Atm 401-501 **Homework #2** **Thursday 7 February 2019**

Purpose: Revisit the Presidents' Day Storm of 19 Feb 2019 on its 40th Anniversary in Conjunction with the Class Visit of NWS Director Dr. Louis W. Uccellini

Why: Examine the old to better understand the present from which new insights can emerge

Objective: Write an overview paper with a **maximum** of 1000 words (~3 double-spaced pages)

Organization: Work as teams (undergrads as one team, grads as another team)

Materials: Online maps, loops, references, and web links on the class home page

How: Use your "synoptic horse sense," synoptic-dynamic knowledge, weather forecasting skill, analysis ability, and technical skills to answer the below questions. Feel free to improvise.

When: Submit your overview papers on or before Tuesday 19 February 2019

Questions:

1. How did the large-scale NH circulation evolution impact the Presidents' Day storm?
2. What dynamical and thermodynamical processes drove the Presidents' Day storm?
3. What role did upper-level jet streams play in the Presidents' Day storm?
4. What role did the planetary boundary layer play in the Presidents' Day storm?
5. How does the Presidents' Day storm differ from classic East Coast winter storms?
6. Why was the predictability horizon for the Presidents' Day storm < 1–2 days?