

## Petersen's Forecast for 01/19/06

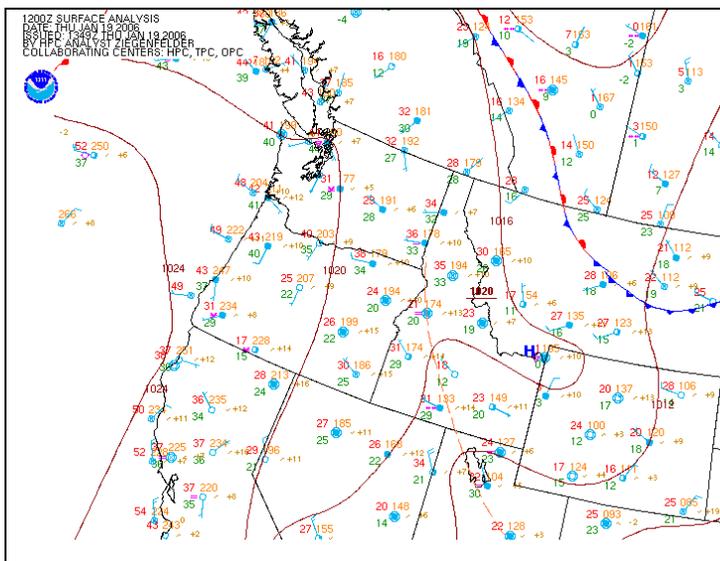
Today is an example of a somewhat promising hang gliding day that could be soar-able at Petersen's.

**General advice:** Look at the wider regional perspective and determine the complexity of the situation. Determine if a definite trend will occur. The simpler the system (less competing factors) the easier it should be to predict. Look at a forecast, if it is promising; corroborate that with real time observations.

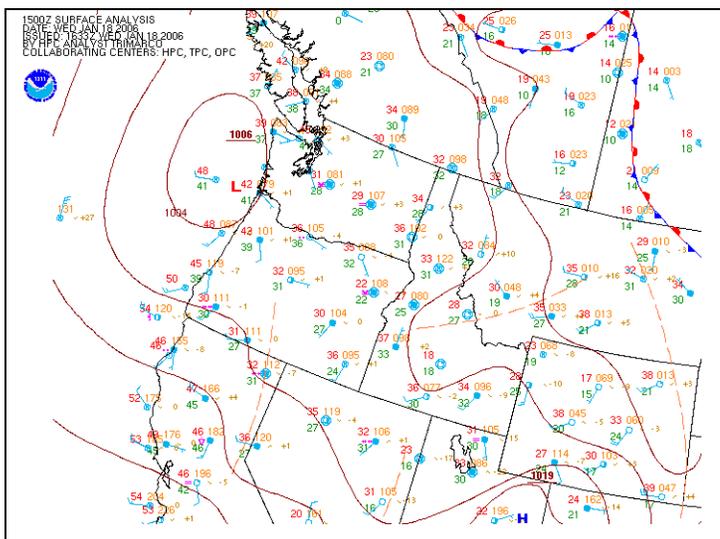
### Site Requirements for Petersen's

When there is a .03 pressure difference (.04 is too strong, .02 is too light) between Eugene and Salem and the wind is S-SW, and the Corvallis and Salem Airports are showing at least 7 kts but not more than 12 kts, and there are no major rain blobs on radar coming that way, then it will probably be soarable.

Here is the big picture....a low pressure area is developing near the Oregon Washington border from 5:00 am to 3:00 pm. The questions are - will the rain associated with low to the north negatively impact Petersen's to the south and will wind get strong enough to be soar-able at Petersen's?

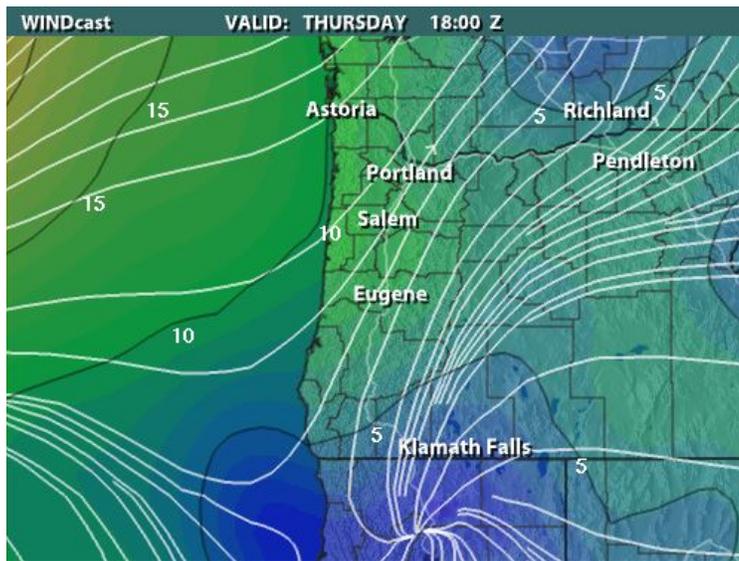


10:00 am Observation - A moderate sized low pressure trough extends out into the pacific directly west of the border with WA and OR. A large high is dominant in the southwest. In the Southern Willamette valley, the isobars are widely spaced and pressure gradient is .03.

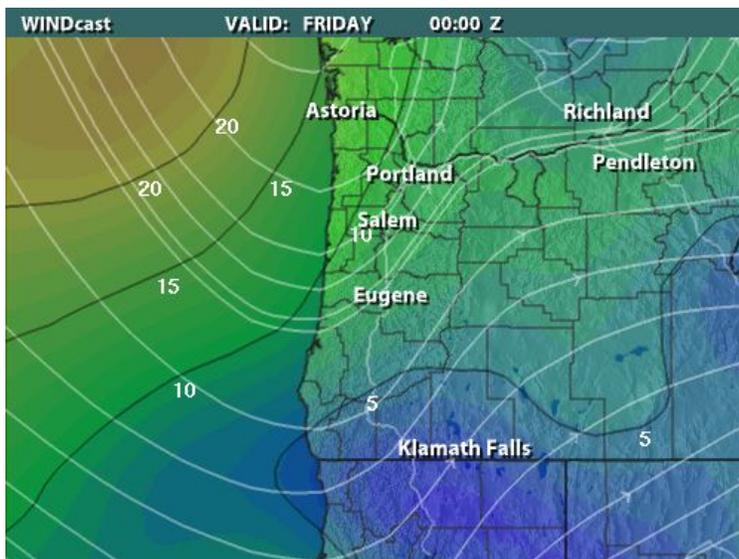


4:00 pm Forecast - the trough has formed into a closed depression (a low). The isobars have become closer together at sea, but remain widely spaced in the Willamette Valley.

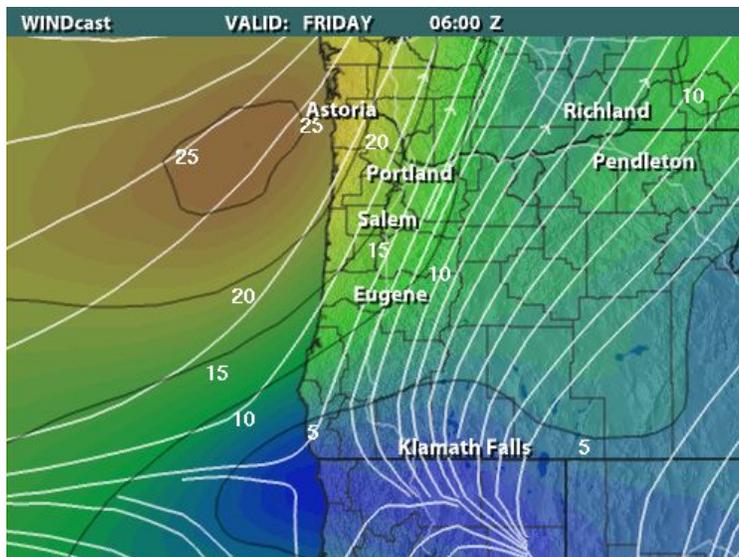
10:00 am graphical wind forecast



4:00 pm graphical wind forecast – the low northwest of Portland is developing



Thursday 10 pm graphical wind forecast - the low is fully developed and enlarged over the region.



**NOAA text forecast -**

SOUTH WILLAMETTE VALLEY-  
INCLUDING THE CITIES OF...CORVALLIS...ALBANY...EUGENE...SPRINGFIELD  
400 AM PST THU JAN 19 2006

.TODAY...MOSTLY CLOUDY WITH A CHANCE OF SHOWERS. HIGHS AROUND 45.  
SOUTH WIND 5 TO 15 MPH.  
.TONIGHT...CHANCE OF SHOWERS IN THE EVENING THEN RAIN LIKELY LATE.  
LOWS AROUND 40. SOUTH WIND 5 TO 15 MPH.

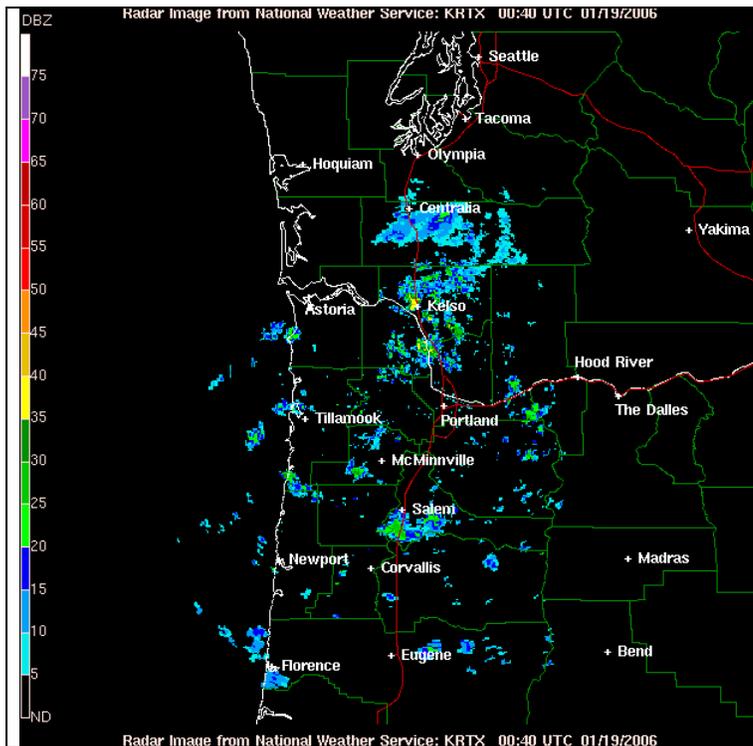
Note no significant change in wind strength (consider the isobars changes or lack thereof)

**1600 Z Airport Observations**

ASTORIA	MOCLDY	42	43	100	S5	30.16S
NEWPORT	DRIZZLE	45	43	93	E3	30.24R
PORTLAND	MOCLDY	44	41	89	S5	30.20R
VANCOUVER WA	CLOUDY	43	41	93	CALM	30.19R
SCAPPOOSE	CLOUDY	39	37	94	CALM	30.18R
HILLSBORO	CLOUDY	40	39	97	NW3	30.20R
AURORA	CLOUDY	43	41	93	S9	30.21R
MCMINNVILLE	CLOUDY	43	41	93	CALM	30.21R
SALEM	CLOUDY	43	39	86	S12	30.20R
CORVALLIS	MOCLDY	45	39	81	S8	30.21S
EUGENE	CLOUDY	42	39	89	SE6	30.23R

Note – the .03 pressure difference between Salem and Eugene, rising pressure and wind speed and direction.

**NOAA Radar**



Typical scattered showers to the south of Petersens. However, for the most part, it shows lots of windows for flying.

8:02 am

Using the telephone AWOS

503-371-1062 Salem AWOS 156 z 150 at 11 kts 3020 alt  
 541-754-0081 Corvallis AWOS 1566 Z 160 at 7 kts 3022 alt  
 541-461-3114 Eugene AWOS 156 Z 120 at 06 kts 3024 alt

The pressure gradient has increased to blown out (.04) difference.

9:00 am

Using the internet AWOS

SALEM	LGT RAIN	43	39	87	S10	30.21R
CORVALLIS	MOCLDY	45	39	81	S9	30.22R
EUGENE	CLOUDY	42	40	92	SE7	30.24 R

The pressure gradient has decreased to a soar-able (.03) difference. And the pressure is rising.

Looking south on I-5

**I-5 at Salem - Exit 258 (2)**  
 Updated: Jan 19 2006 09:11:13 AM Looking South



ODOT  
 Elevation 170 TripCheck.com Milepost 258.00

Shows low gray clouds and mist in the background. But the roads are dry.

Looking out my south window

Clouds are at 1000 feet with one brief sun break. Some drizzle. My "indicator trees" show light sway near the top.

Latest Hourly forecast calls for low probability of precipitation 30%

10am		Few Showers <b>45°F</b>	<b>42°F</b>	<b>30%</b>	42°F	93%	From SSW 5 mph
11am		Few Showers <b>45°F</b>	<b>42°F</b>	<b>30%</b>	43°F	93%	From SSW 6 mph
12pm		Few Showers <b>46°F</b>	<b>43°F</b>	<b>30%</b>	42°F	89%	From SSW 6 mph
1pm		Few Showers <b>47°F</b>	<b>44°F</b>	<b>30%</b>	42°F	86%	From SSW 7 mph
2pm		Few Showers <b>47°F</b>	<b>44°F</b>	<b>30%</b>	42°F	83%	From SSW 7 mph
3pm		Few Showers <b>47°F</b>	<b>44°F</b>	<b>30%</b>	41°F	80%	From SSW 7 mph

### **9:30 am**

Driving up to hospital hill, a nearby overlook of the valley with a view of Petersen's, I see that it is shrouded in a cloud midway to launch. However, sun breaks can be seen to the southeast and south. Since the barometer is rising, and there isn't any obvious downpours, this cloud will probably dissipate in the rising sun. The decision to commit to a drive is reasonable.

### **10:30 am**

Arriving at Petersen's, we are met with 19-23 mph SW wind and a cloud base 200 feet below the peak. This base rose to low clouds (1200 ft) covering most of the sky by 11:00 am. We set-up and soared for 30 minutes before a very light, broad and misty squall moves in. We land on top and wait out the squall. It lasts 30 minutes but it hardly rains – it mostly mists. Another window occurs with another misty squall some 4 miles away. We fly again for 20 minutes and land on top again. By 2:00 pm another window opens up and lasts another two hours. The wind has not diminished in the least. By 4:00 pm, the ceiling lowers and more precipitation is apparent all over the valley.

### **Conclusion**

Rising cloud base and opening up of the sky was consistent with increasing pressures early. The barometer rose from .19 to .25 from 6:00 am to 11:00 am. From 12:00 noon onward, the increasing trend in the rain and consistent wind was in line with forecasts (besides weather channel showers probabilities - but you could argue we were not showered on, just misted) and decreasing pressure – from .25 to .19. The .03 pressure gradient was consistent throughout these changes. Again, this foretold the right wind intensity for soaring. Since this was not a post frontal day – the moisture and consistent wind we experienced fed the newly forming low in the northwest – there was lots of water vapor in the air, with decreased visibility, and lowered cloud-base, but the rain was very light. Still, one had to be ready to land in-between squalls, wait them out, and then fly in another window. Post frontal days usually have more distinct and defined squalls with higher cloud bases.

Recognizing trends is an important skill to develop in prediction. Knowing when to cut your losses when the weather continues to throw obstacles is important when you know the trend is worsening. But on the flip side, patience is important when you know the trend could be improving. But either decision must be based on the bigger picture. On this day, the strengthening low was far enough away from us to get some airtime early. But it also provided some windows with those with determination later in the afternoon.