

# ***The Atmospheric Phenomenon***

**Procedure  
(BF-P)**

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Per 3

WE are going to launch a weather balloon with a Lab Pro and relative humidity sensor attached.

**Purpose:**

We are going to measure the relative humidity at different elevations up to 1000 ft.

**Equipment:**

Gondola with instruments, extra batteries, stopwatch, 1000 ft nylon cord, nylon cord reel, bright flags, lap top with programs, notebook,

**Payload:**

Lab Pro, relative humidity sensor,

**Lab Pro Set Up:**

- 1.) Put batteries in Lab Pro
- 2.) Plug into laptop
- 3.) Open Logger Pro and Click on “Experiments” at the top of screen. Then “Data Collection” change to every 10 seconds for the Lab Pro to record.
- 4.) Unhook lab pro
- 5.) Then go to “Experiments” and “Remote” and “Set Up” and Lab Pro 1” and then click ok
- 6.) Wait till the center light on lab Pro becomes gold
- 7.) After it is hooked to balloon, press the start button ONCE.

**Flight Procedure:**

- 1.) Take Cap off Cylinder, attach balloon to cylinder, and screw regulator on Cylinder

- 2.) Slowly fill balloon to 14 PSI
- 3.) Take Balloon off cylinder
- 4.) Tape opening of balloon and put ring on and tape it closed
- 5.) Attach the tether and Payload to the ring
- 6.) *Start timer* when the balloon gets raised up. Every 100 ft. tie a ribbon on the tether and stay at same height for 3 minutes.
- 7.) keep raising balloon and stopping at every 100 ft. until you reach 1000.
- 8.) slowly bring down balloon, removing all ribbons. Pop balloon, cut the balloon away from ring, and put stuff away.

### **Sharing Launch Station:**

- 1.) Help the other people that you're sharing the launch station with group launch their balloon.
- 2.) Help them clean up.

### **Data Retrieving Procedure:**

- 1.) Put fresh batteries in Lab Pro
- 2.) Plug Lab Pro into computer and open Logger Pro.
- 3.) Click yes to the program when it asks you if you would like to retrieve the data.