

12.818: INTRODUCTION TO ATMOSPHERIC DATA AND LARGE-SCALE DYNAMICS  
PROJECT TWO: HYDROSTATIC BALANCE AND THE LARGE-SCALE TILT OF  
CONSTANT PRESSURE SURFACES

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In this project we will use the concept of hydrostatic balance to estimate the tilt, or rather the slope, of constant pressure surfaces in the atmosphere.

- 1 Maps**
- 2 Hydrostatic balance and the tilt of a constant pressure surface**
- 3 Change of tilt with height**

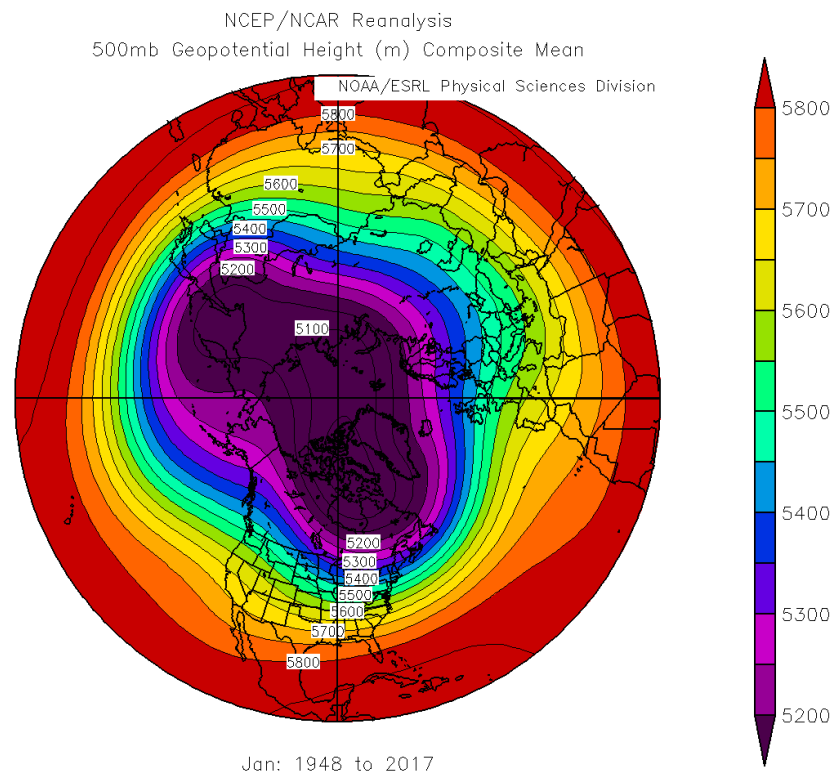


Figure 1: The geopotential height of the 500 hPa constant pressure surface in meters (m) over the northern hemisphere in January. The data is provided by the NCEP reanalysis averaged over the years 1948–2017.