



Weather Maps Analysis Exercise #2

Exercise #2 (12Z 26 MAR 2010): A negatively tilted upper level Trof of Low pressure, and a surface cold front moved across the Pacific Northwest and the Northern Rockies the previous 24-hours. The mountains of NW Wyoming received around 6 inches of snow from this passing system. Using the map set & the single Satellite & Radar Images provided, answer the questions below. We will concentrate on the mountains of NW Wyoming in this exercise, analyzing & forecasting for the next 12 hours based on the info we have on hand.

300mb: Is there Divergence over the area?

Circle the area of cold air aloft at 300mb.

What other weather features are noteworthy on this map?

(...go ahead and mark 'em)

500mb: Is there Divergence nearby?

Is there cold air in place upstream of NW Wyoming?

Is it relatively moist upstream?

(Circle the area of moistest air.)

Where is the air the driest upstream?

(Mark with an X.)

If the Ridge on the coast builds inland the next 12 hours, what will the flow direction be over Western Wyoming?

Will that flow be moister or drier than today?

700mb: What is the flow direction over Western Wyoming?

Is this a good orographic direction for the Tetons?

Highlight the -10°C isotherm.

Is there WAA or CAA or NAA at 700mb today?

Is it moist enough upstream to stay moist over NW Wyoming the next 12-hours?

Give a maximum temperature for the day at 700mb =

Give an average Windspeed & Direction for the day at 700mb=

850mb & Surface Maps: Highlight the 0°C isotherm in red.

What is the general wind flow direction into Western WY near the surface level?

Is there CAA or WAA or NAA at this level?

Is this flow relatively moist or dry?

Is the pressure Rising or Falling the next 24-hours in Western WY?

Bonus Forecast Question: Based on all you can see here, pick a range of snowfall amount for around the 10,000-ft. elevation the next 12 hours? (Circle one!)

Trace to 1"

1" to 3"

3" to 6"

6" to 12"

12" or more