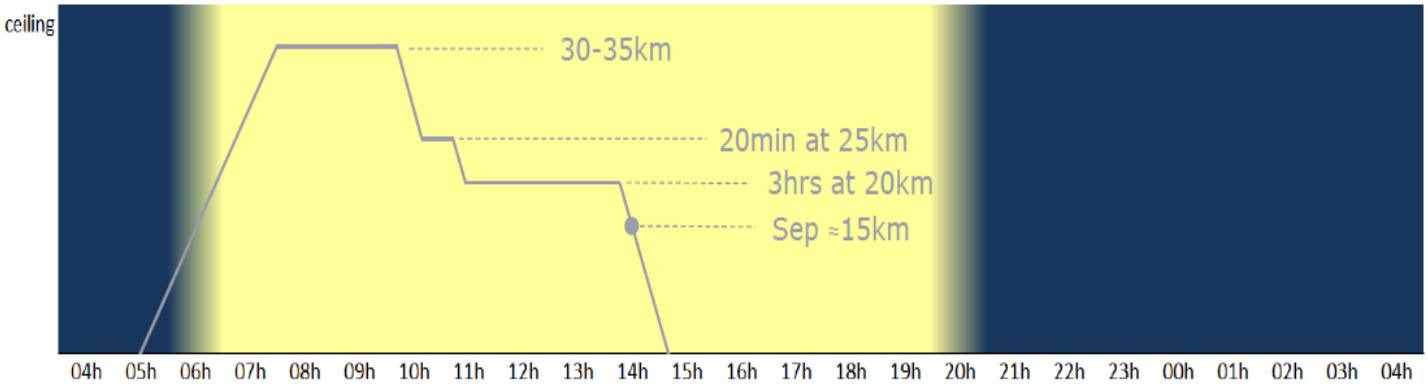
Addendum 1

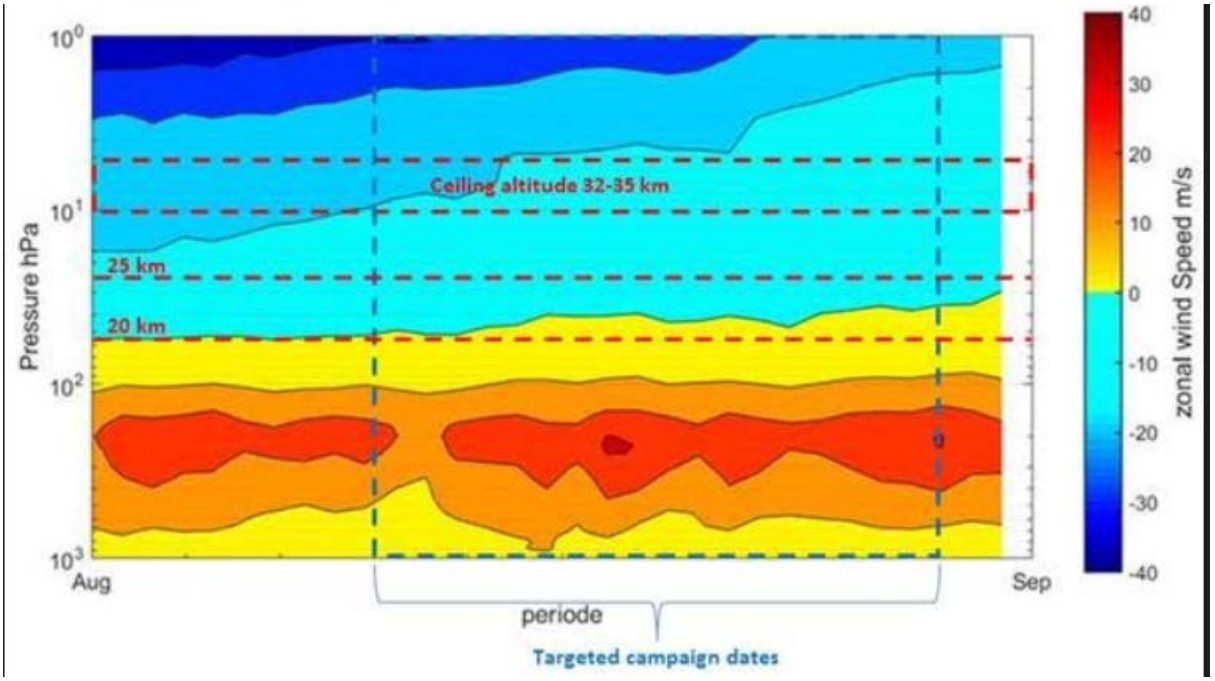
Q1. Can graduate students be a part of the team as student members or advisors?
A1. Post-graduate students such as those enrolled in Masters, PhD and Post-Doc programs cannot form a team but may join undergraduate teams as advisors.

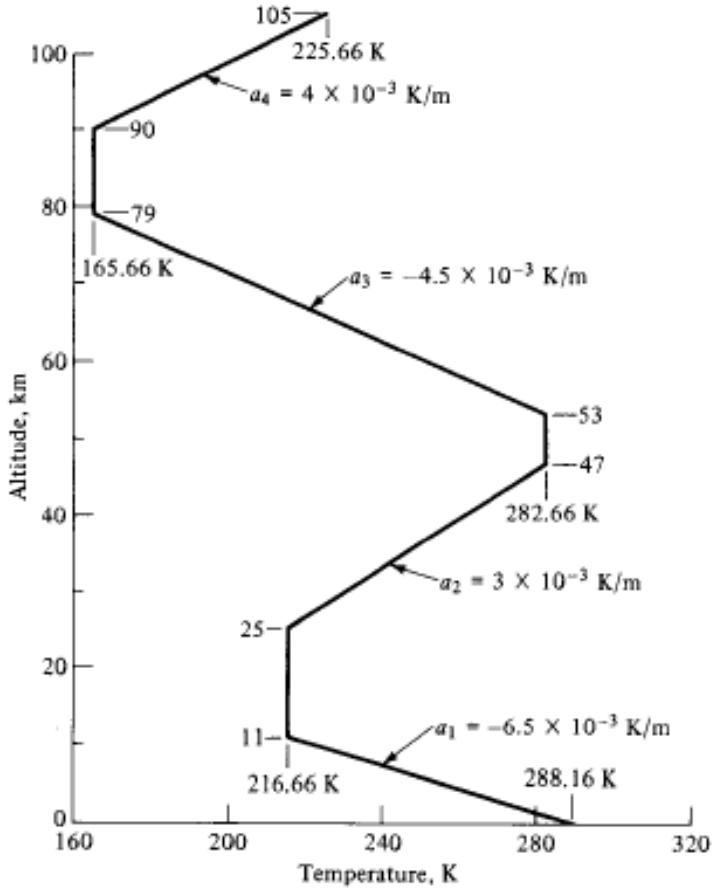
Q2. Can the team be composed of people from different universities?
A2. The majority of students must be enrolled in the same primary institution, however students from collaborating institutions may join a team. Collaborating institutions are colleges, universities and high schools who have contributed time and/or resources to the project. The team leader must be enrolled in the primary institution.

Q3. A few of my team members and I will be graduating in April, 2018. Can we still participate in the experiment and the launch campaign?
A3. Yes

Q4. In order to choose an appropriate experiment, it would be helpful to know the flight parameters of the particular balloon type being flown in the flight campaign. Can you provide information such as altitude profiles, winds aloft, temperatures, ground speeds, motions of the gondola, etc.? Information, especially maximum altitude, would help to define exactly what kind of data collection environment the balloon will provide.
A4. All information available at this time shown below.




Pressure hPa
10^0
10^1
10^2
10^3
Ceiling altitude 32-35 km
25 km
20 km
Aug
Sep
periode
Targeted campaign dates
zonal wind Speed m/s
40
30
20
10
0
-10
-20
-30
-40


105
225.66 K
$a_4 = 4 \times 10^{-3}$ K/m
90
79
165.66 K
$a_3 = -4.5 \times 10^{-3}$ K/m
53
47
282.66 K
$a_2 = 3 \times 10^{-3}$ K/m
25
11
216.66 K
$a_1 = -6.5 \times 10^{-3}$ K/m
288.16 K
Altitude, km
Temperature, K
0
20
40
60
80
100
160
200
240
280
320

The above figures are from the Canadian Space Agency, CNES and Introduction to Flight 3rd Edition by John Anderson, respectfully. Introduction to Flight can be found online and is a great resource for determining a baseline for potential flight conditions, in particular Chapter 3: The Standard Atmosphere. The wind will be blowing roughly westward at ceiling, between 5-15 m/s (18-54 km/h). A more in-depth campaign analysis will take place in November. The gondola will not be pointed and students must design their experiments around this fact.

Q5. Does data have to be collected and analyzed onboard the balloon? Does live telemetry need to be transmitted to the ground from the experiment? Can our experiment be a sample collection device which brings samples to the ground for analysis?
A5. Data will be collected transmitted to the ground station. Data will not be analyzed onboard the balloon. Yes, the experiment can be a sample collection device. However, the volume and power will be dictated. The experiment will be contained within a .387m [L] x .394m [W] x .260m [H] Pelican Case and peak power consumption no greater than 30W.