

ATMO 352
Severe Weather and Mesoscale Forecasting

Forecast/Weather Discussions
Laboratory Section 502 (Friday)

Each forecasting team below will be responsible for leading the weather discussion for either the DAY-1 or DAY-2 convective outlook during the start of the lab period according to the schedule below. The duration of the team weather discussion for each period should generally be about 10-15 minutes long but will depend on the complexity of the synoptic and mesoscale situation. The weather discussion for the DAY-1 and -2 forecasts will each be limited to a specific geographic area over the contiguous United States that will be provided the night before from Kevin Viner. As in class, we will focus on regional environmental conditions conducive for the development of convective to mesoscale weather phenomena, particularly severe weather (e.g., severe wind, hail and/or tornado).

Each DAY-1 weather discussion should have the following general components: 1) synoptic overview, including summary of the most recent surface and upper air conditions, 2) mesoscale discussion for the chosen region, including overview of ongoing convection or severe weather and convective triggering mechanisms, as applicable, and 3) an overview of important model forecasted conditions during the period, and 4) an assessment of convective and severe weather threat in the chosen area. You are free to use GARP, NSHARP, and/or any internet weather maps/images (e.g., observations and model output data and images) during your forecast discussion.

Each DAY-2 weather discussion should have the following general components: 1) using at least two numerical models (or an ensemble run), key forecasted synoptic (troughs/ridges, vorticity, jet, moisture) and mesoscale (shortwaves, upper-level jet streaks, low-level jet, CAPE, shear etc) conditions for severe weather, 2) discussion of how numerical models are handling the situation through initialization and consistency checks, and 3) assessment of convective and severe weather threat in the chosen area.

The material above must be organized prior to the laboratory period and ready to go. Each team will receive a letter grade for their forecast discussion based on 1) soundness of forecasting/scientific reasoning, 2) completeness, and 3) style (i.e., flow, clarity, effective use of maps etc), in decreasing order of importance. Be sure to incorporate knowledge gained from the class into your discussion. The team grade will count as a “double” lab grade for each individual team member. For preparing the discussion, teams can partition work and responsibility (e.g. generating maps/images for discussion, formulating the discussion and severe weather forecast, oral presentation) in any fashion they see fit. Presentations can be given by one or more members of the team, as long as the discussion flows in a natural and coherent fashion. *Note:* All team members are expected to participate in the team forecast process. If there are issues working within a team, please see Kevin or Dr. Carey immediately to resolve them.

Forecast Discussion Schedule

<i>DATE</i>	<i>DAY-1 FORECAST TEAM</i>	<i>DAY-2 FORECAST TEAM</i>
Friday, 4/13	Stephen Cathey, Lauren Jones, John Kummer, Matthew Raper	Kevin Viner
Friday, 4/20	Jeff Eads, Tony Flores, Bart Gunter, Christopher Martin	Christina Barron, Emily Borchard, Kyoko Miyagawa, Adam Wiley
Friday, 4/27	Kevin Viner	Marilyn Dubinski, Cameron Moore, Amber Stratton