

Making Wx decisions in Winter

- Why Winter weather is different
- Show you what web info to use
- What web info to be cautious using
- How to evaluate risks
- When to just say no

Agenda

- High and Low Pressure Systems
- Long Range Wx models – GFS
- Short Range Wx tools – LAMP
- Q & A

WHY WEATHER

- #1 Pilot Killer
- Know the least about it
- The best sources of information are changing rapidly with Web based tools
- You shouldn't be surprised by what you see through the windscreen

ARE THESE YOUR PRIMARY TOOLS?

NWS Boise, ID
Point Forecast: Boise ID
43.62°N 116.22°W (Elev. 2709 ft)
Forecast Valid: 9pm MST Mar 8, 2011-6pm MDT Mar 15, 2011

Mobile Weather Information | En Español
Last Update: 2:59 pm MST Mar 8, 2011

Forecast at a Glance

Tonight	Wednesday	Wednesday Night	Thursday	Thursday Night	Friday	Friday Night	Saturday	Saturday Night
								
60% Rain/Snow Likely Lo 35 °F	30% Chance Rain Hi 55 °F	Mostly Cloudy Lo 43 °F	60% Showers Likely Hi 58 °F	60% Showers Likely Lo 34 °F	Partly Sunny Hi 50 °F	Mostly Cloudy Lo 36 °F	20% Slight Chc Showers Hi 55 °F	30% Chance Showers Lo 36 °F

Detailed 7-day Forecast

Tonight: A chance of rain and snow before 11pm, then rain likely. Snow level rising to 3400 feet. Mostly cloudy, with a low around 35. East southeast wind between 9 and 11 mph. Chance of precipitation is 60%. Little or no snow accumulation expected.

Wednesday: A 30 percent chance of rain. Mostly cloudy, with a high near 55. Southeast wind between 8 and 11 mph, with gusts as high as 22 mph.

Detailed Point Forecast

Click Map for Forecast [Disclaimer](#)

Map

THE CWA FORECAST IS ONLY
FORECAST 72 HOURS FORWARD

A TAF IS ONLY ACCURATE
WITHIN 5NM OF THE TAF
STATION. IT IS A POINT
FORECAST

National Weather Service Forecast Office Boise, ID

Home News Organization Frequently Asked Questions

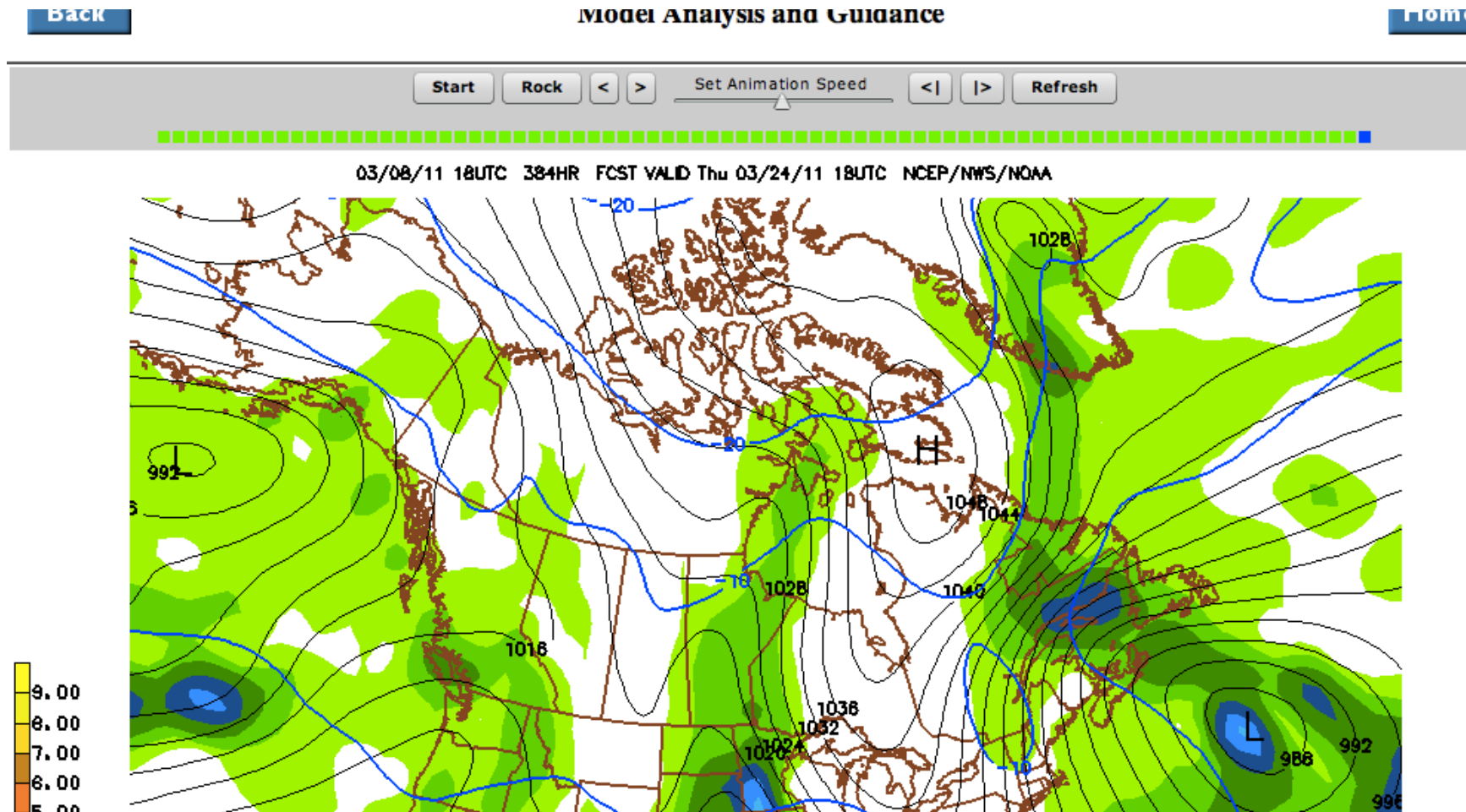
Printer Friendly | Go Back | Version: Current 1 2 3 4 5 6 7 8 9 10 | Font: A A

TERMINAL AERODROME FORECAST *

FTUS45 KBOI 082300
TAFBOI
TAF
KBOI 082329Z 0900/0924 12011KT P6SM VCSH SCT025 BKN040
FM091000 13009KT 4SM -SHSN BKN025 OVC040
FM091900 14009KT P6SM VCSH SCT035 BKN070
FM092100 12009KT P6SM SCT100=

Webmaster

THIS IS BETTER...

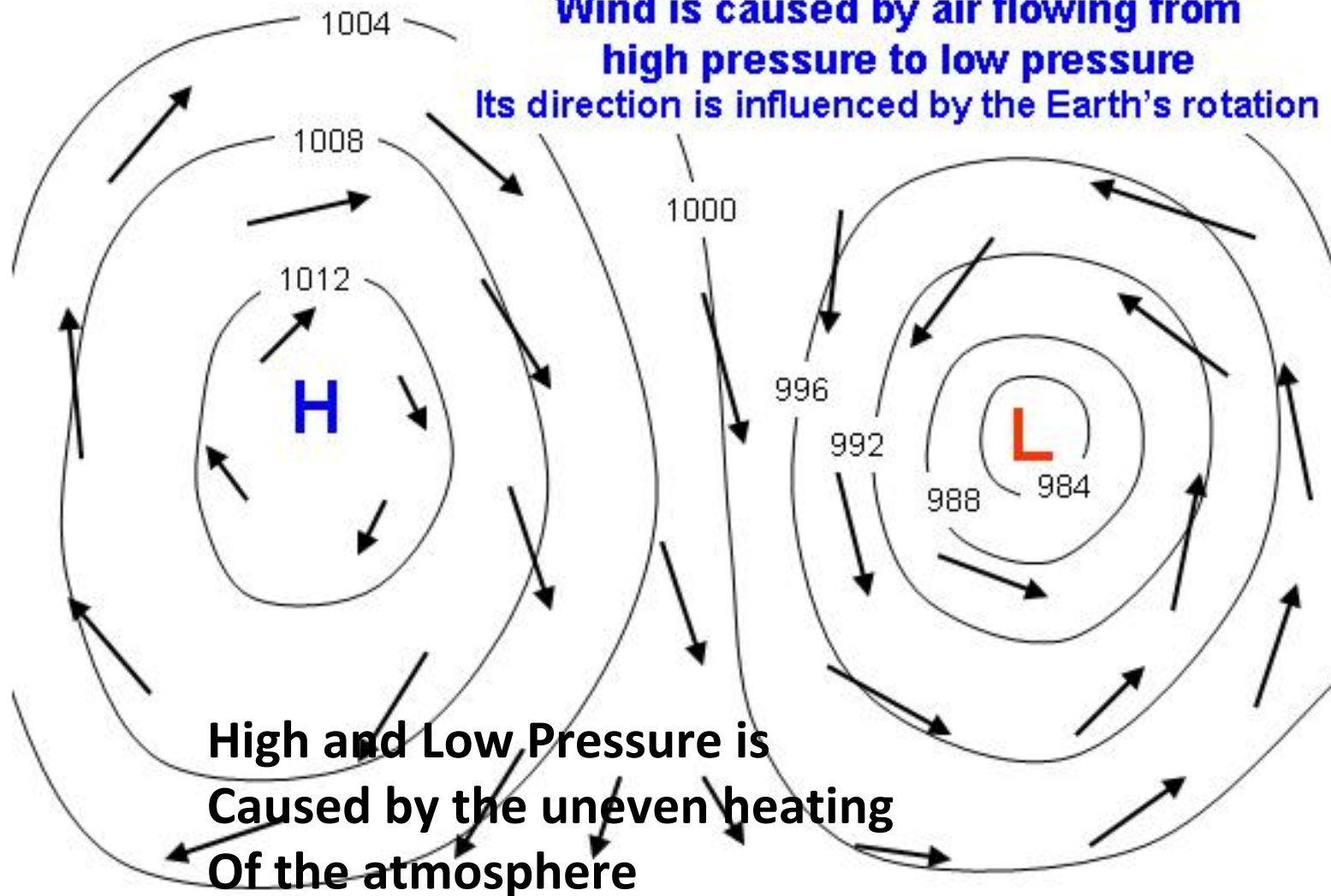


BUT FIRST, A FEW BASICS...

Low Pressure

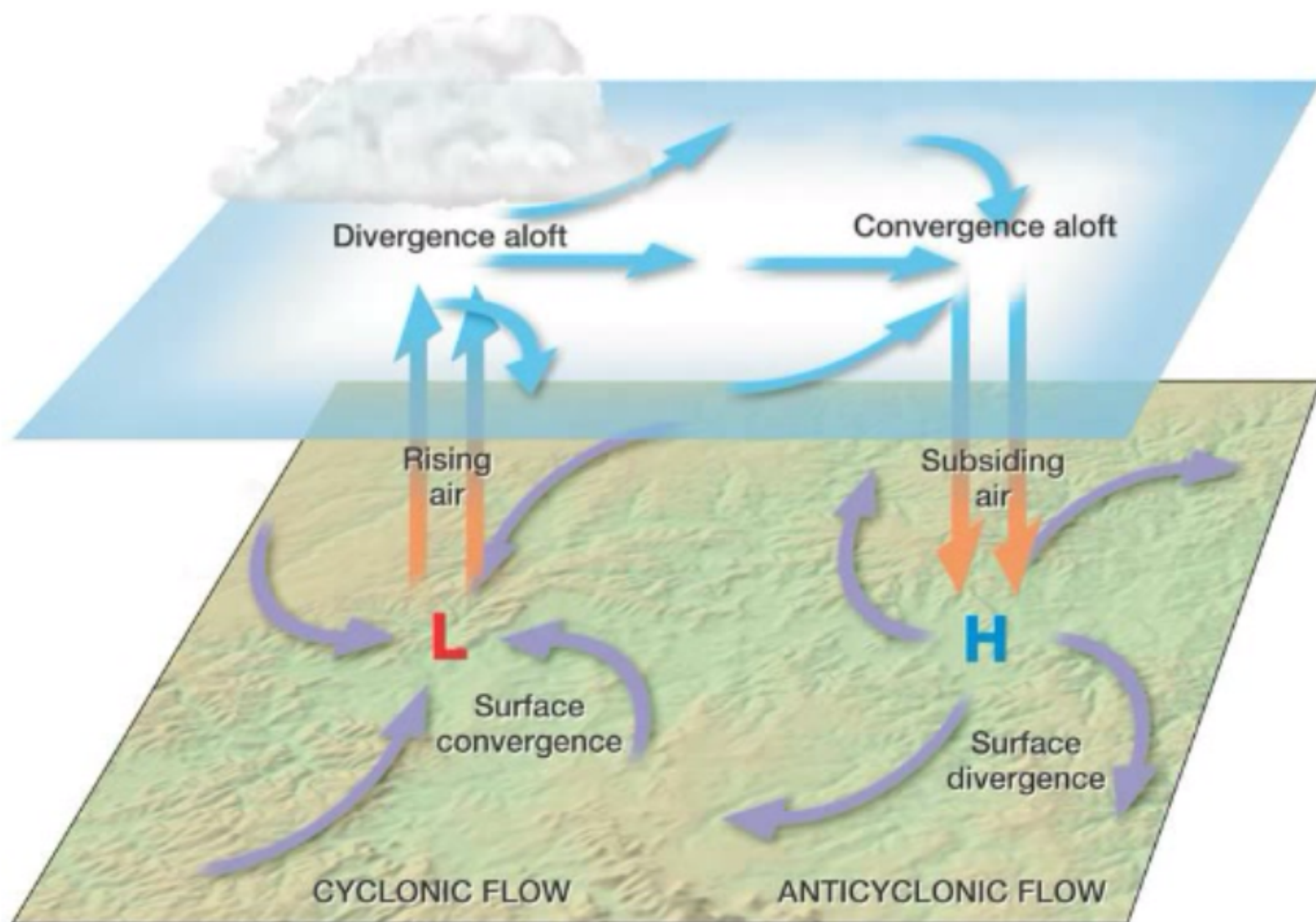
- Low pressure = warm air rising
- Circulates counter-clockwise
- Winds are much stronger than a HIGH
- Warm air ahead of the front, cold air behind
- Circulates cold air from North, warm air from South
- Humidity increases and dew point spread decreases on backside of low
- Trough vs full blown LOW

**Wind is caused by air flowing from
high pressure to low pressure
Its direction is influenced by the Earth's rotation**

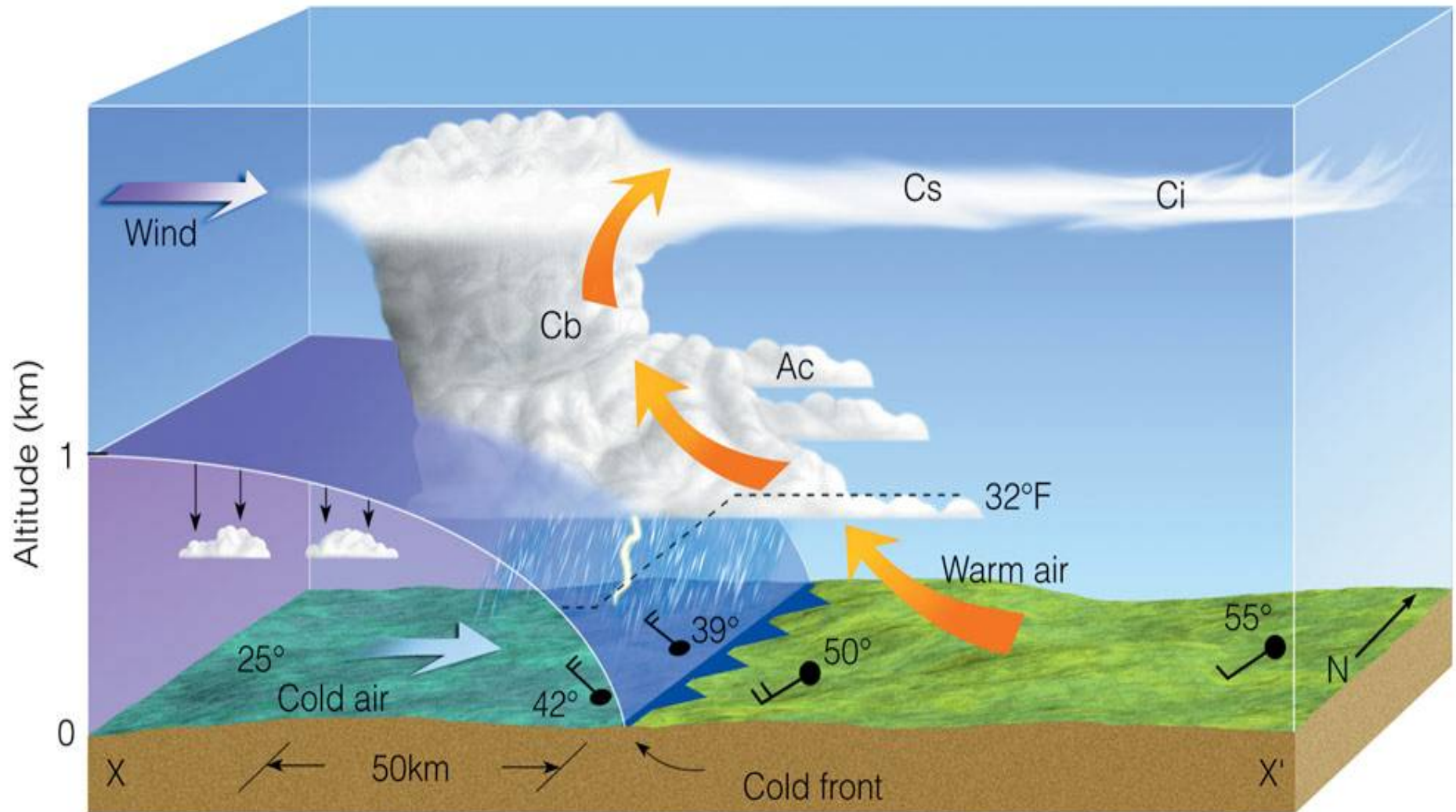




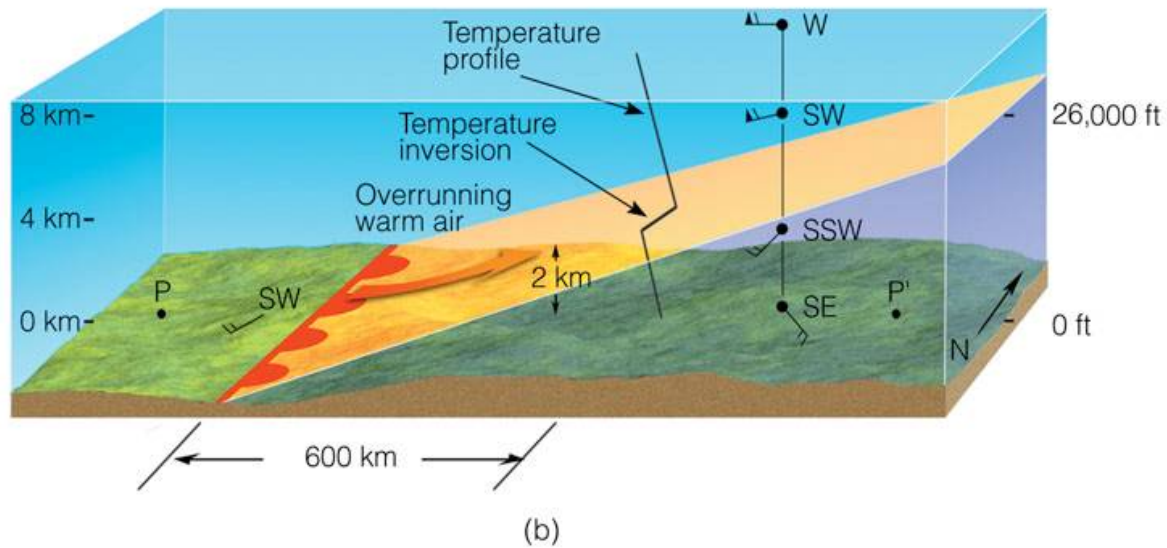
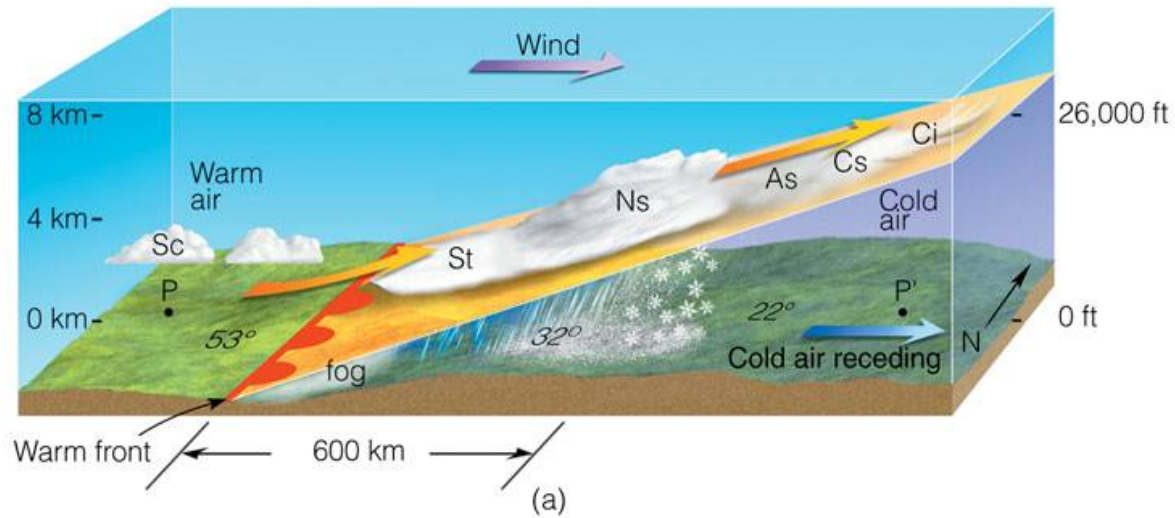
High and Low Pressure Systems



Cold Front



Warm Front (slow moving)



A Serious LOW





12 hours after trough passing

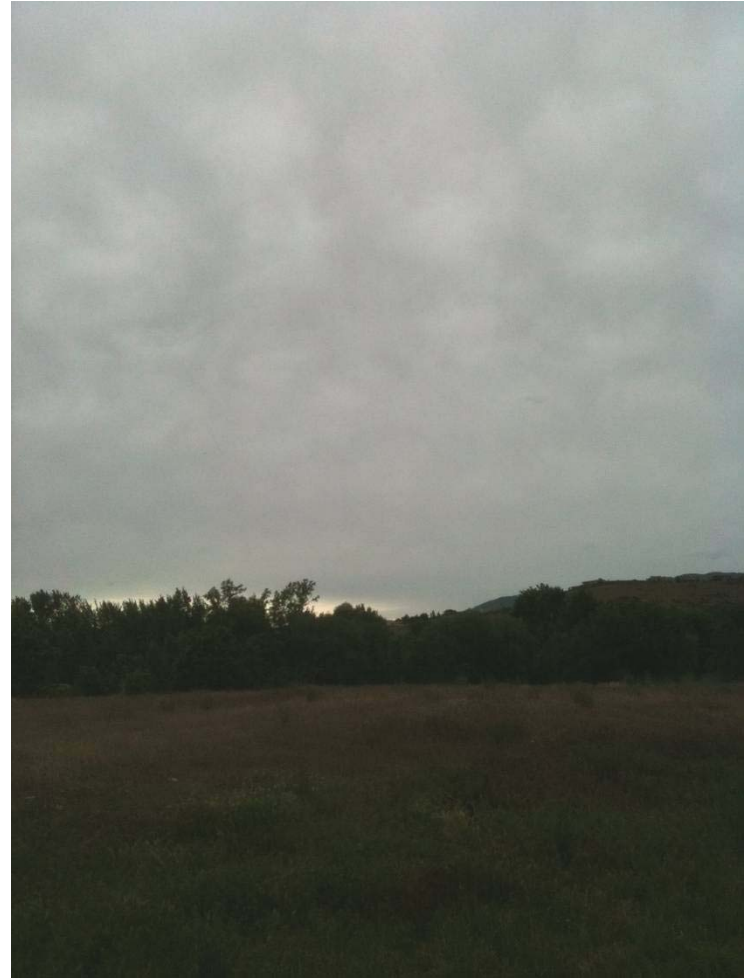


12 hours before incoming LOW

Incoming Low Pressure System



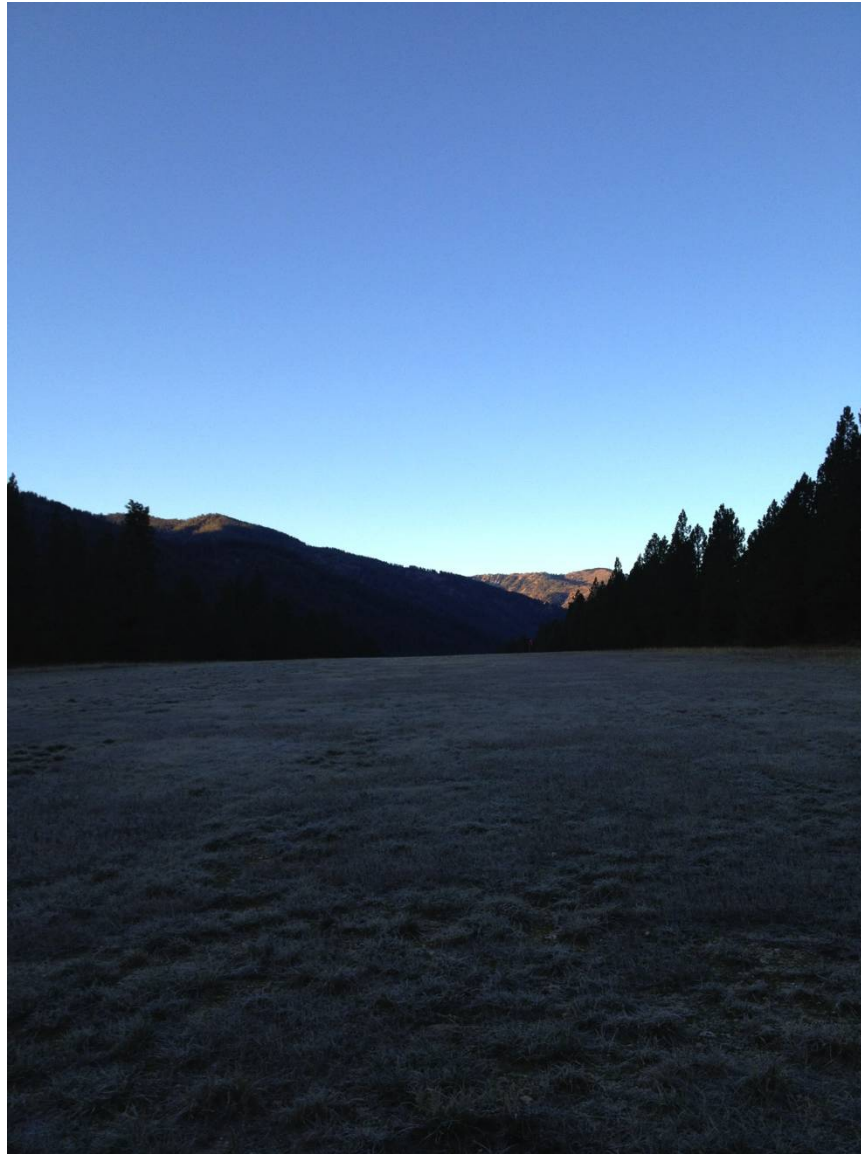
10am



6pm
(light rain 2 hours later)

High Pressure

- Cold air descending – pancakes on land
- Holds warm air, (or cold air), against ground – creates stability
- In the winter causes inversions with fog
- Circulates clockwise
- Winds are light
- Usually found over water – cooler air sinks
- Ridge vs full blown HIGH



18 hours – Ridge rebuilding



About v2.2.3

[Intro Video](#)

[Classic AOPA Weather](#)

HELP

View Weather for: **Airport/Station IDs** **KMAN KBOI KCOE** → Go

METAR

TAF

Area (FA) - MTN

Area (FA) - Far West

FAUS45 KPCI 281145

FA5W

SLCC FA 281145

SYNOPSIS AND VFR CLDS/WX

SYNOPSIS VALID UNTIL 290600

CLDS/WX VALID UNTIL 290000...OTLK VALID 290000-290600

ID MT WY NV UT CO AZ NM

SEE AIRMET SIERRA FOR IFR CONDS AND MTN OBSCN.

TS IMPLY SEV OR GTR TURB SEV ICE LLWS AND IFR CONDS.

NON MSL HGTS DENOTED BY AGL OR CIG.

More Charts

Continental US

Current Conditions

- ☒ Radar
- ☒ Satellite
- ☒ Surface
- ☒ Upper Air
- ☒ Doppler

Forecasts

- ☒ ADDS Prog
- ☒ New Prog (NEXRAD)
- ☒ AIRMETs
- ☒ SIGMETs
- ☒ Convective Outlook
- ☒ Ceiling/Vis/SFC Wind
- ☒ Precip/SLP

US Regions

- ☒ Alaska
- ☒ Mexico
- ☒ Western Atlantic
- ☒ Eastern Pacific

About This Chart

US Radar

Prog

AIRMETs

Precip/SLP

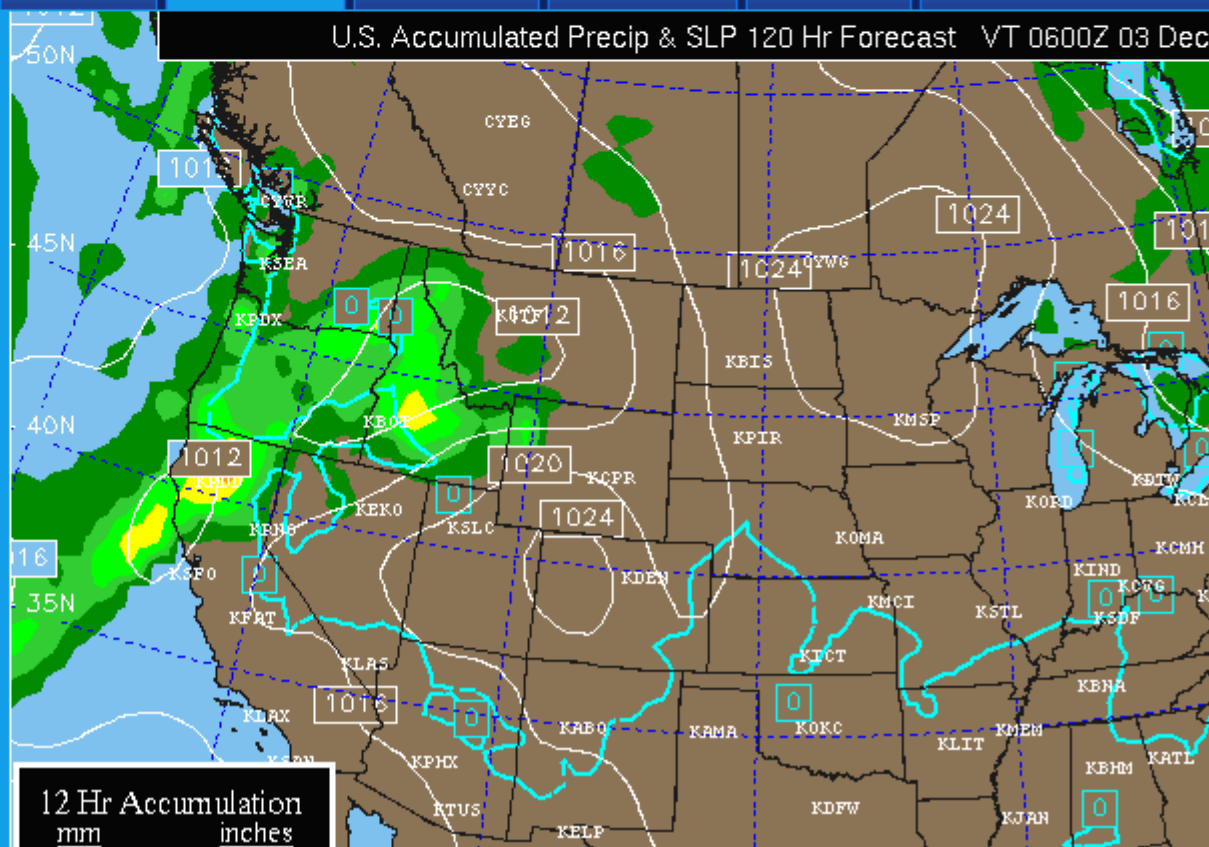
ADDS Prog

US Satellite

Upper Air

Ceiling/Vis/SFC Wind

U.S. Accumulated Precip & SLP 120 Hr Forecast VT 0600Z 03 Dec



Enter location ... ZOA CWSU *mobile*
CWSU METAR Map

CWSU National Map

EXPERIMENTAL: Sector PIREP Maps

- Aviation GRAPHICs
- Aviation TEXT
- Quicklook HAZARDS
- FAA NAS Status
- AFD map
- Satellite
- RADAR
- FL Winds
- Ocean SIGMETs
- Models
- Climate

Projects

ZOA Research

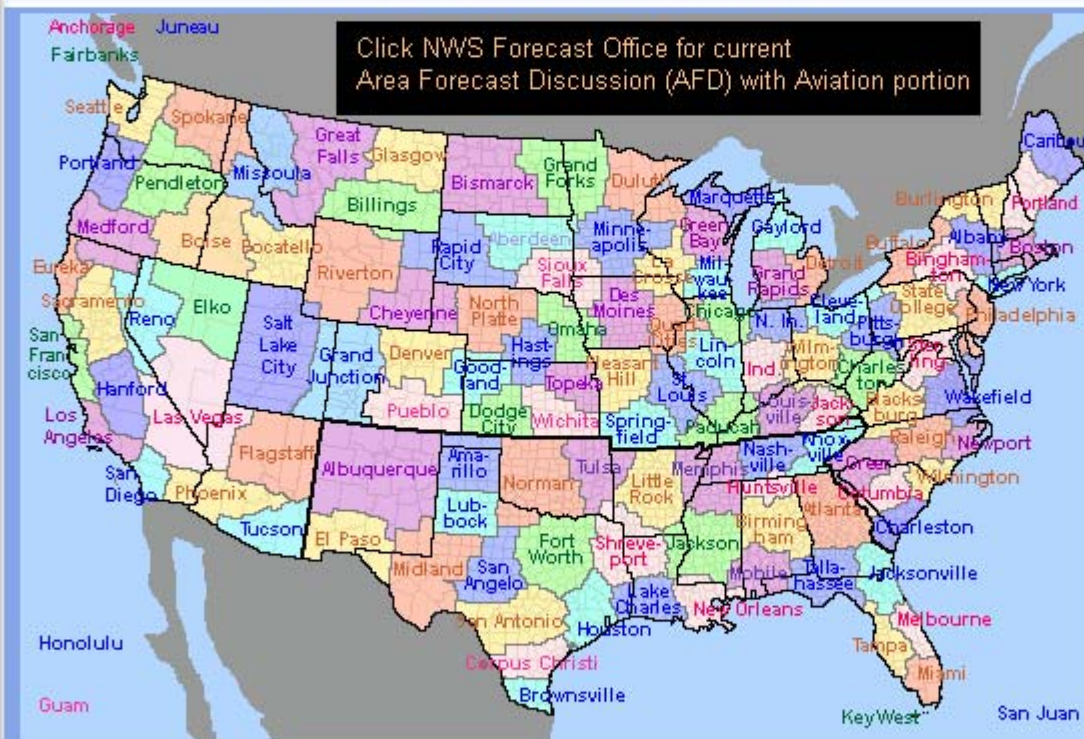
Links

Employment

Contact ZOA CWSU:

Feedback
Our CWSU

Click NWS Forecast Office for current
Area Forecast Discussion (AFD) with Aviation portion



308 PM MST TUE NOV 30 2010

.SHORT TERM...WINTER STORM PASS
FROM THE WEST-NORTHWEST TONIGHT
PROGS SUPPORT UPGRADE OF WINTER
FOR HEAVY SNOW IN ZONES LISTED
TOTAL SNOW ACCUMULATION FOR THE
WEDNESDAY MORNING...4 INCHES IN
IN THE REST OF THE UPPER TREASU
TEMPS TONIGHT THROUGH WEDNESDAY
VALLEY FLOORS WEDNESDAY MORNING
TO RAIN BELOW 3500 FEET MID-MOR
FOR MORNING COMMUTING PERIOD. T
ALONG THE IDAHO/NEVADA BORDER W
THURSDAY BRINGING MORE RAIN AND
GENERALLY RAIN BUT NRN MOUNTAIN
SNOW EVENTUALLY ADDING UP TO A
FOR MORE INFO ON THIS.

...LONG TERM...THURSDAY NIGHT THE
ALOFT AHEAD OF AN UPPER TROUGH
BRING SIGNIFICANT MOISTURE AND
SW IDAHO THROUGH FRIDAY. THE LO
AND SNOW EARLY THURSDAY BECOMING
SNOW LEVEL AROUND 4000-4500 FT.
OWYHEE...BOISE...AND WEST CENTR
AN ADDITIONAL 12 TO 18 INCHES O
MOUNTAIN VALLEYS WILL AVERAGE 4
UPPER TROUGH WILL FINALLY TRAVE
FRIDAY NIGHT THROUGH SATURDAY M

Area Forecast

The screenshot shows a web browser window titled "National Weather Service - Boise, ID - Windows Internet Explorer". The address bar displays the URL: http://www.wrh.noaa.gov/total_forecast/getprod.php?sid=W8pil=FA58wfo=boi. The browser's menu bar includes File, Edit, View, Favorites, Tools, and Help. The Favorites bar shows several bookmarks, including "7-D...", "Avi...", "AvW...", "Bu...", "Cha...", "Cli...", "Ida...", "Ida...", "Ktv...", "Mod...", "Mon...", "Nav...", "NOA...", "NWS...", "Sch...", "Wol...", "Rea...", and "7-D...". The main content area displays a forecast for Boise, ID, with a left sidebar menu and a main text area.

Cameras
Idaho Road Report
River & Lake AHPS

Forecasts
Activity Planner
Local Forecasts
Forecast Discussion
National Forecasts
Aviation
Fire Weather
Hydrology
Forecast Weather
Tables

Climate
Local
National
More...

Weather Safety
Weather Radio
Lightning
Weather Awareness

Skywarn™
Storm Ready

Misc Links
Astronomical Data
Emergency Mgmt.
Environ/Air Quality
Information
Web page tutorial
Other Office links
Our Office
Contact Us
Webmaster

Forecast for Boise, ID (KBOI) valid until 010000Z. OLR valid 010000Z.

ID MT WY NV UT CO AZ NM

SEE AIRMET SIERRA FOR IFR CONDS AND MTN OBSCN.
TS IMPLY SEV OR GTR TURB SEV ICE LLWS AND IFR CONDS.
NON MSL HGTS DENOTED BY AGL OR CIG.

SYNOPSIS...ALF..A FEW MID LVL IMPULSES WILL CONT ACRS NWRN US-
NRN/N CNTRL ROCKIES THRU PD. OTRW..ZONAL FLOW WILL BECM MORE DMNT
THRU RGN DURG OTLK. NW FLOW ERN PTN..WLY FLOW WRN PTN. SFC..TROF
NRN FRONT RANGE WILL BECM WRM FNT 03-06Z AND APCH ERN MT DURG
OTLK. TROP ERN NM THRU PD. OCLD/CLD FNT WA CSTN WILL APCH CNTRL
WA-NWRN OR-NRN CA CSTL WTRS 12-15Z. HI PRES RMNDR.

ID
NRN...OVC040-060 LYRD FL260. OCNL VIS 3-5SM BR. WDLY SCT/SCT
-SHSN. OTLK...MVFR CIG SHSN BR.
CNTRL MTNS...BKN-OVC080-100 LYRD FL240. OCNL VIS 3-5SM BR. WDLY
SCT -SHSN. OTLK...MVFR CIG SHSN BR.
SWRN...BKN-OVC060-080 LYRD FL240. OCNL VIS 3-5SM BR. WDLY SCT
-SHSN. OTLK...MVFR CIG SHSN BR.
SERN...SCT-BKN080 BKN120 LYRD FL260. ISOL -SN. BECMG 2302 BKN060-
080 BKN-OVC100. OCNL VIS 3-5SM BR. ISOL -SHSN. OTLK...MVFR
CIG SHSN BR.

MT
CONTDWD WWD...BKN080-100 TOPS FL180. ISOL -SN. BECMG 2301 BKN060-
080 TOPS 160. ISOL -SN. OTLK...MVFR CIG SHSN BR.
SWRN MTNS...BKN070-090 LYRD FL220. ISOL -SHSN. BECMG 0003 BKN060-
080. OCNL VIS 3-5SM BR. ISOL -SHSN. OTLK...MVFR CIG SHSN BR.
ERN SLOPES OF CONTDWD...BKN100-120 TOPS FL180. WND SW G25KT.
BECMG 2301 BKN080-100 LYRD FL220. ISOL -SN. AFT 06Z OCNL VIS
3-5SM BR. OTLK...VFR.
CNTRL...SCT-BKN100 TOPS 160. BECMG 0103 BKN080-100 LYRD FL220.
OCNL ISOL -SN. OTLK...VFR.
ERN...SCT150 SCT CI. BECMG 0103 BKN120 LYRD FL240. AFT 05Z OCNL
VIS 3-5SM BR. OTLK...VFR.

WY
MTNS AND WEST...SCT100-120 BKN CI. BECMG 0003 SCT-BKN090-100 TOPS
160. ISOL -SN. AFT 06Z OCNL VIS 3-5SM BR. OTLK...VFR.
ERN PLAINS-FOOTHILLS SCT150 BKN CI. WND SW 25G30KT BECMG 0103

7.1.1.1.1 Height Reference

All heights are referenced to Mean Sea Level (MSL) except when prefaced by AGL, CIG or CEILING. Tops are always referenced to MSL.

Valley vs Mountain



06/17/2010 11:45

http://www.cityofboise.org/Departments/Public_Works/Services/AirQuality/page10796.aspx



06/17/2010 08:00:00 AM

<http://www.flyingresorttranches.com/>



May Marina, McCall, Idaho

Jun 16 Wed 08:48 am

<http://www.idahohotsprings.com/infocenter/webcams.htm>



<http://www.pilotcams.org/northwest-us-webcams/48-smiley-creek-id-u87>

Verify with webcams



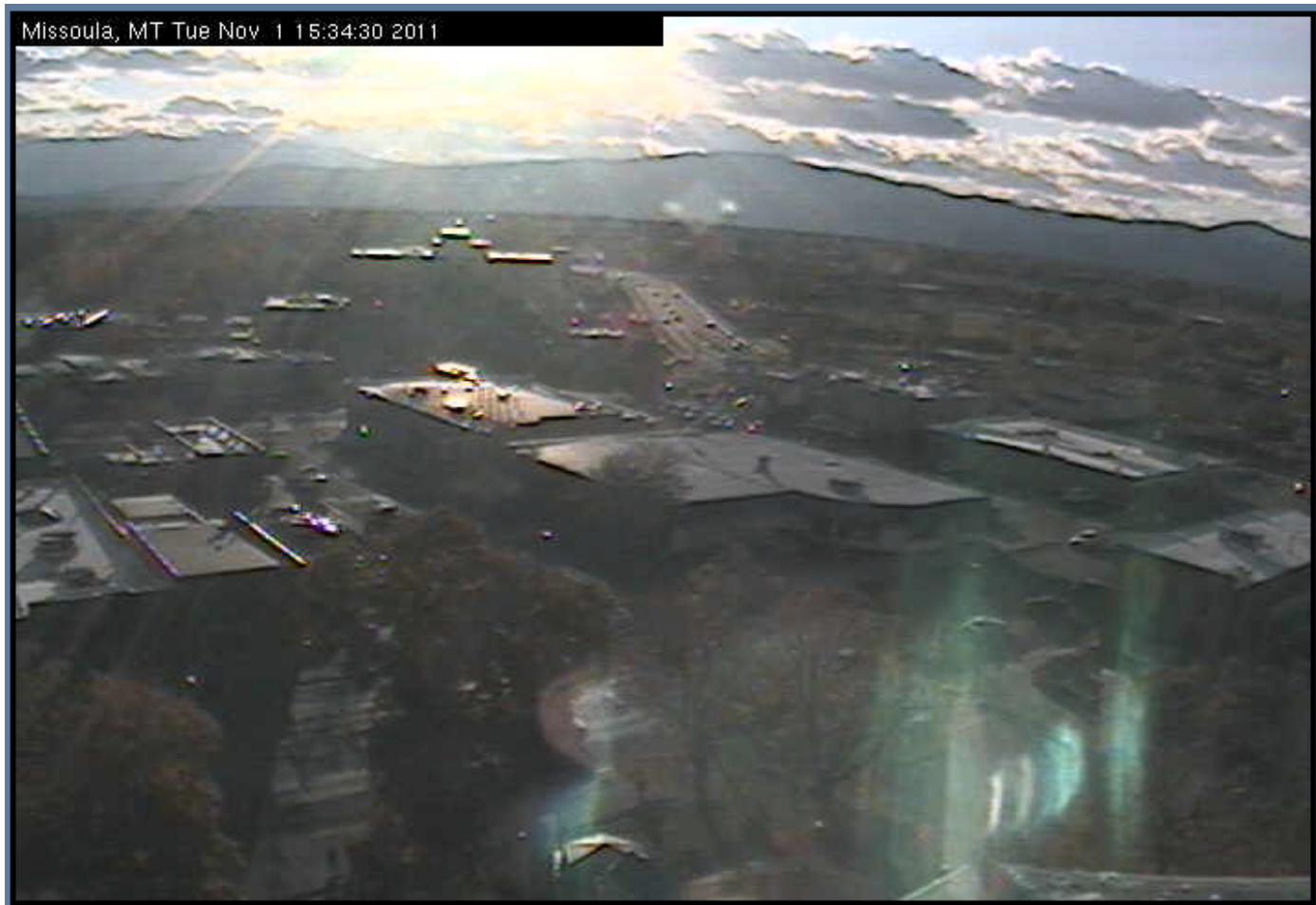
Verify with webcams

Date/Time: 11/01/2011 14:28

▶ Loop



Verify with webcams



Area Forecast

The screenshot shows a web browser window titled "National Weather Service - Boise, ID - Windows Internet Explorer". The address bar displays the URL: http://www.wrh.noaa.gov/total_forecast/getprod.php?sid=W8pil=FA58wfo=boi. The browser's menu bar includes File, Edit, View, Favorites, Tools, and Help. The Favorites bar shows several icons, including "7-D...", "Avi...", "AvW...", "Bu...", "Cha...", "Cli...", "Ida...", "Ida...", "Ktv...", "Mod...", "Mon...", "Nav...", "NOA...", "NWS...", "Sch...", "Wol...", "Rea...", and "7-D...". The main content area displays a forecast for Boise, ID, with a left sidebar menu and a main text area.

Cameras
Idaho Road Report
River & Lake AHPS

Forecasts
Activity Planner
Local Forecasts
Forecast Discussion
National Forecasts
Aviation
Fire Weather
Hydrology
Forecast Weather
Tables

Climate
Local
National
More...

Weather Safety
Weather Radio
Lightning
Weather Awareness

Skywarn™
Storm Ready

Misc Links
Astronomical Data
Emergency Mgmt.
Environ/Air Quality
Information
Web page tutorial
Other Office links
Our Office
Contact Us
Webmaster

Forecast for Boise, ID
ID MT WY NV UT CO AZ NM
.
SEE AIRMET SIERRA FOR IFR CONDS AND MTN OBSCN.
TS IMPLY SEV OR GTR TURB SEV ICE LLWS AND IFR CONDS.
NON MSL HGTS DENOTED BY AGL OR CIG.
.
SYNOPSIS...ALF..A FEW MID LVL IMPULSES WILL CONT ACRS NWRN US-
NRN/N CNTRL ROCKIES THRU PD. OTRW..ZONAL FLOW WILL BECM MORE DMNT
THRUT RGN DURG OTLK. NW FLOW ERN PTN..WLY FLOW WRN PTN. SFC..TROF
NRN FRONT RANGE WILL BECM WRM FNT 03-06Z AND APCH ERN MT DURG
OTLK. TROP ERN NM THRU PD. OCLD/CLD FNT WA CSTN WILL APCH CNTRL
WA-NWRN OR-NRN CA CSTL WTRS 12-15Z. HI PRES RMNDR.
.
ID
NRN...OVC040-060 LYRD FL260. OCNL VIS 3-5SM BR. WDLY SCT/SCT
-SHSN. OTLK...MVFR CIG SHSN BR.
CNTRL MTNS...BKN-OVC080-100 LYRD FL240. OCNL VIS 3-5SM BR. WDLY
SCT -SHSN. OTLK...MVFR CIG SHSN BR.
SWRN...BKN-OVC060-080 LYRD FL240. OCNL VIS 3-5SM BR. WDLY SCT
-SHSN. OTLK...MVFR CIG SHSN BR.
SERN...SCT-BKN080 BKN120 LYRD FL260. ISOL -SN. BECMG 2302 BKN060-
080 BKN-OVC100. OCNL VIS 3-5SM BR. ISOL -SHSN. OTLK...MVFR
CIG SHSN BR.
.
MT
CONTDWD WWD...BKN080-100 TOPS FL180. ISOL -SN. BECMG 2301 BKN060-
080 TOPS 160. ISOL -SN. OTLK...MVFR CIG SHSN BR.
SWRN MTNS...BKN070-090 LYRD FL220. ISOL -SHSN. BECMG 0003 BKN060-
080. OCNL VIS 3-5SM BR. ISOL -SHSN. OTLK...MVFR CIG SHSN BR.
ERN SLOPES OF CONTDWD...BKN100-120 TOPS FL180. WND SW G25KT.
BECMG 2301 BKN080-100 LYRD FL220. ISOL -SN. AFT 06Z OCNL VIS
3-5SM BR. OTLK...VFR.
CNTRL...SCT-BKN100 TOPS 160. BECMG 0103 BKN080-100 LYRD FL220.
OCNL ISOL -SN. OTLK...VFR.
ERN...SCT150 SCT CI. BECMG 0103 BKN120 LYRD FL240. AFT 05Z OCNL
VIS 3-5SM BR. OTLK...VFR.
.
WY
MTNS AND WEST...SCT100-120 BKN CI. BECMG 0003 SCT-BKN090-100 TOPS
160. ISOL -SN. AFT 06Z OCNL VIS 3-5SM BR. OTLK...VFR.
ERN PLAINS-FOOTHILLS SCT150 BKN CI. WND SW 25G30KT BECMG 0103

7.1.1.1.1 Height Reference

All heights are referenced to Mean Sea Level (MSL) except when prefaced by AGL, CIG or CEILING. Tops are always referenced to MSL.