

LOST  
Procedure  
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We will launch a tethered meteorological balloon to 600m elevation at the Tobin James Cellars, Paso Robles, CA as part of the Balloon Fest, 2006.

The purpose of this experiment is to see what parachute can slow down a 327-gram weight. We plan to see which parachute can slow the weight down the most.

Equipment: balloon, helium, gondola with instruments, stopwatch, 1000ft of nylon cord, bright orange ribbon flags.

#### Ground Procedure

- ☆ Put both weights in the gondola
- ☆ Secure door with pin
- ☆ Weigh gondola
- ☆ Remove metal cap over top of helium tank
- ☆ Hook on tubing to tank
- ☆ Tighten tubing on tank
- ☆ Attach balloon to tubing
- ☆ Make sure everything is tight
- ☆ Start to fill balloon
- ☆ Make sure that helium balloon can lift gondola
- ☆ Close off tank
- ☆ Release balloon from tank (hold bottom of balloon tight closed)
- ☆ Twist bottom of balloon
- ☆ Wrap around metal wring
- ☆ Tape like crazy (hold balloon while taping)
- ☆ Attach sand to bottom of station (same weight at gondola)
- ☆ Hook on gondola to balloon's string (while holding onto crank so balloon won't fly away)
- ☆ Turn on all equipment and get everything working

#### Air Procedure

- ☆ Release the line until it is at 600 meters
- ☆ Take angle measurements
- ☆ Pull switch and release the weights along with their parachutes
- ☆ Start all stopwatches
- ☆ The people with stop watches chase after each balloon
- ☆ Have a person blowing a whistle in the general area of the falling weights

- ☆ Each person stops the watches when the weights hit the ground
- ☆ Follow and recover all parachutes
- ☆ Write down all the times that they were caught at

#### Materials

- ☆ Tubing
- ☆ Wrench
- ☆ Tank
- ☆ 1000ft of cord
- ☆ Cord holder/winder
- ☆ Weight (sand)
- ☆ Weights to drop
- ☆ Tape
- ☆ Knife
- ☆ Metal ring
- ☆ Batteries
- ☆ Hook (to hook on gondola to metal ring)
- ☆ Batteries (if needed)
- ☆ Two people for balloon handling
- ☆ 1-2 people at station
- ☆ Figures on how many cranks = 100 meters
- ☆ People at different altimetry stations
- ☆ 2 stopwatches
- ☆ Stop watch
- ☆ Color Coded Parachutes
- ☆ Weights (327 grams)
- ☆ R/C Remote
- ☆ R/C Servo
- ☆ Battery Pack
- ☆ Receiver
- ☆ Gondola/ Release
- ☆ Scissors