Search Go

Climate Outlooks

Climate & Weather Link
- El Niño/La Niña
- MJO
- Teleconnections
  - AO
  - NAO
  - PNA
  - AAO
- Blocking
- Storm Tracks

Climate Glossary

Outreach

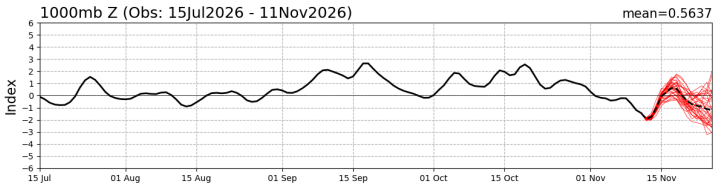
About Us
- Our Mission
- Who We Are

Contact Us
- Web Team

Arctic Oscillation (AO)

- Current Conditions
- Outlooks
- References

AO Index: Observed & GEFS Forecasts



Current Conditions

The daily AO index is constructed by projecting the daily (00Z) 1000mb height anomalies poleward of 20°N onto **the loading pattern of the AO**. Please note that year-round monthly mean anomaly data have been used to obtain the loading pattern of the AO (Methodology). Since the AO has the largest variability during the cold season, the loading pattern primarily captures characteristics of the cold season AO pattern.

The daily AO index and its forecasts using GFS and Ensemble mean forecast data are shown for the previous 120 days as indicated. Each daily value has been standardized by the standard deviation of the monthly AO index from 1979-2000.

- **Vertical cross section of NH polar vortex**
- **Daily AO index since January 1950**
- **Monthly mean AO index since January 1950**
  - Graphical format (All calendar months, JFM Seasonal mean)
  - **Tabular format**
  - **Ascii format for downloading**
- **Animations (circulations)**

- 30-day 200-hPa Heights
- 30-day NH 500-hPa Heights
- 30-day NH 10-hPa Temperatures
- 30-day NH 30-hPa Temperatures
- 30-day NH 50-hPa Temperatures

- **Time-Longitude Sections (circulations)**

  - 500-hPa Height Anomalies (45°N-60°N)
  - 500-hPa Height Anomalies (60°N-90°N)

[Back to the Top]

- **Outlooks**

  - **GFS AO outlooks**
  - **Ensemble mean AO outlooks**

[Back to the Top]

- **Publications**

Higgins, R. W., A. Leetmaa, and V. E. Kousky, 2002: Relationships between climate variability and winter temperature extremes in the United States. *J. Climate*, **15**, 1555-1572.

Higgins, R.W., Y. Zhou and H.-K. Kim, 2001: Relationships between El Niño-Southern Oscillation and the Arctic Oscillation: A Climate-Weather Link. NCEP/Climate Prediction Center ATLAS 8. (Link to Atlas)

Higgins, R. W., A. Leetmaa, Y. Xue, and A. Barnston, 2000: Dominant factors influencing the seasonal predictability of U.S. precipitation and surface air temperature. *J. Climate*, **13**, 3994-4017.

Larson, J., Y. Zhou and R. W. Higgins, 2004: Characteristics of landfalling tropical cyclones in the United States and Mexico: Climatology and Interannual Variability *J. Climate* (submitted)

Zhou, S., A. J. Miller, J. Wang, and J. K. Angell, 2001: Trends of NAO and AO and their associations with stratospheric processes. *Geophys. Res. Lett.*, **28**, 4107-4110.

[Back to the Top]

NOAA/ National Weather Service
National Centers for Environmental Prediction
Climate Prediction Center
5830 University Research Court
Riverdale Park, MD 20737
Page Author: Climate Prediction Center Internet Team
Page last modified: December 12, 2005

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