

Balloon Flight Trajectory Worksheet - Answer



Balloon Flight Predictor: <http://goo.gl/NEBAf>

Go to the above site and in the lower right portion of the screen you will see a place to enter the following parameters.

Parameter	Value	Instructions	Clue 1	Clue 2	Answer
Launch Site	Other				
Lat / Lon	/	Use Google Maps to find Lat Lon of our launch. Right click on the map and choose 'Drop Lat Lng Marker'	Casperson Park in Lakeville, MN		44.6652 / -93.287
Launch altitude	m	Find the altitude of Caspersen Park in meters	Internet search find a site that will give you altitude of a Lat Lon.	Enter Lat Lon here: http://goo.gl/CXsjH (select 'meters' as units)	306.6 m
Launch time	UTC	Enter the time we are launching in UTC. UTC is the same as Greenwich Mean Time (GMT).	We are launching at 10 am Central Daylight Time. We are UTC - 5 during Daylight Savings.	Add 5 hours to our launch time.	15:00 UTC
Launch Date		Enter the date we are launching	This is an easy one - you don't need a clue, do you?	It is 20-May-12	20-May-12
Ascent Rate	m/s	Enter in ascent rate in meters per second. We are targeting 1000 feet per minute.	There are 3.28 ft in a meter and 60 seconds in a minute. Divide ft / min by 3.28 and divide that by 60 to get m/s.	[1,000 ft / min] divided by [3.28 ft / meter] / [60 seconds per minute] = 5.08 meters / second.	5.08 m/s
Burst Altitude	m	Enter in the Burst Altitude in meters. We are targeting 95,000 FEET.	There are 3.28 ft in a meter.	Divide ft / min by 3.28 and divide that by 60 to get m/s.	28,956 m
Descent Rate	m/s	Enter in ascent rate in meters per second. We estimate descent will be 2500 feet per minute.	There are 3.28 ft per meter and 60 seconds per minute. Divide ft/min by 3.28 and divide that by 60 to get m/s.	[2,500 ft / min] divided by [3.28 ft / meter] / [60 seconds per minute] = 12.7 meters / second.	12.7 m/s
GFS Definition	GFS	Just use GFS.			GFS
Lat/Lon Deltas	Lat 3 Lon 3	Leave at default value of 3.			Lat 3 Lon 3

Now click "Run Prediction" and zoom in on the results.