#### WHY WEATHER

- #1 Pilot Killer
- Least training highest impact
- We fly "weather susceptible" aircraft
- Tools are quickly changing and improving
- You should no longer be surprised by what you see through the windscreen

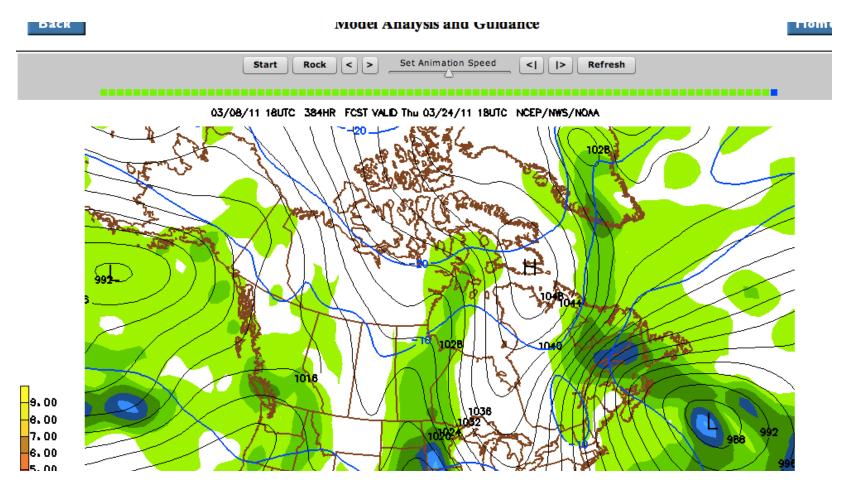
# Agenda

- NCEP Models
- Global Forecast System primary
- Short Range Wx tools HRRR & LAMP
- Q&A

### **GFS** Upgrade

- 8 Day to 10 day 3 hour fcast cycle
- Higher resolution
  - from 27km to 13km for first 10 days
  - 55km to 33km for day 11 thru 16
- Improvements to algorithms and sampling
- Higher computing power (2.5 petaflops)
- New products Hi-Res Rapid Refresh

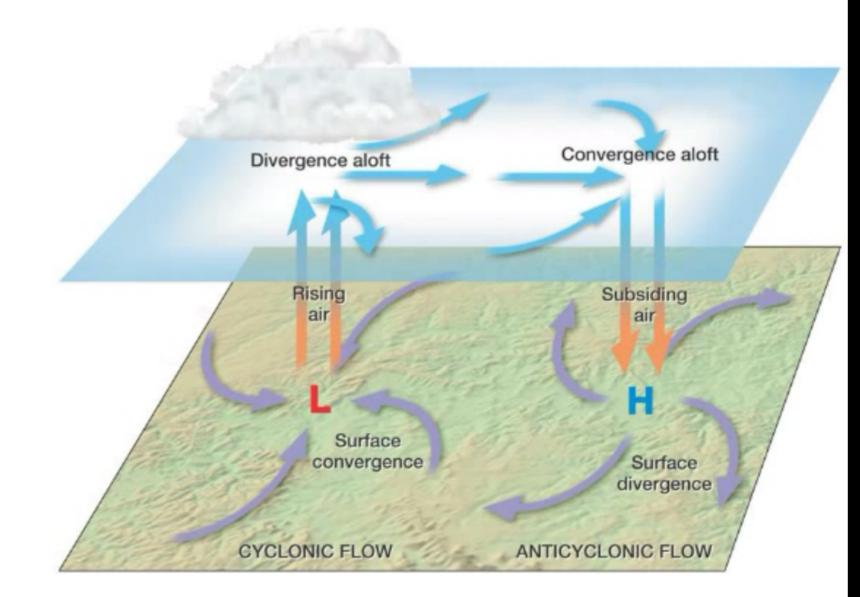
## GFS – Global Forecast System

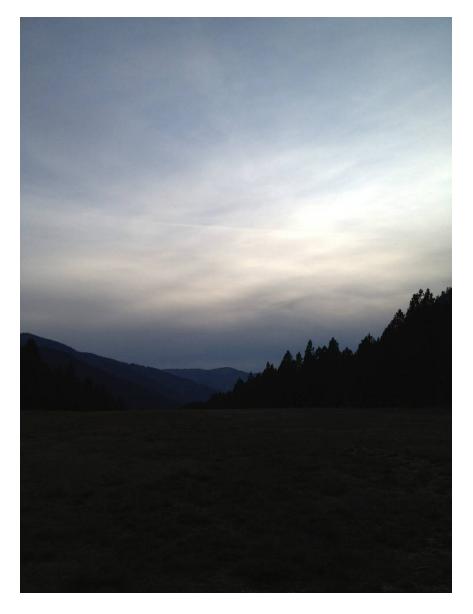


Runs 4 times per day First 10 days – 3 hr windows Second 6 days – 12 hr windows

13km (or33 km) grid by 64 levels up A statistical model using many points of observation (eg. RAWS).







12 hours before incoming LOW

#### **Incoming Low Pressure System**

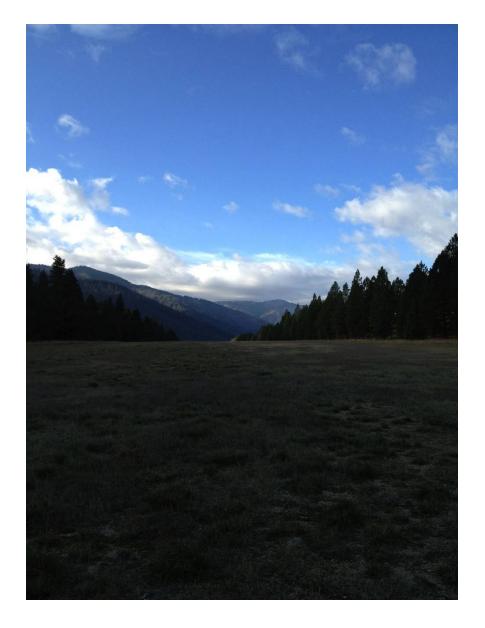




10am 6pm (light rain 2 hours later

### A Serious LOW





**Debris Day** 

# Valley vs Mountain Debris Day



http://www.cityofboise.org/Departments/Public\_Works/Services/AirOuality/page10796.aspx



http://www.flyingresortranches.com/



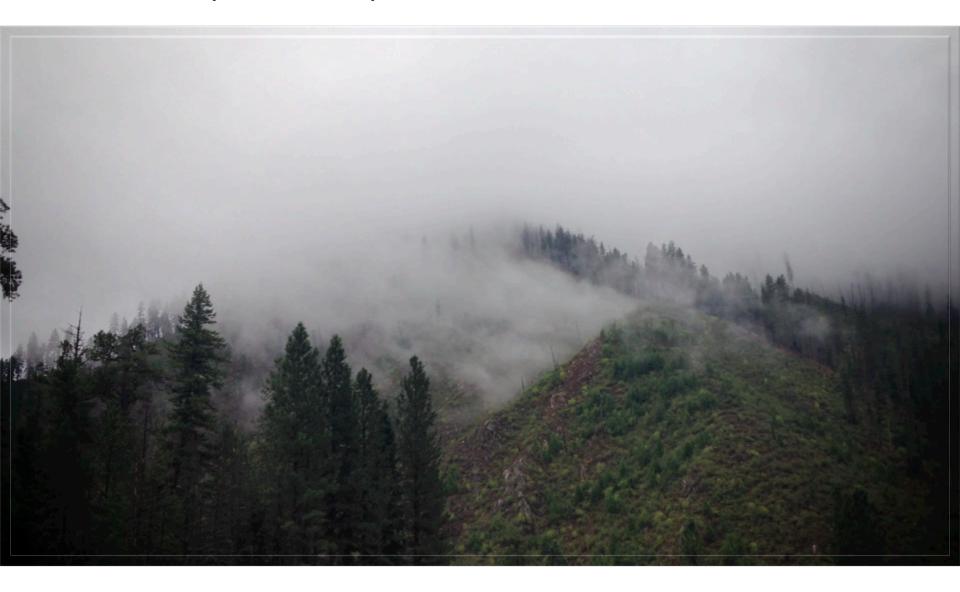
http://www.idahohotsprings.com/infocenter/webcams.htm

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

# Flight Levels and Pressure

- 1000mb = surface
- 850mb = 5000 ft msl
- 700mb = 10k ft msl
- 500mb = 18k ft msl

#### When temp and dewpoint meet...



Fog and low clouds are worse in canyons with trees – due to high RH

# Don't forget to check Flight Service

 You want a record that you checked the wx, in case of a problem later...

### Want to Learn More...



www.avwxworkshops.com