow and precip and clouds. Specify units below for temp, dew pt, and wind.

Units -> Metric or Imperial (1 = Metric, 2 = Imperial): 1

Temp/Wind Departure/Temp Trend Interval 0.6 (Makes 11 categories of Map Interval size.)

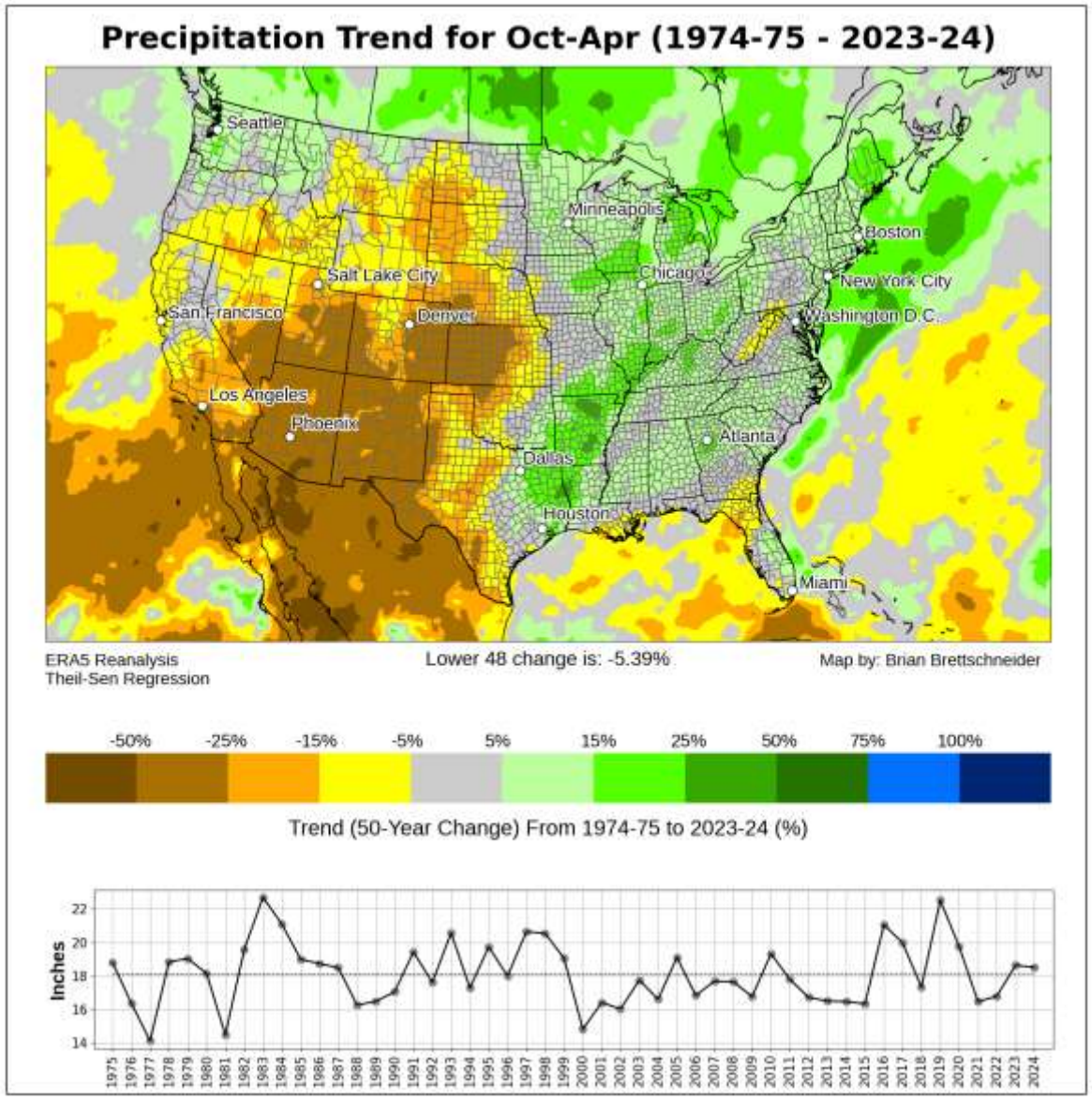
Dark Mode : ☐

Raw data obtained from Copernicus ECMWF Server. Analysis may not be accurate. **Use at your own risk!**

Generate (to reset form, select map area 0 and press button)

U.S. and Canada Oct-April 1974-75 to 2023-24 Precipitation Trend

Be careful when choosing the time period – note that 1974 was chosen as the start year
Map units were automatically chosen as a percent change (same for snowfall)
States, Canada provinces, and counties added



Select Map Area (1-10): 3

1 = Global (time: 0:30 to 1:20)
2 = U.S./Canada (time: 0:30 to 1:40)
3 = Contiguous U.S. (time: 0:30 to 1:50)
4 = Alaska (time: 0:30 to 1:30) ☐ Indigenous names
5 = Alaska and NW Canada (time: 0:30 to 1:15)
6 = Polar (time: 0:30 to 1:30) (60 to 90) North ☑
7 = Europe (time: 0:30 to 1:20)
8 = Pacific Northwest (time: 0:30 to 1:35)
9 = U.S. Pacific Islands (time: 0:30 to 1:25)
10 = Country, State, Province, or Box (all Plate Carree)
Country India
Countries (e.g., Country New Zealand)
States (e.g., State New York)
Canada provinces/territories (e.g., Canada Manitoba)
Box, N. Lat, S. Lat, W. Lon, E. Lon (Example: Box,45,25,-120,-50)

Select Map Type (1-9): 6

1 = Ranks (since 1940)
2 = Departure From Normal (not clouds/wind)
3 = Below, Near, Above Normal (slower)
4 = Target Year Values (not wind)
5 = Normal Values (not wind)
6 = 50 or 75-Year trend (8-10 mins for new run)
7 = 50-Year ENSO Season Correlation (6-10 mins for new run)
8 = SPI (precip auto selected; 8-mins for new run)
9 = Composite ENSO or List of Years (6-mins for new run)

Ranks / trend start year 1974

Note: For periods that wrap around New Year, the start year should by the year at the start of the period. For 1974-75 to 2023-24, (50 years), enter 1974 here (end year should be most current year).

Choose Map Theme (1-8): 2

Available themes: 1 = t2m, 2 = precip, 3 = snow, 4 = sst , 5 = dewpt, 6 = clouds, 7 = wind, 8 = seaice

Map Elements (Check top row for most N. American maps)
Lower 48 States ☑ U.S. Counties ☑ Canada Provinces ☑
Major Rivers ☐ U.S. Interstates ☐ Gridlines ☐
NWS WFOs ☐ NPS Units ☐ Climate Divs ☐
Major World Cities ☐ World Roads (adds 1:00) ☐

Last month to start evaluation (e.g., 2 for Feb): 4

Number of months (up to 12) to evaluate (e.g., 3 for Dec-Feb): 7

Year of last month for assessment: 2024

Note 1: Do not select a date in the future!
Note 2: Make sure that your period is not 1939-40. There is no 1939 data.
Note 3: Even when generating normals, make sure not to pick a date in the future.

Values or Departure strip (1=Values, 2=Departure): 1
Show Values or Departure strip (1=Yes, 2=No): 1

Begin Climo 1991 **End** Climo 2020

Central Longitude (Arctic Only) 0
(Used for Map Type options 2 and 3 above)

ENSO Section Only ONI Min -5.0 ONI Max 5.0 [Use to select from a range of average ONI val; or enter list of years manually below.]

OR List of years
Map Subtitle (used when a list of years is entered) 20 chars or less
Above/Below (1=Above/2=Below): 1 100.0 From Climo. Use Detrended Climatology (ONI or list of years) ☑

[Note 1: Only Used if Map Type is 9. Takes 6 mins for new query. Min of 4+ years and separated by commas has priority. For DJF use end year.]
[Note 2: For the count of years above the trendline, units are % avg for snow and precip and clouds. Specify units below for temp, dew pt, and wind.

Units -> Metric or Imperial (1 = Metric, 2 = Imperial): 2

Temp/Wind Departure/Temp Trend Interval 1.0 (Makes 11 categories of Map Interval size.)

Dark Mode : ☐

Raw data obtained from Copernicus ECMWF Server. Analysis may not be accurate. **Use at your own risk!**

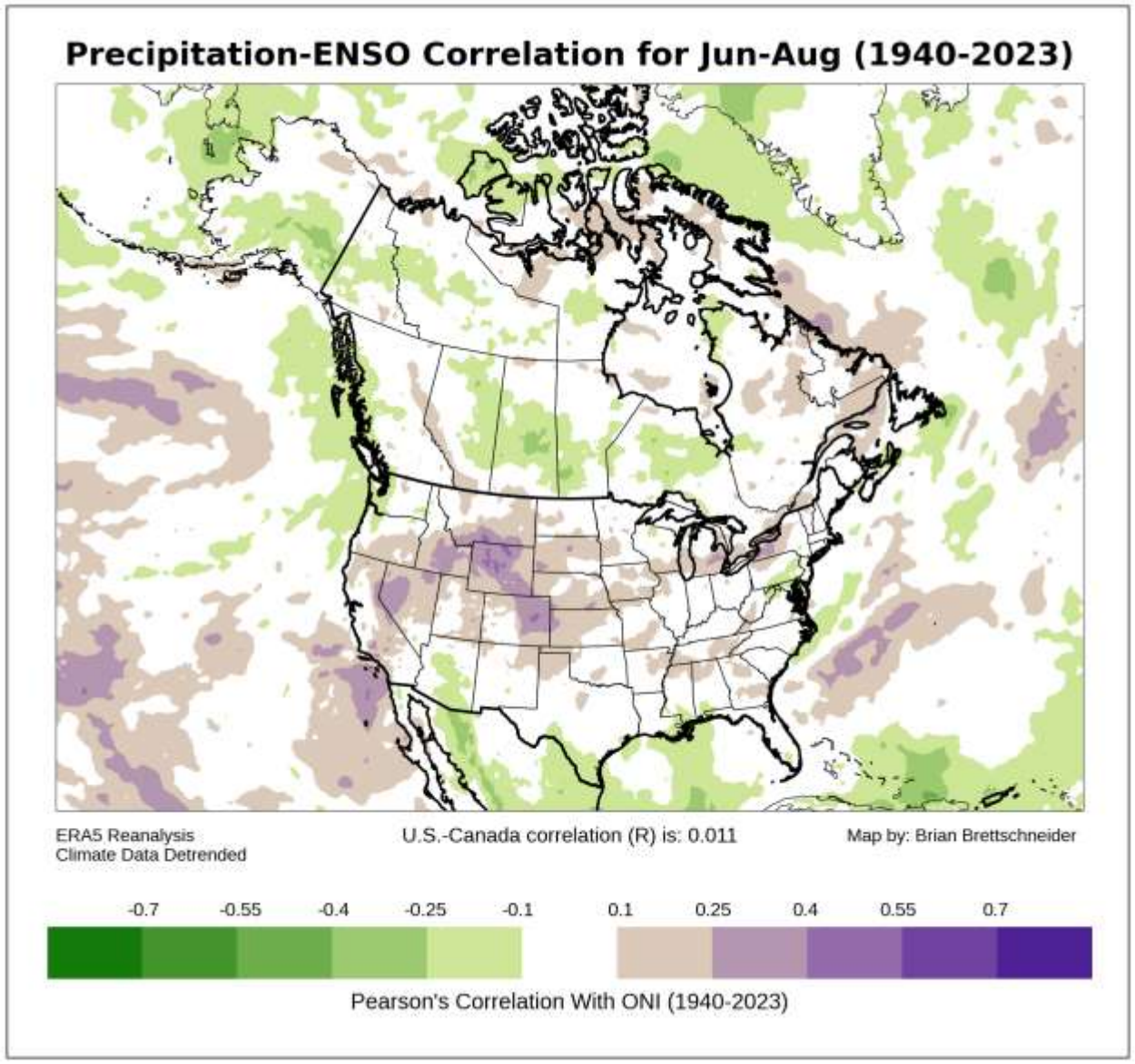
Generate (to reset form, select map area 0 and press button)

ENSO Correlation

Note: This computed a Pearson's-R value for each grid cell against the monthly (or combined multiple months) Nino 3.4 value computed from ERSST v5. A Best Practice is to not run this for periods greater than 3 months; e.g., do not do a Jan-Dec correlation. By default, no time series strip is generated. The map colors and categories are automatically chosen and are the same for all variables.

U.S. and Canada Jun-Aug Precipitation ENSO Correlation

Shared of green are inverse correlations and purples are positive correlations
In this example, Jun-Aug La Nina (negative SSTs) are negatively correlated in Alaska. This means negative SSTs mean positive precipitation (above normal)



Select Map Area (1-10): 2

1 = Global (time: 0:30 to 1:20)
2 = U.S./Canada (time: 0:30 to 1:40)
3 = Contiguous U.S. (time: 0:30 to 1:50)
4 = Alaska (time: 0:30 to 1:30) ☐ Indigenous names
5 = Alaska and NW Canada (time: 0:30 to 1:15)
6 = Polar (time: 0:30 to 1:30) (60 to 90) North ☑
7 = Europe (time: 0:30 to 1:20)
8 = Pacific Northwest (time: 0:30 to 1:35)
9 = U.S. Pacific Islands (time: 0:30 to 1:25)
10 = Country, State, Province, or Box (all Plate Carree)
Global
Countries (e.g., Country New Zealand)
States (e.g., State New York)
Canada provinces/territories (e.g., Canada Manitoba)
Box, N. Lat, S. Lat, W. Lon, E. Lon (Example: Box,45,25,-120,-50)

Select Map Type (1-9): 7

1 = Ranks (since 1940)
2 = Departure From Normal (not clouds/wind)
3 = Below, Near, Above Normal (slower)
4 = Target Year Values (not wind)
5 = Normal Values (not wind)
6 = 50 or 75-Year trend (8-10 mins for new run)
7 = 50-Year ENSO Season Correlation (6-10 mins for new run)
8 = SPI (precip auto selected; 8-mins for new run)
9 = Composite ENSO or List of Years (6-mins for new run)

Ranks / trend start year 1940

Note: For periods that wrap around New Year, the start year should by the year at the start of the period. For 1974-75 to 2023-24, (50 years), enter 1974 here (end year should be most current year).

Choose Map Theme (1-8) 2

Available themes: 1 = t2m, 2 = precip, 3 = snow, 4 = sst , 5 = dewpt, 6 = clouds, 7 = wind, 8 = seaice

Map Elements (Check top row for most N. American maps)
Lower 48 States ☑ U.S. Counties ☐ Canada Provinces ☑
Major Rivers ☐ U.S. Interstates ☐ Gridlines ☐
NWS WFOs ☐ NPS Units ☐ Climate Divs ☐
Major World Cities ☐ World Roads (adds 1:00) ☐

Last month to start evaluation (e.g., 2 for Feb): 8

Number of months (up to 12) to evaluate (e.g., 3 for Dec-Feb): 3

Year of last month for assessment: 2023

Note 1: Do not select a date in the future!
Note 2: Make sure that your period is not 1939-40. There is no 1939 data.
Note 3: Even when generating normals, make sure not to pick a date in the future.

Values or Departure strip (1=Values, 2=Departure): 1
Show Values or Departure strip (1=Yes, 2=No): 2

Begin Climo 1991 **End** Climo 2020

Central Longitude (Arctic Only) 0
(Used for Map Type options 2 and 3 above)

ENSO Section Only ONI Min -5.0 ONI Max 5.0 [Use to select from a range of average ONI val; or enter list of years manually below.]

OR List of years
Map Subtitle (used when a list of years is entered) 20 chars or less
Above/Below (1=Above/2=Below): 1 100.0 From Climo. Use Detrended Climatology (ONI or list of years) ☑

[Note 1: Only Used if Map Type is 9. Takes 6 mins for new query. Min of 4+ years and separated by commas has priority. For DJF use end year.]
[Note 2: For the count of years above the trendline, units are % avg for snow and precip and clouds. Specify units below for temp, dew pt, and wind.

Units -> Metric or Imperial (1 = Metric, 2 = Imperial): 1

Temp/Wind Departure/Temp Trend Interval 1.0 (Makes 11 categories of Map Interval size.)

Dark Mode : ☐

Raw data obtained from Copernicus ECMWF Server. Analysis may not be accurate. **Use at your own risk!**

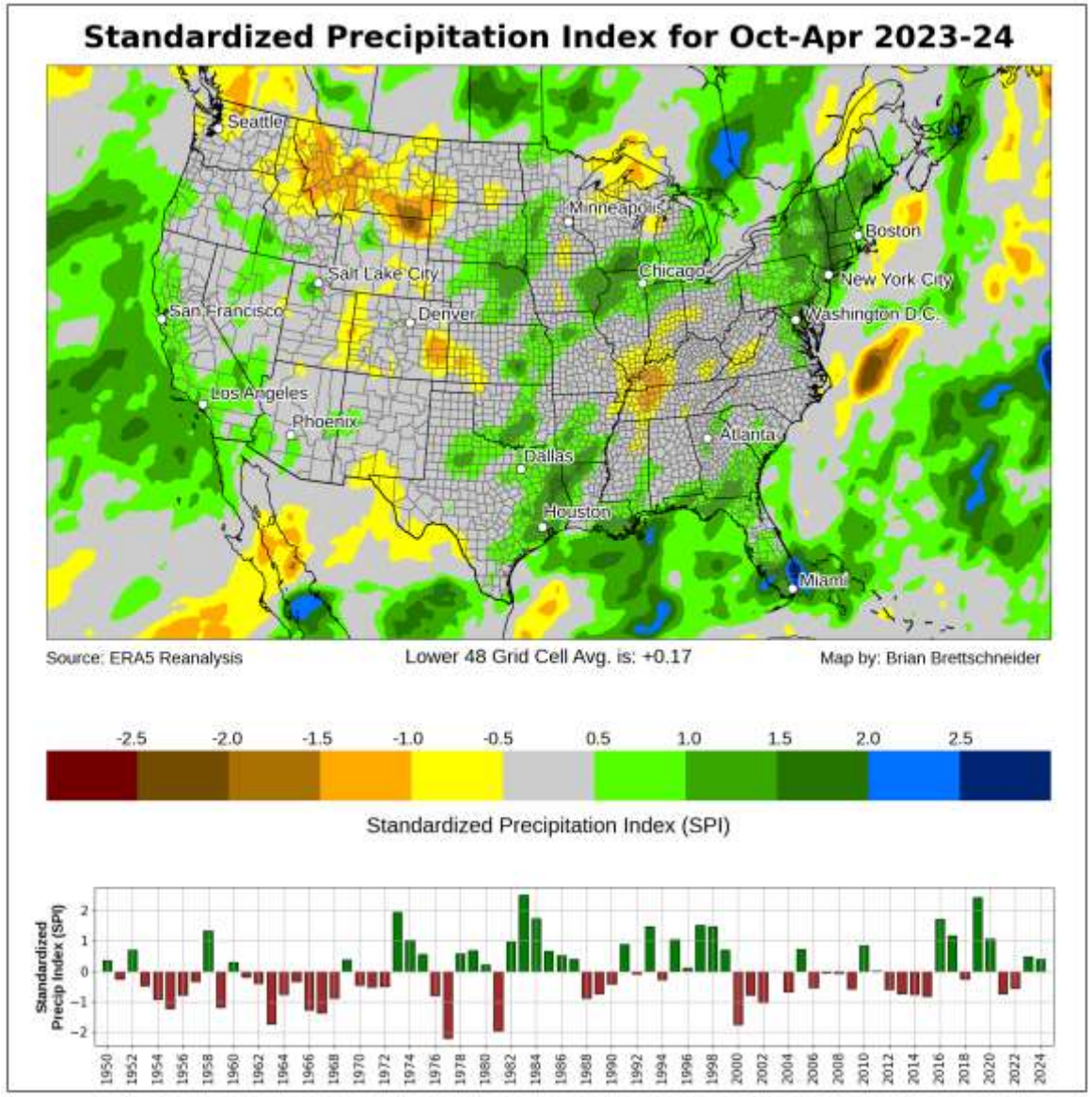
Generate (to reset form, select map area 0 and press button)

Standardized Precipitation Index (SPI)

Note: SPI is a statistic computed from precipitation. A gamma distribution is fit to the precipitation values that compose the time series. By convention, this begins in 1950. If the user selects Jun-Aug 2024, all Jun-Aug precipitation values for each grid cell are fit to a gamma distribution and effectively assigned a Z-score. New runs are very slow (6-10 minutes). The time series at the bottom is always a bar chart. Importantly, the time series sums all the precipitation for the entire geography for each year and computes a time series from that sum. This essentially gives wetter areas more weight. Right below the map is a grid cell average. This is different than the value in the time series.

Contiguous U.S. Oct-Apr 2023-24 SPI

When the Map Type of SPI is selected, the Map Theme and Start Year
are automatically chosen
The time series is a combined average, this is different than the grid cell average



Select Map Area (1-10): 3

1 = Global (time: 0:30 to 1:20)
2 = U.S./Canada (time: 0:30 to 1:40)
3 = Contiguous U.S. (time: 0:30 to 1:50)
4 = Alaska (time: 0:30 to 1:30) ☐ Indigenous names
5 = Alaska and NW Canada (time: 0:30 to 1:15)
6 = Polar (time: 0:30 to 1:30) (60 to 90) North ☑
7 = Europe (time: 0:30 to 1:20)
8 = Pacific Northwest (time: 0:30 to 1:35)
9 = U.S. Pacific Islands (time: 0:30 to 1:25)
10 = Country, State, Province, or Box (all Plate Carree)
Country India
Countries (e.g., Country New Zealand)
States (e.g., State New York)
Canada provinces/territories (e.g., Canada Manitoba)
Box, N. Lat, S. Lat, W. Lon, E. Lon (Example: Box,45,25,-120,-50)

Select Map Type (1-9): 8

1 = Ranks (since 1940)
2 = Departure From Normal (not clouds/wind)
3 = Below, Near, Above Normal (slower)
4 = Target Year Values (not wind)
5 = Normal Values (not wind)
6 = 50 or 75-Year trend (8-10 mins for new run)
7 = 50-Year ENSO Season Correlation (6-10 mins for new run)
8 = SPI (precip auto selected; 8-mins for new run)
9 = Composite ENSO or List of Years (6-mins for new run)

Ranks / trend start year: 1940

Note: For periods that wrap around New Year, the start year should by the year at the start of the period. For 1974-75 to 2023-24, (50 years), enter 1974 here (end year should be most current year).

Choose Map Theme (1-8): 2

Available themes: 1 = t2m, 2 = precip, 3 = snow, 4 = sst , 5 = dewpt, 6 = clouds, 7 = wind, 8 = seaice

Map Elements (Check top row for most N. American maps)
Lower 48 States ☑ U.S. Counties ☑ Canada Provinces ☑
Major Rivers ☐ U.S. Interstates ☐ Gridlines ☐
NWS WFOs ☐ NPS Units ☐ Climate Divs ☐
Major World Cities ☐ World Roads (adds 1:00) ☐

Last month to start evaluation (e.g., 2 for Feb): 4

Number of months (up to 12) to evaluate (e.g., 3 for Dec-Feb): 7

Year of last month for assessment: 2024

Note 1: Do not select a date in the future!
Note 2: Make sure that your period is not 1939-40. There is no 1939 data.
Note 3: Even when generating normals, make sure not to pick a date in the future.

Values or Departure strip (1=Values, 2=Departure): 1
Show Values or Departure strip (1=Yes, 2=No): 1

Begin Climo 1991 **End** Climo 2020

Central Longitude (Arctic Only) 0
(Used for Map Type options 2 and 3 above)

ENSO Section Only ONI Min -5.0 ONI Max 5.0 [Use to select from a range of average ONI val; or enter list of years manually below.]

OR List of years
Map Subtitle (used when a list of years is entered) 20 chars or less
Above/Below (1=Above/2=Below): 1 100.0 From Climo. Use Detrended Climatology (ONI or list of years) ☑

[Note 1: Only Used if Map Type is 9. Takes 6 mins for new query. Min of 4+ years and separated by commas has priority. For DJF use end year.]
[Note 2: For the count of years above the trendline, units are % avg for snow and precip and clouds. Specify units below for temp, dew pt, and wind.

Units -> Metric or Imperial (1 = Metric, 2 = Imperial): 1

Temp/Wind Departure/Temp Trend Interval 1.0 (Makes 11 categories of Map Interval size.)

Dark Mode : ☐

Raw data obtained from Copernicus ECMWF Server. Analysis may not be accurate. **Use at your own risk!**

Generate (to reset form, select map area 0 and press button)

ENSO Composites

Note: There are two ways to run the ENSO Composite option. First is to select an ONI range. The second is to manually select a list of years. For each option, two maps are made. An average departure and a count above/below a user-defined threshold (two maps). By default, the average departure is the departure from the long-term trend (define the start year for the trend in the “Ranks / trend start year” box. This essentially detrends the time series – but can be skipped if desired. The above/below option for temperature is compared to the detrended Long-term average and uses the user-specified units. For precipitation, it is above/below the percent of detrended average (100% equals the long-term average. When selecting a list of years, make sure to have no spaces (only a comma) between the years. Use the end year for periods to cross over the new year. No Time series strip is generated.

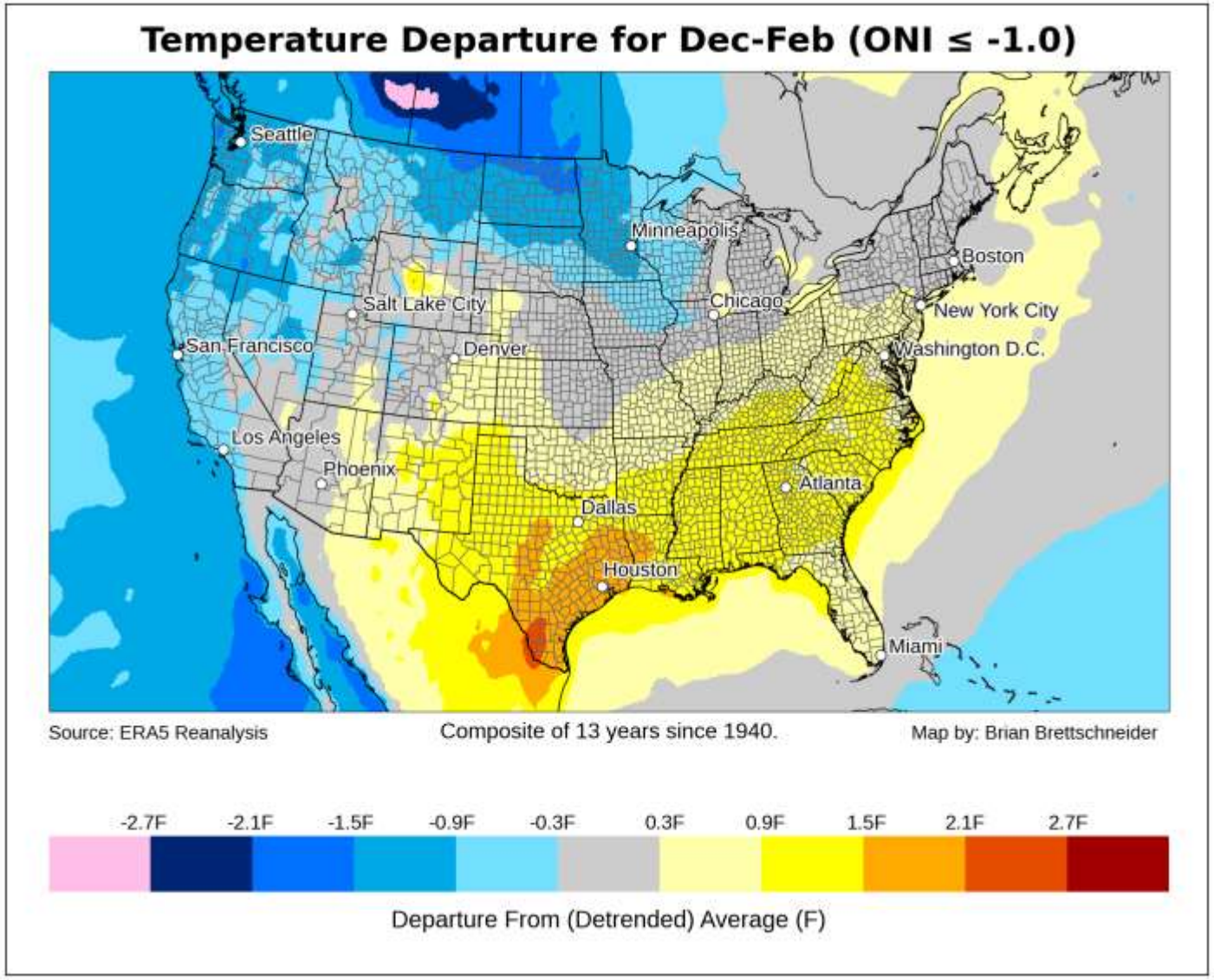
Contiguous U.S. Dec-Feb Temperature When ONI < -1 (La Nina Winters)

This is the first of two maps generated. The next page has the second map.

Make sure to have the units (for temperature (and wind) chosen and an appropriate mapping interval

This is an average departure from the detrended long-term average (since 1940)

To restrict the years chosen, change the start year to something after 1940



Select Map Area (1-10) 3

1 = Global (time: 0:30 to 1:20)
2 = U.S./Canada (time: 0:30 to 1:40)
3 = Contiguous U.S. (time: 0:30 to 1:50)
4 = Alaska (time: 0:30 to 1:30) ☐ Indigenous names
5 = Alaska and NW Canada (time: 0:30 to 1:15)
6 = Polar (time: 0:30 to 1:30) (60 to 90) North ☑
7 = Europe (time: 0:30 to 1:20)
8 = Pacific Northwest (time: 0:30 to 1:35)
9 = U.S. Pacific Islands (time: 0:30 to 1:25)
10 = Country, State, Province, or Box (all Plate Carree)
Global
Countries (e.g., Country New Zealand)
States (e.g., State New York)
Canada provinces/territories (e.g., Canada Manitoba)
Box, N. Lat, S. Lat, W. Lon, E. Lon (Example: Box,45,25,-120,-50)

Select Map Type (1-9) 9

1 = Ranks (since 1940)
2 = Departure From Normal (not clouds/wind)
3 = Below, Near, Above Normal (slower)
4 = Target Year Values (not wind)
5 = Normal Values (not wind)
6 = 50 or 75-Year trend (8-10 mins for new run)
7 = 50-Year ENSO Season Correlation (6-10 mins for new run)
8 = SPI (precip auto selected; 8-mins for new run)
9 = Composite ENSO or List of Years (6-mins for new run)

Ranks / trend start year 1940

Note: For periods that wrap around New Year, the start year should by the year at the start of the period. For 1974-75 to 2023-24, (50 years), enter 1974 here (end year should be most current year).

Choose Map Theme (1-8): 1

Available themes: 1 = t2m, 2 = precip, 3 = snow, 4 = sst , 5 = dewpt, 6 = clouds, 7 = wind, 8 = seaice

Map Elements (Check top row for most N. American maps)
Lower 48 States ☑ U.S. Counties ☑ Canada Provinces ☑
Major Rivers ☐ U.S. Interstates ☐ Gridlines ☐
NWS WFOs ☐ NPS Units ☐ Climate Divs ☐
Major World Cities ☐ World Roads (adds 1:00) ☐

Last month to start evaluation (e.g., 2 for Feb) 2

Number of months (up to 12) to evaluate (e.g., 3 for Dec-Feb): 3

Year of last month for assessment: 2024

Note 1: Do not select a date in the future!
Note 2: Make sure that your period is not 1939-40. There is no 1939 data.
Note 3: Even when generating normals, make sure not to pick a date in the future.

Values or Departure strip (1=Values, 2=Departure): 1
Show Values or Departure strip (1=Yes, 2=No): 1

Begin Climo 1991 **End** Climo 2020

Central Longitude (Arctic Only) 0
(Used for Map Type options 2 and 3 above)

ENSO Section Only ONI Min -5.0 ONI Max -1.0 [Use to select from a range of average ONI val; or enter list of years manually below.]

OR List of years
Map Subtitle (used when a list of years is entered) 20 chars or less
Above/Below (1=Above/2=Below): 1 0.0 From Climo. Use Detrended Climatology (ONI or list of years) ☑

[Note 1: Only Used if Map Type is 9. Takes 6 mins for new query. Min of 4+ years and separated by commas has priority. For DJF use end year.]
[Note 2: For the count of years above the trendline, units are % avg for snow and precip and clouds. Specify units below for temp, dew pt, and wind.

Units -> Metric or Imperial (1 = Metric, 2 = Imperial): 1

Temp/Wind Departure/Temp Trend Interval 0.6 (Makes 11 categories of Map Interval size.)

Dark Mode : ☐

Raw data obtained from Copernicus ECMWF Server. Analysis may not be accurate. **Use at your own risk!**

Generate (to reset form, select map area 0 and press button)

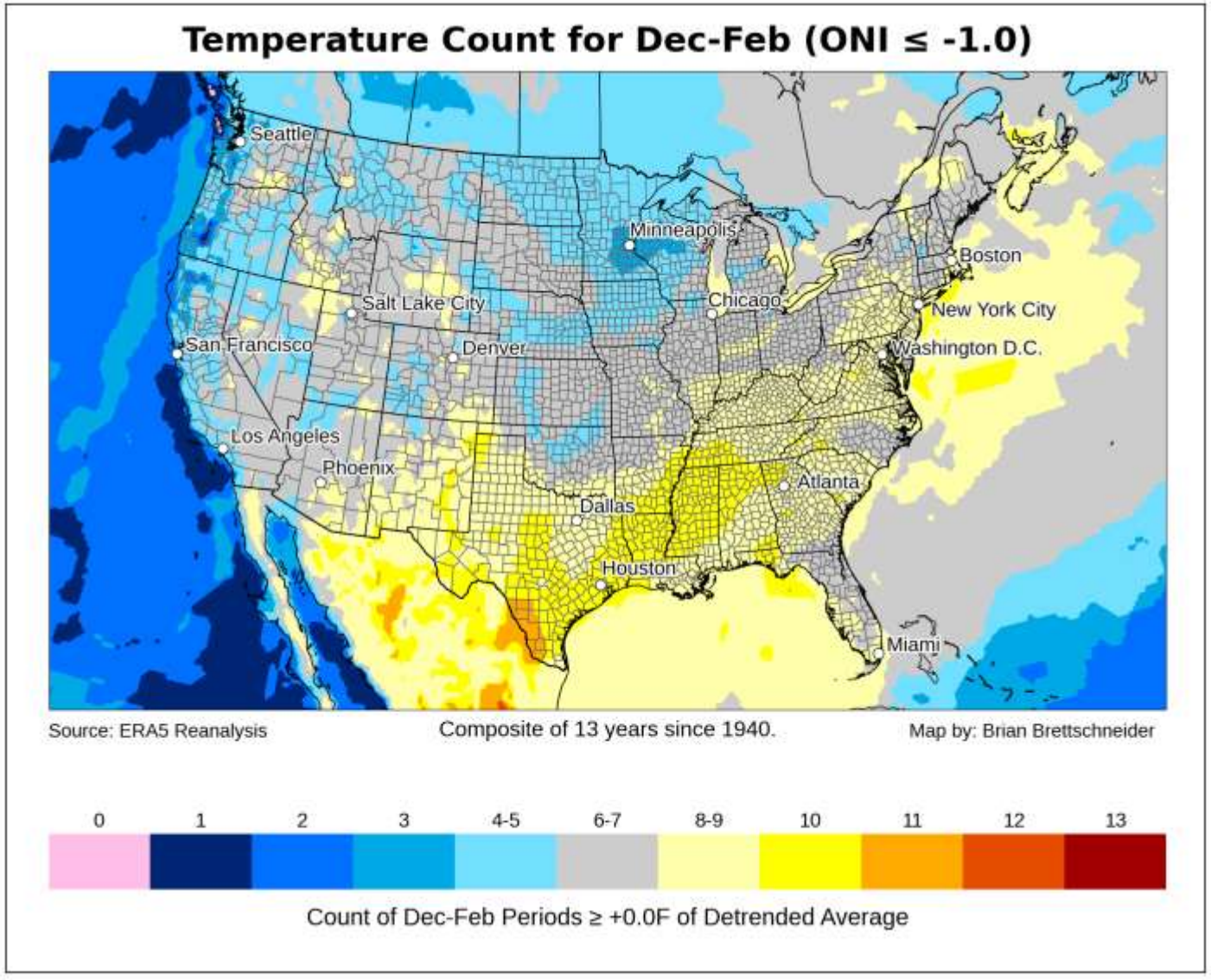
Contiguous U.S. Dec-Feb Temperature When ONI < -1 (La Nina Winters)

This is the second of two maps generated. The previous page has the first map.

Make sure to have the units (for temperature (and wind) chosen and an appropriate mapping interval

This is the count above normal (> 0.0F) from the detrended long-term average (since 1940)

To restrict the years chosen, change the start year to something after 1940



Select Map Area (1-10) 3

1 = Global (time: 0:30 to 1:20)
2 = U.S./Canada (time: 0:30 to 1:40)
3 = Contiguous U.S. (time: 0:30 to 1:50)
4 = Alaska (time: 0:30 to 1:30) ☐ Indigenous names
5 = Alaska and NW Canada (time: 0:30 to 1:15)
6 = Polar (time: 0:30 to 1:30) (60 to 90) North ☑
7 = Europe (time: 0:30 to 1:20)
8 = Pacific Northwest (time: 0:30 to 1:35)
9 = U.S. Pacific Islands (time: 0:30 to 1:25)
10 = Country, State, Province, or Box (all Plate Carree)

Global

Countries (e.g., Country New Zealand)
States (e.g., State New York)
Canada provinces/territories (e.g., Canada Manitoba)
Box, N. Lat, S. Lat, W. Lon, E. Lon (Example: Box,45,25,-120,-50)

Select Map Type (1-9) 9

1 = Ranks (since 1940)
2 = Departure From Normal (not clouds/wind)
3 = Below, Near, Above Normal (slower)
4 = Target Year Values (not wind)
5 = Normal Values (not wind)
6 = 50 or 75-Year trend (8-10 mins for new run)
7 = 50-Year ENSO Season Correlation (6-10 mins for new run)
8 = SPI (precip auto selected; 8-mins for new run)
9 = Composite ENSO or List of Years (6-mins for new run)

Ranks / trend start year 1940

Note: For periods that wrap around New Year, the start year should by the year at the start of the period. For 1974-75 to 2023-24, (50 years), enter 1974 here (end year should be most current year).

Choose Map Theme (1-8): 1

Available themes: 1 = t2m, 2 = precip, 3 = snow, 4 = sst , 5 = dewpt, 6 = clouds, 7 = wind, 8 = seaice

Map Elements (Check top row for most N. American maps)
Lower 48 States ☑ U.S. Counties ☑ Canada Provinces ☑
Major Rivers ☐ U.S. Interstates ☐ Gridlines ☐
NWS WFOs ☐ NPS Units ☐ Climate Divs ☐
Major World Cities ☐ World Roads (adds 1:00) ☐

Last month to start evaluation (e.g., 2 for Feb) 2

Number of months (up to 12) to evaluate (e.g., 3 for Dec-Feb): 3

Year of last month for assessment: 2024

Note 1: Do not select a date in the future!
Note 2: Make sure that your period is not 1939-40. There is no 1939 data.
Note 3: Even when generating normals, make sure not to pick a date in the future.

Values or Departure strip (1=Values, 2=Departure): 1
Show Values or Departure strip (1=Yes, 2=No): 1

Begin Climo 1991 **End** Climo 2020

Central Longitude (Arctic Only) 0
(Used for Map Type options 2 and 3 above)

ENSO Section Only ONI Min -5.0 ONI Max -1.0 [Use to select from a range of average ONI val; or enter list of years manually below.]

OR List of years

Map Subtitle (used when a list of years is entered) 20 chars or less

Above/Below (1=Above/2=Below): 1 0.0 From Climo. Use Detrended Climatology (ONI or list of years) ☑

[Note 1: Only Used if Map Type is 9. Takes 6 mins for new query. Min of 4+ years and separated by commas has priority. For DJF use end year.]
[Note 2: For the count of years above the trendline, units are % avg for snow and precip and clouds. Specify units below for temp, dew pt, and wind.

Units -> Metric or Imperial (1 = Metric, 2 = Imperial): 1

Temp/Wind Departure/Temp Trend Interval 0.6 (Makes 11 categories of Map Interval size.)

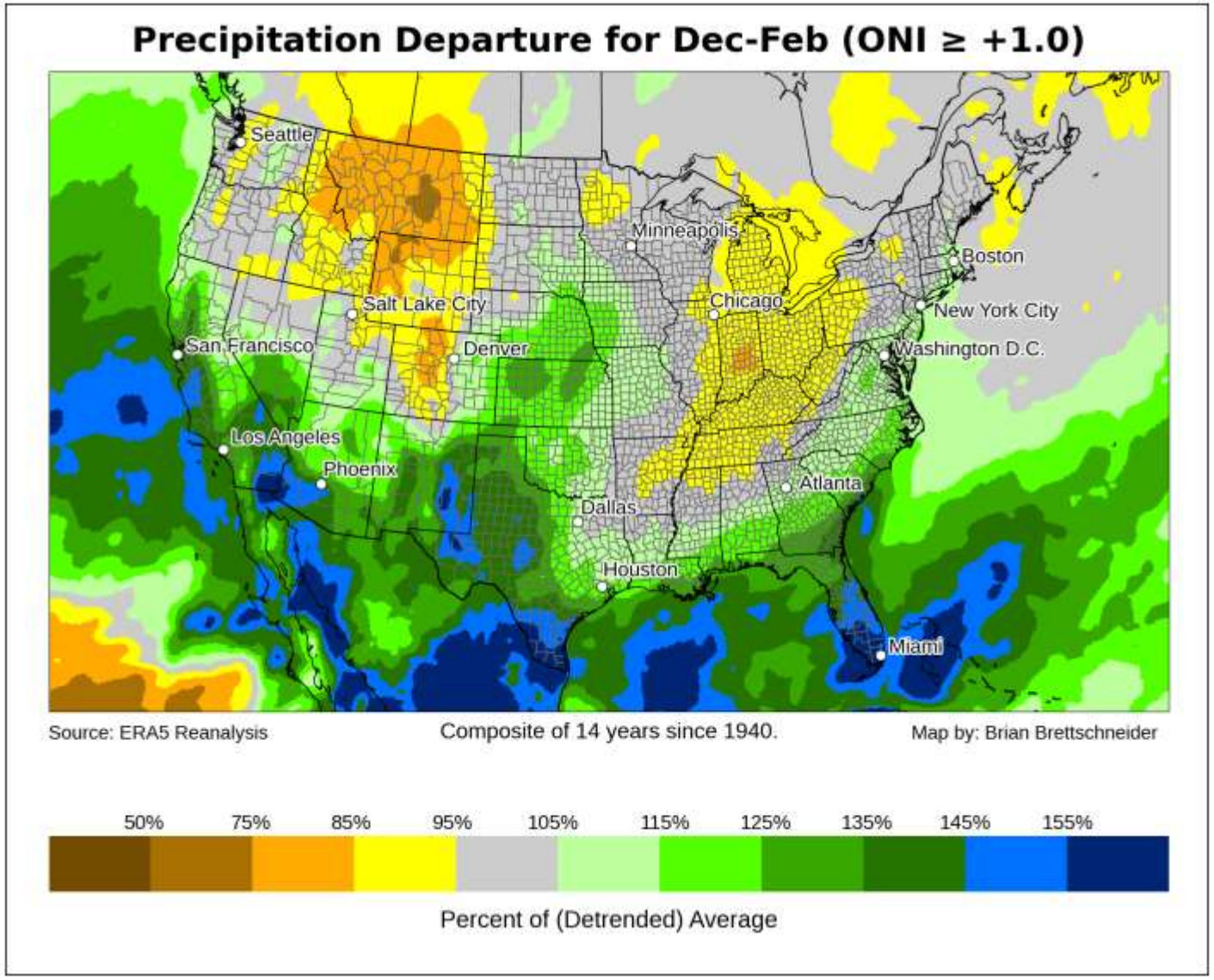
Dark Mode : ☐

Raw data obtained from Copernicus ECMWF Server. Analysis may not be accurate. **Use at your own risk!**

Generate (to reset form, select map area 0 and press button)

Contiguous U.S. Dec-Feb Precipitation When ONI >+1 (El Nino Winters)

This is the first of two maps generated. The next page has the second map.
The units and mapping interval are automatically chosen for precipitation and snowfall
This is an average departure from the detrended long-term average (since 1940)
To restrict the years chosen, change the start year to something after 1940



Select Map Area (1-10) 3

1 = Global (time: 0:30 to 1:20)
2 = U.S./Canada (time: 0:30 to 1:40)
3 = Contiguous U.S. (time: 0:30 to 1:50)
4 = Alaska (time: 0:30 to 1:30) ☐ Indigenous names
5 = Alaska and NW Canada (time: 0:30 to 1:15)
6 = Polar (time: 0:30 to 1:30) (60 to 90) North ☑
7 = Europe (time: 0:30 to 1:20)
8 = Pacific Northwest (time: 0:30 to 1:35)
9 = U.S. Pacific Islands (time: 0:30 to 1:25)
10 = Country, State, Province, or Box (all Plate Carree)
Global
Countries (e.g., Country New Zealand)
States (e.g., State New York)
Canada provinces/territories (e.g., Canada Manitoba)
Box, N. Lat, S. Lat, W. Lon, E. Lon (Example: Box,45,25,-120,-50)

Select Map Type (1-9) 9

1 = Ranks (since 1940)
2 = Departure From Normal (not clouds/wind)
3 = Below, Near, Above Normal (slower)
4 = Target Year Values (not wind)
5 = Normal Values (not wind)
6 = 50 or 75-Year trend (8-10 mins for new run)
7 = 50-Year ENSO Season Correlation (6-10 mins for new run)
8 = SPI (precip auto selected; 8-mins for new run)
9 = Composite ENSO or List of Years (6-mins for new run)

Ranks / trend start year 1940

Note: For periods that wrap around New Year, the start year should by the year at the start of the period. For 1974-75 to 2023-24, (50 years), enter 1974 here (end year should be most current year).

Choose Map Theme (1-8) 2

Available themes: 1 = t2m, 2 = precip, 3 = snow, 4 = sst , 5 = dewpt, 6 = clouds, 7 = wind, 8 = seaice

Map Elements (Check top row for most N. American maps)
Lower 48 States ☑ U.S. Counties ☑ Canada Provinces ☑
Major Rivers ☐ U.S. Interstates ☐ Gridlines ☐
NWS WFOs ☐ NPS Units ☐ Climate Divs ☐
Major World Cities ☐ World Roads (adds 1:00) ☐

Last month to start evaluation (e.g., 2 for Feb) 2

Number of months (up to 12) to evaluate (e.g., 3 for Dec-Feb) 3

Year of last month for assessment: 2024

Note 1: Do not select a date in the future!
Note 2: Make sure that your period is not 1939-40. There is no 1939 data.
Note 3: Even when generating normals, make sure not to pick a date in the future.

Values or Departure strip (1=Values, 2=Departure): 1
Show Values or Departure strip (1=Yes, 2=No): 1

Begin Climo 1991 **End** Climo 2020

Central Longitude (Arctic Only) 0
(Used for Map Type options 2 and 3 above)

ENSO Section Only ONI Min 1.0 ONI Max 5.0 [Use to select from a range of average ONI val; or enter list of years manually below.]

OR List of years
Map Subtitle (used when a list of years is entered): 20 chars or less
Above/Below (1=Above/2=Below): 1 100.0 From Climo. Use Detrended Climatology (ONI or list of years) ☑

[Note 1: Only Used if Map Type is 9. Takes 6 mins for new query. Min of 4+ years and separated by commas has priority. For DJF use end year.]
[Note 2: For the count of years above the trendline, units are % avg for snow and precip and clouds. Specify units below for temp, dew pt, and wind.

Units -> Metric or Imperial (1 = Metric, 2 = Imperial) 2

Temp/Wind Departure/Temp Trend Interval 0.6 (Makes 11 categories of Map Interval size.)

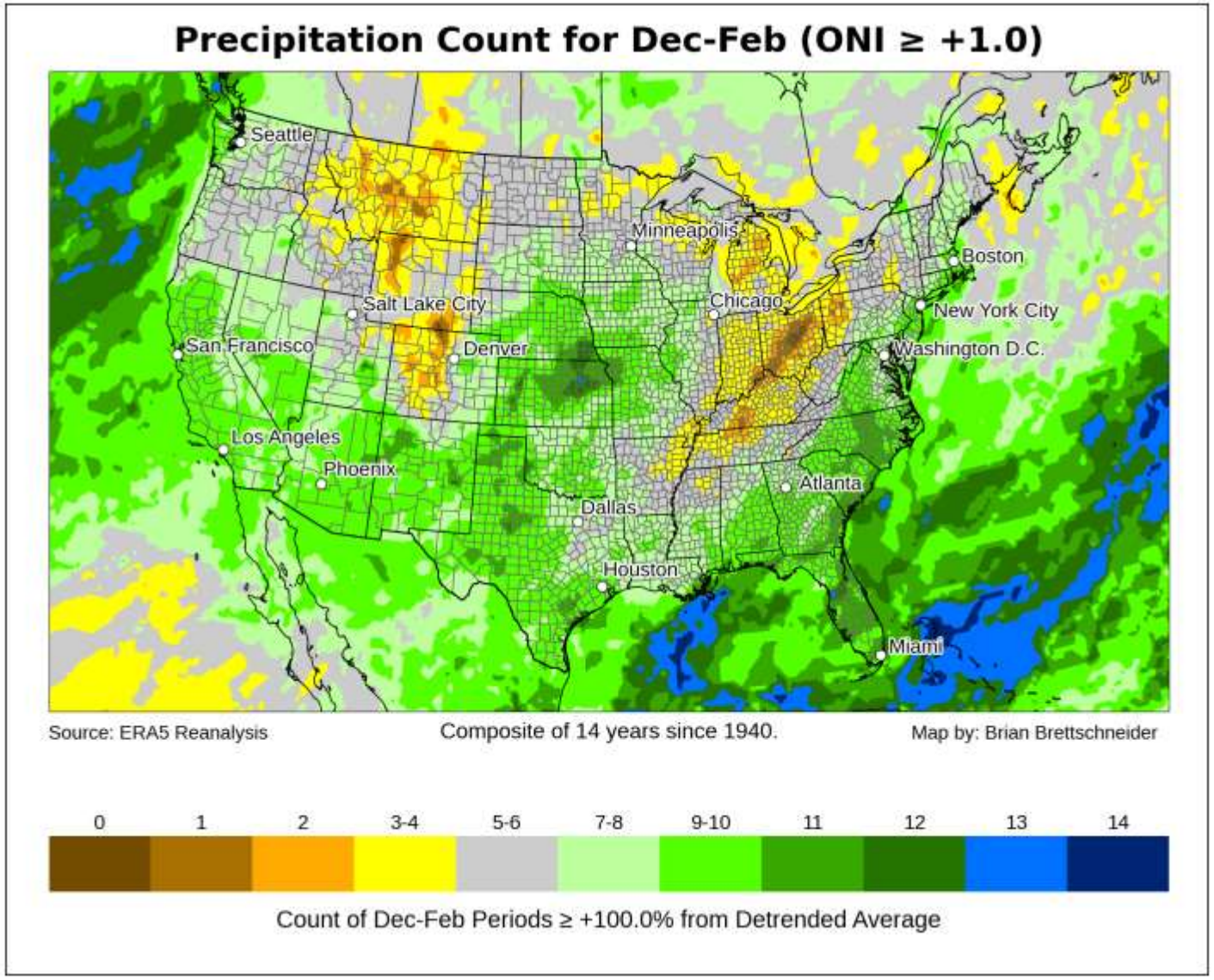
Dark Mode : ☐

Raw data obtained from Copernicus ECMWF Server. Analysis may not be accurate. **Use at your own risk!**

Generate (to reset form, select map area 0 and press button)

Contiguous U.S. Dec-Feb Precipitation When ONI >+1 (El Nino Winters)

This is the second of two maps generated. The previous page has the first map.
The units and mapping interval are automatically chosen for precipitation and snowfall
This is the count above normal (> 100.0%) from the detrended long-term average (since 1940)
To restrict the years chosen, change the start year to something after 1940



Select Map Area (1-10) 3

1 = Global (time: 0:30 to 1:20)
2 = U.S./Canada (time: 0:30 to 1:40)
3 = Contiguous U.S. (time: 0:30 to 1:50)
4 = Alaska (time: 0:30 to 1:30) ☐ Indigenous names
5 = Alaska and NW Canada (time: 0:30 to 1:15)
6 = Polar (time: 0:30 to 1:30) (60 to 90) North ☑
7 = Europe (time: 0:30 to 1:20)
8 = Pacific Northwest (time: 0:30 to 1:35)
9 = U.S. Pacific Islands (time: 0:30 to 1:25)
10 = Country, State, Province, or Box (all Plate Carree)
Global
Countries (e.g., Country New Zealand)
States (e.g., State New York)
Canada provinces/territories (e.g., Canada Manitoba)
Box, N. Lat, S. Lat, W. Lon, E. Lon (Example: Box,45,25,-120,-50)

Select Map Type (1-9) 9

1 = Ranks (since 1940)
2 = Departure From Normal (not clouds/wind)
3 = Below, Near, Above Normal (slower)
4 = Target Year Values (not wind)
5 = Normal Values (not wind)
6 = 50 or 75-Year trend (8-10 mins for new run)
7 = 50-Year ENSO Season Correlation (6-10 mins for new run)
8 = SPI (precip auto selected; 8-mins for new run)
9 = Composite ENSO or List of Years (6-mins for new run)

Ranks / trend start year 1940

Note: For periods that wrap around New Year, the start year should by the year at the start of the period. For 1974-75 to 2023-24, (50 years), enter 1974 here (end year should be most current year).

Choose Map Theme (1-8) 2

Available themes: 1 = t2m, 2 = precip, 3 = snow, 4 = sst , 5 = dewpt, 6 = clouds, 7 = wind, 8 = seaice

Map Elements (Check top row for most N. American maps)
Lower 48 States ☑ U.S. Counties ☑ Canada Provinces ☑
Major Rivers ☐ U.S. Interstates ☐ Gridlines ☐
NWS WFOs ☐ NPS Units ☐ Climate Divs ☐
Major World Cities ☐ World Roads (adds 1:00) ☐

Last month to start evaluation (e.g., 2 for Feb) 2

Number of months (up to 12) to evaluate (e.g., 3 for Dec-Feb) 3

Year of last month for assessment 2024

Note 1: Do not select a date in the future!
Note 2: Make sure that your period is not 1939-40. There is no 1939 data.
Note 3: Even when generating normals, make sure not to pick a date in the future.

Values or Departure strip (1=Values, 2=Departure): 1
Show Values or Departure strip (1=Yes, 2=No): 1

Begin Climo 1991 **End** Climo 2020

Central Longitude (Arctic Only) 0
(Used for Map Type options 2 and 3 above)

ENSO Section Only ONI Min 1.0 ONI Max 5.0 [Use to select from a range of average ONI val; or enter list of years manually below.]

OR List of years
Map Subtitle (used when a list of years is entered) 20 chars or less
Above/Below (1=Above/2=Below): 1 100.0 From Climo. Use Detrended Climatology (ONI or list of years) ☑

[Note 1: Only Used if Map Type is 9. Takes 6 mins for new query. Min of 4+ years and separated by commas has priority. For DJF use end year.]
[Note 2: For the count of years above the trendline, units are % avg for snow and precip and clouds. Specify units below for temp, dew pt, and wind.

Units -> Metric or Imperial (1 = Metric, 2 = Imperial) 2

Temp/Wind Departure/Temp Trend Interval 0.6 (Makes 11 categories of Map Interval size.)

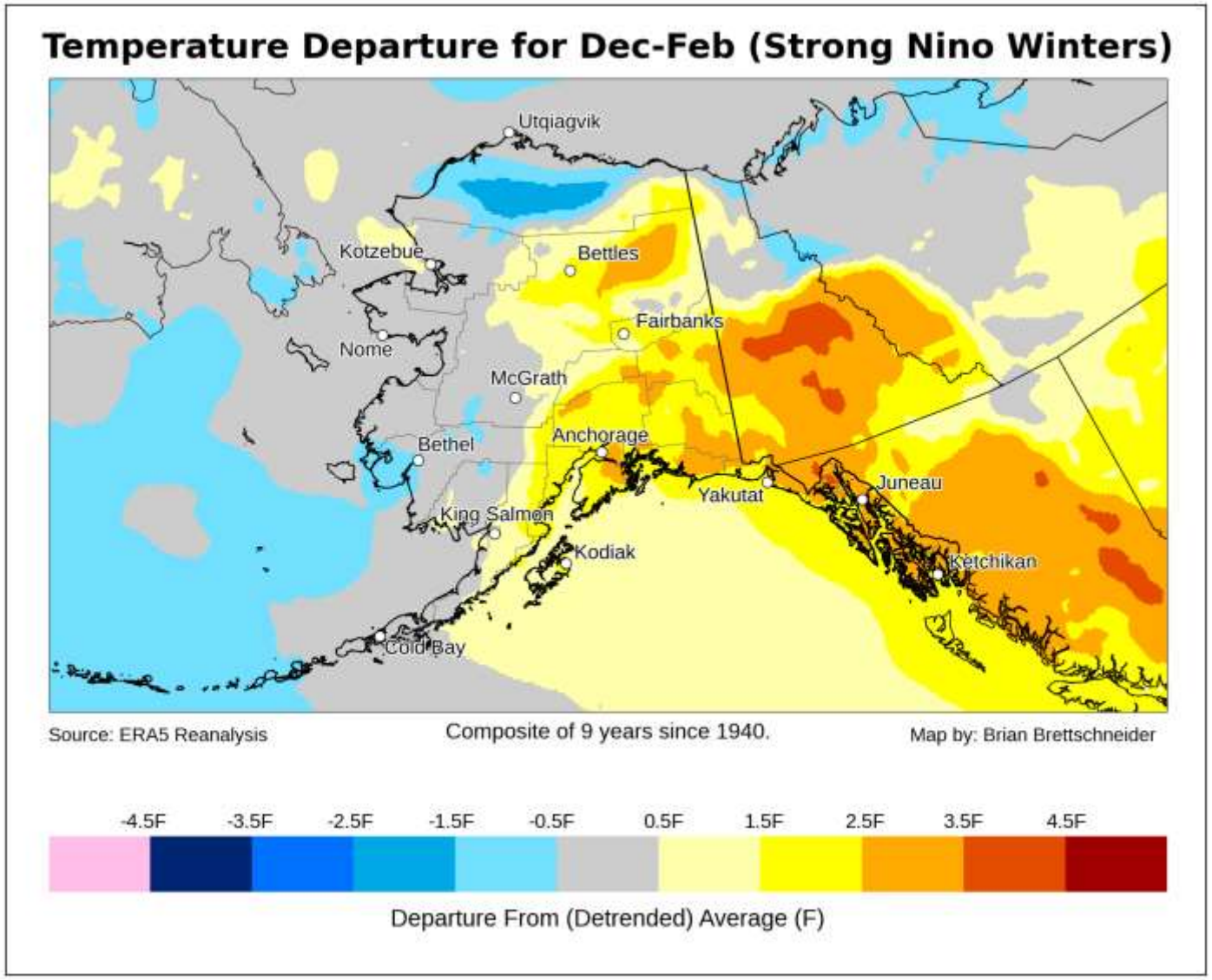
Dark Mode : ☐

Raw data obtained from Copernicus ECMWF Server. Analysis may not be accurate. **Use at your own risk!**

Generate (to reset form, select map area 0 and press button)

Alaska Dec-Feb Temperature For A List of Years

This is the first of two maps generated. The next page has the second map.
Make sure to have the units (for temperature (and wind) chosen and an appropriate mapping interval
This is an average departure from the detrended long-term average for the list of years.
Note the Map Subtitle box. Be sure to enter something here (up to 20 characters)



Select Map Area (1-10): 4

1 = Global (time: 0:30 to 1:20)
2 = U.S./Canada (time: 0:30 to 1:40)
3 = Contiguous U.S. (time: 0:30 to 1:50)
4 = Alaska (time: 0:30 to 1:30) ☐ Indigenous names
5 = Alaska and NW Canada (time: 0:30 to 1:15)
6 = Polar (time: 0:30 to 1:30) (60 to 90) North ☑
7 = Europe (time: 0:30 to 1:20)
8 = Pacific Northwest (time: 0:30 to 1:35)
9 = U.S. Pacific Islands (time: 0:30 to 1:25)
10 = Country, State, Province, or Box (all Plate Carree)
Global
Countries (e.g., Country New Zealand)
States (e.g., State New York)
Canada provinces/territories (e.g., Canada Manitoba)
Box, N. Lat, S. Lat, W. Lon, E. Lon (Example: Box,45,25,-120,-50)

Select Map Type (1-9): 9

1 = Ranks (since 1940)
2 = Departure From Normal (not clouds/wind)
3 = Below, Near, Above Normal (slower)
4 = Target Year Values (not wind)
5 = Normal Values (not wind)
6 = 50 or 75-Year trend (8-10 mins for new run)
7 = 50-Year ENSO Season Correlation (6-10 mins for new run)
8 = SPI (precip auto selected; 8-mins for new run)
9 = Composite ENSO or List of Years (6-mins for new run)

Ranks / trend start year 1940

Note: For periods that wrap around New Year, the start year should by the year at the start of the period. For 1974-75 to 2023-24, (50 years), enter 1974 here (end year should be most current year).

Choose Map Theme (1-8): 1

Available themes: 1 = t2m, 2 = precip, 3 = snow, 4 = sst , 5 = dewpt, 6 = clouds, 7 = wind, 8 = seaice

Map Elements (Check top row for most N. American maps)
Lower 48 States ☑ U.S. Counties ☑ Canada Provinces ☑
Major Rivers ☐ U.S. Interstates ☐ Gridlines ☐
NWS WFOs ☐ NPS Units ☐ Climate Divs ☐
Major World Cities ☐ World Roads (adds 1:00) ☐

Last month to start evaluation (e.g., 2 for Feb): 2

Number of months (up to 12) to evaluate (e.g., 3 for Dec-Feb): 3

Year of last month for assessment: 2024

Note 1: Do not select a date in the future!
Note 2: Make sure that your period is not 1939-40. There is no 1939 data.
Note 3: Even when generating normals, make sure not to pick a date in the future.

Values or Departure strip (1=Values, 2=Departure): 1
Show Values or Departure strip (1=Yes, 2=No): 1

Begin Climo 1991 **End** Climo 2020

Central Longitude (Arctic Only) 0
(Used for Map Type options 2 and 3 above)

ENSO Section Only ONI Min 5.0 ONI Max 5.0 [Use to select from a range of average ONI val; or enter list of years manually below.]

OR List of years 1941,1958,1973,1983,1992,1998,2010,2016,2014
Map Subtitle (used when a list of years is entered) Strong Nino Winters
Above/Below (1=Above/2=Below): 1 0.0 From Climo Use Detrended Climatology (ONI or list of years) ☑

[Note 1: Only Used if Map Type is 9. Takes 6 mins for new query. Min of 4+ years and separated by commas has priority. For DJF use end year.]
[Note 2: For the count of years above the trendline, units are % avg for snow and precip and clouds. Specify units below for temp, dew pt, and wind.

Units -> Metric or Imperial (1 = Metric, 2 = Imperial): 2

Temp/Wind Departure/Temp Trend Interval 1 (Makes 11 categories of Map Interval size.)

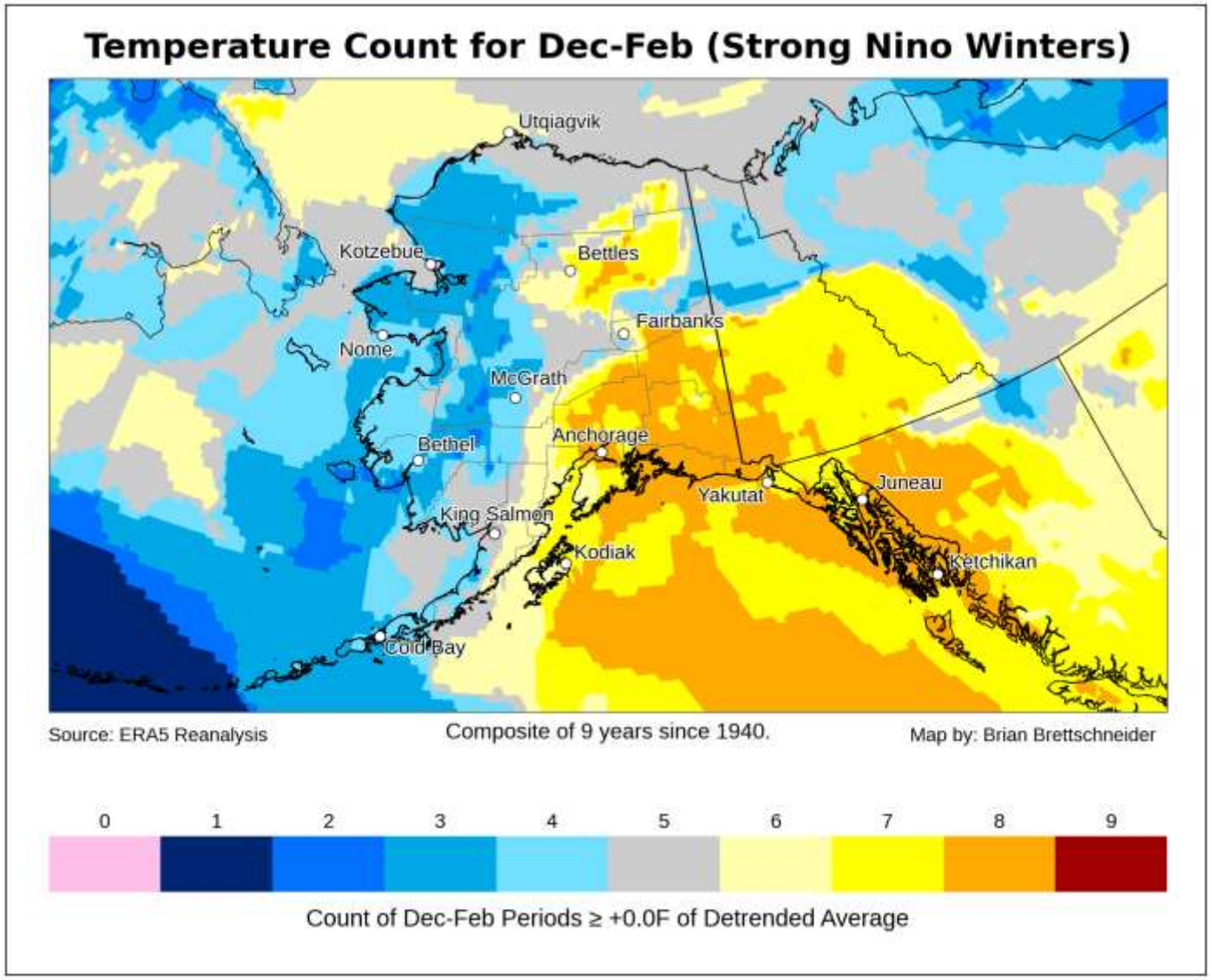
Dark Mode : ☐

Raw data obtained from Copernicus ECMWF Server. Analysis may not be accurate. **Use at your own risk!**

Generate (to reset form, select map area 0 and press button)

Alaska Dec-Feb Temperature For A List of Years

This is the second of two maps generated. The previous page has the first map.
Make sure to have the units (for temperature (and wind) chosen and an appropriate mapping interval
This is the count above normal (> 0.0F) from the detrended long-term average for the list of years.
Note the Map Subtitle box. Be sure to enter something here (up to 20 characters)



Select Map Area (1-10): 4

1 = Global (time: 0:30 to 1:20)
2 = U.S./Canada (time: 0:30 to 1:40)
3 = Contiguous U.S. (time: 0:30 to 1:50)
4 = Alaska (time: 0:30 to 1:30) ☐ Indigenous names
5 = Alaska and NW Canada (time: 0:30 to 1:15)
6 = Polar (time: 0:30 to 1:30) (60 to 90) North ☑
7 = Europe (time: 0:30 to 1:20)
8 = Pacific Northwest (time: 0:30 to 1:35)
9 = U.S. Pacific Islands (time: 0:30 to 1:25)
10 = Country, State, Province, or Box (all Plate Carree)
Global
Countries (e.g., Country New Zealand)
States (e.g., State New York)
Canada provinces/territories (e.g., Canada Manitoba)
Box, N. Lat, S. Lat, W. Lon, E. Lon (Example: Box,45,25,-120,-50)

Select Map Type (1-9): 9

1 = Ranks (since 1940)
2 = Departure From Normal (not clouds/wind)
3 = Below, Near, Above Normal (slower)
4 = Target Year Values (not wind)
5 = Normal Values (not wind)
6 = 50 or 75-Year trend (8-10 mins for new run)
7 = 50-Year ENSO Season Correlation (6-10 mins for new run)
8 = SPI (precip auto selected; 8-mins for new run)
9 = Composite ENSO or List of Years (6-mins for new run)

Ranks / trend start year 1940

Note: For periods that wrap around New Year, the start year should by the year at the start of the period. For 1974-75 to 2023-24, (50 years), enter 1974 here (end year should be most current year).

Choose Map Theme (1-8): 1

Available themes: 1 = t2m, 2 = precip, 3 = snow, 4 = sst , 5 = dewpt, 6 = clouds, 7 = wind, 8 = seaice

Map Elements (Check top row for most N. American maps)
Lower 48 States ☑ U.S. Counties ☑ Canada Provinces ☑
Major Rivers ☐ U.S. Interstates ☐ Gridlines ☐
NWS WFOs ☐ NPS Units ☐ Climate Divs ☐
Major World Cities ☐ World Roads (adds 1:00) ☐

Last month to start evaluation (e.g., 2 for Feb): 2

Number of months (up to 12) to evaluate (e.g., 3 for Dec-Feb): 3

Year of last month for assessment: 2024

Note 1: Do not select a date in the future!
Note 2: Make sure that your period is not 1939-40. There is no 1939 data.
Note 3: Even when generating normals, make sure not to pick a date in the future.

Values or Departure strip (1=Values, 2=Departure): 1
Show Values or Departure strip (1=Yes, 2=No): 1

Begin Climo 1991 **End** Climo 2020

Central Longitude (Arctic Only) 0
(Used for Map Type options 2 and 3 above)

ENSO Section Only ONI Min 5.0 ONI Max 5.0 [Use to select from a range of average ONI val; or enter list of years manually below.]

OR List of years 1941,1958,1973,1983,1992,1998,2010,2016,2014
Map Subtitle (used when a list of years is entered) Strong Nino Winters
Above/Below (1=Above/2=Below): 1 0.0 From Climo Use Detrended Climatology (ONI or list of years) ☑

[Note 1: Only Used if Map Type is 9. Takes 6 mins for new query. Min of 4+ years and separated by commas has priority. For DJF use end year.]
[Note 2: For the count of years above the trendline, units are % avg for snow and precip and clouds. Specify units below for temp, dew pt, and wind.

Units -> Metric or Imperial (1 = Metric, 2 = Imperial): 2

Temp/Wind Departure/Temp Trend Interval 1 (Makes 11 categories of Map Interval size.)

Dark Mode : ☐

Raw data obtained from Copernicus ECMWF Server. Analysis may not be accurate. **Use at your own risk!**

Generate (to reset form, select map area 0 and press button)