

# **Solar Forcing On The North Atlantic Oscillations**

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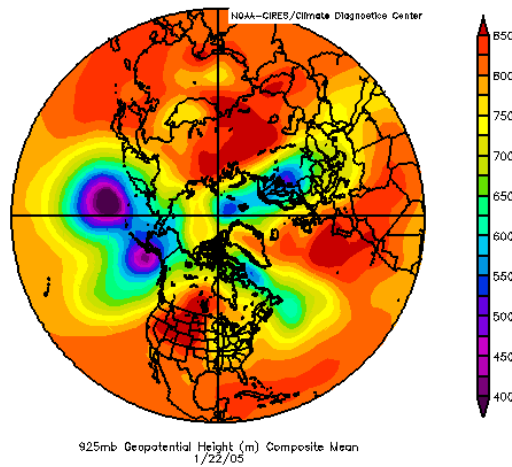
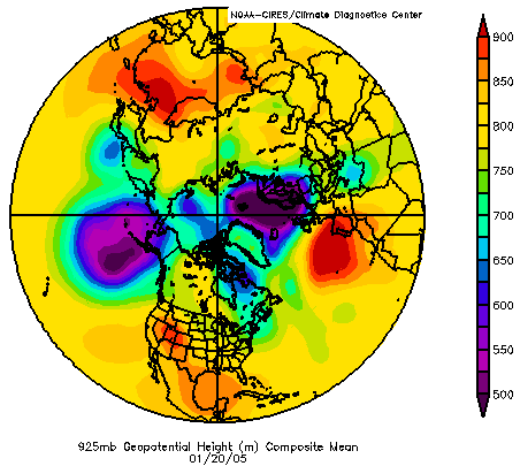
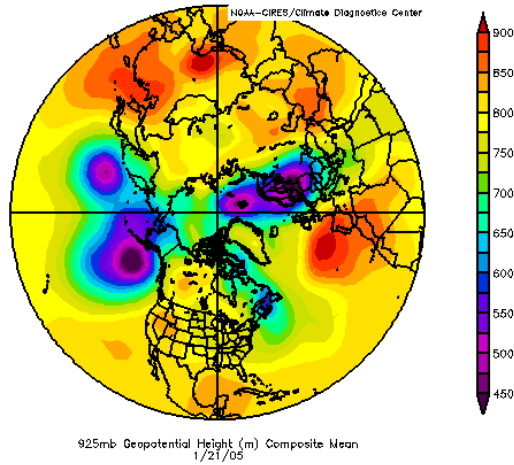
**It has been discovered that NAO is solar dominated. Their sign reversal is due to the turning points of Wolf-Gleissberg cycles.**

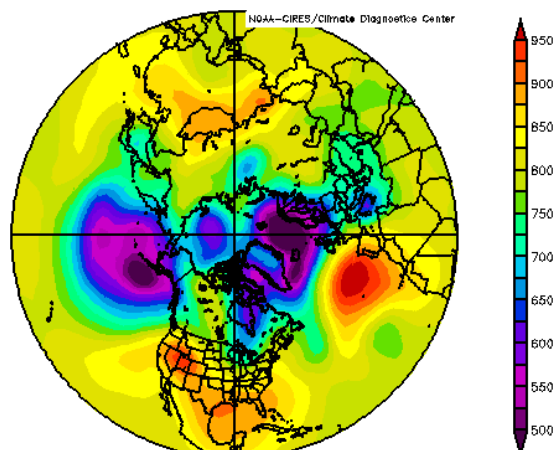
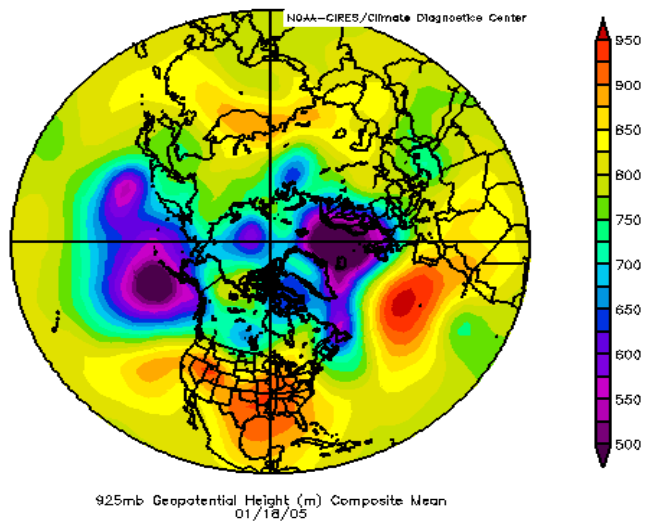
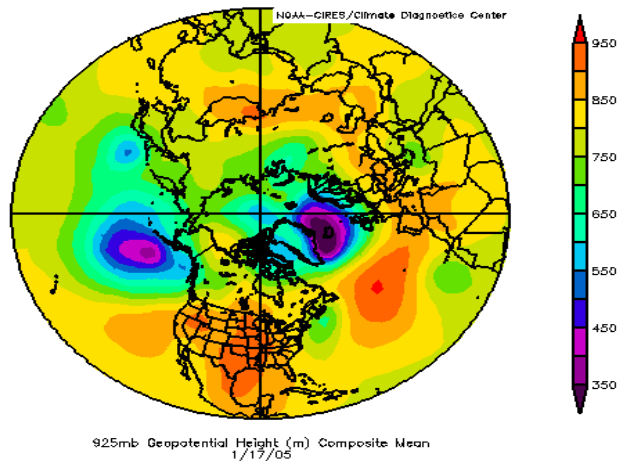
**When a CME hits the Earth, and protons and electrons enter the Polar regions through the Van Allen Belts, they heat the atmosphere. It will thus expand and get reduced in pressure thus deepen the Icelandic Low.**

## **Mechanism For Changing The General wind Circulation**

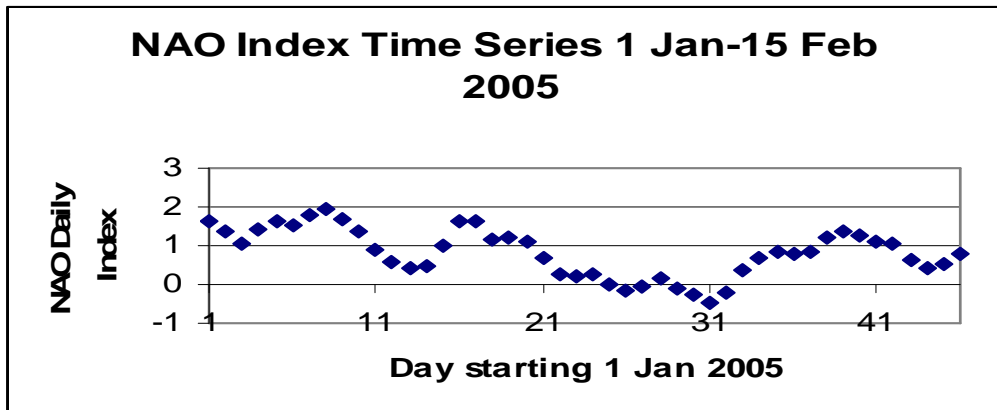
- 1-Solar protons enter the polar Regions from the night side through The Van Allen belts.**
- 2- Their energy gets dissipated into the Polar Atmosphere.**
- 3- The polar air gets heated and thus expand reducing the pressure.**
- 4- This will deepen the Icelandic Low and thus the sign of the North Atlantic Oscillation becomes more positive.**
- 5- Fast solar wind streams originating from coronal holes particularly at solar minimum switches NAO index to positive.**

## Geo-Potential Height Response to the January 2005 Proton Events (North Pole At Center)

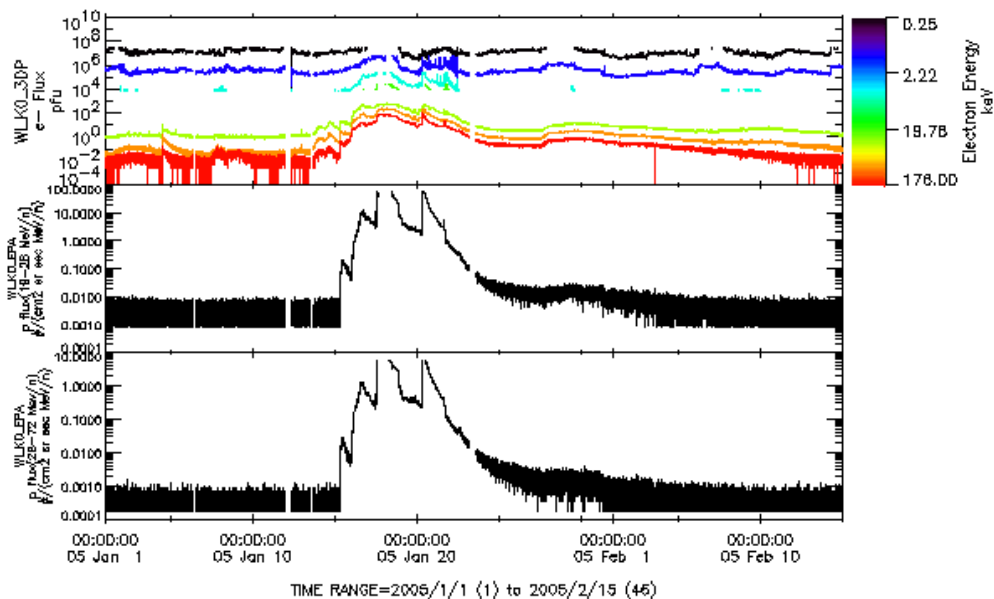




# The Response Of NAO Daily Index To The January 2005 Solar Proton Event



Multiple datasets being plotted; refer to labels on either side of plot.



Please acknowledge data provider(s), R. Lin at UC Berkeley and T. Von Rosenvinge at NASA/GSFC and CDASWeb when using these data.  
Key Parameter and Survey data (labels K0,K1,K2) are preliminary browse data.  
Generated by GDAWeb on Mon Mar 21 04:23:41 2005

## Geo-Potential Height Response To The November 2003 Proton Events

