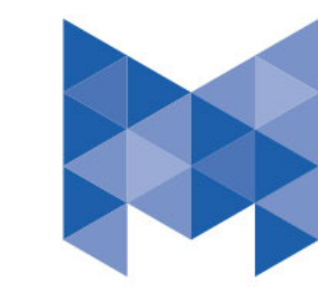


# Cosmic Radiation In High Altitudes



**METROPOLITAN**  
Community College

## INTRODUCTION

Our class sent up a High-Altitude Balloon (HAB) to conduct experiments in the upper atmosphere. My group wanted to measure the levels of cosmic radiation at different altitudes. HAB can go up to 100,000 ft. and are used by amateur and professional scientists for education as well as research.

## BACKGROUND

Cosmic rays are particles streaming down on us all the time from sources like the Sun and other stars. We are constantly bombarded by them from all directions, but the atmosphere slows some of them down. When a cosmic ray collides with a particle in the atmosphere, it produces a shower. That shower is what our sensor was picking up.

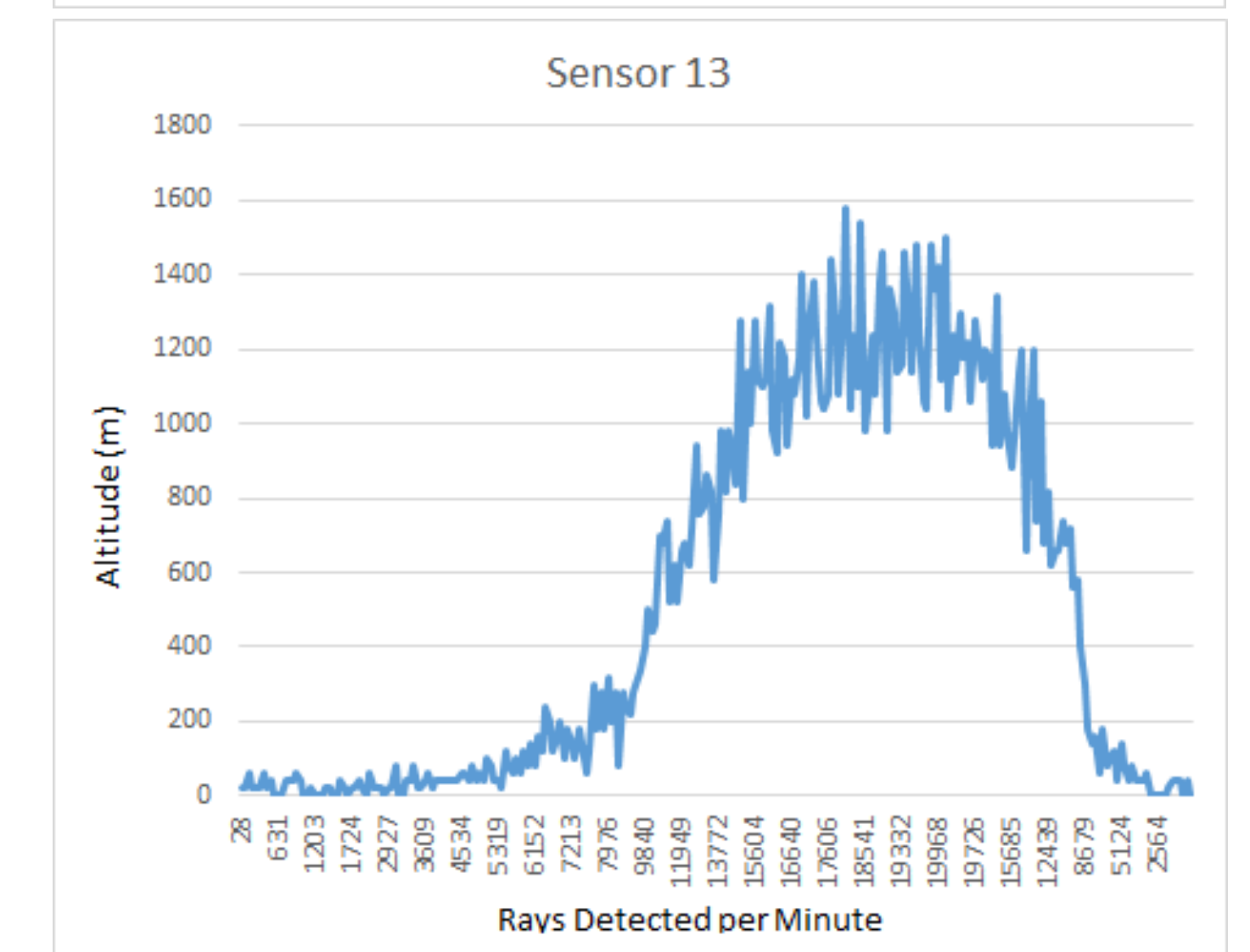
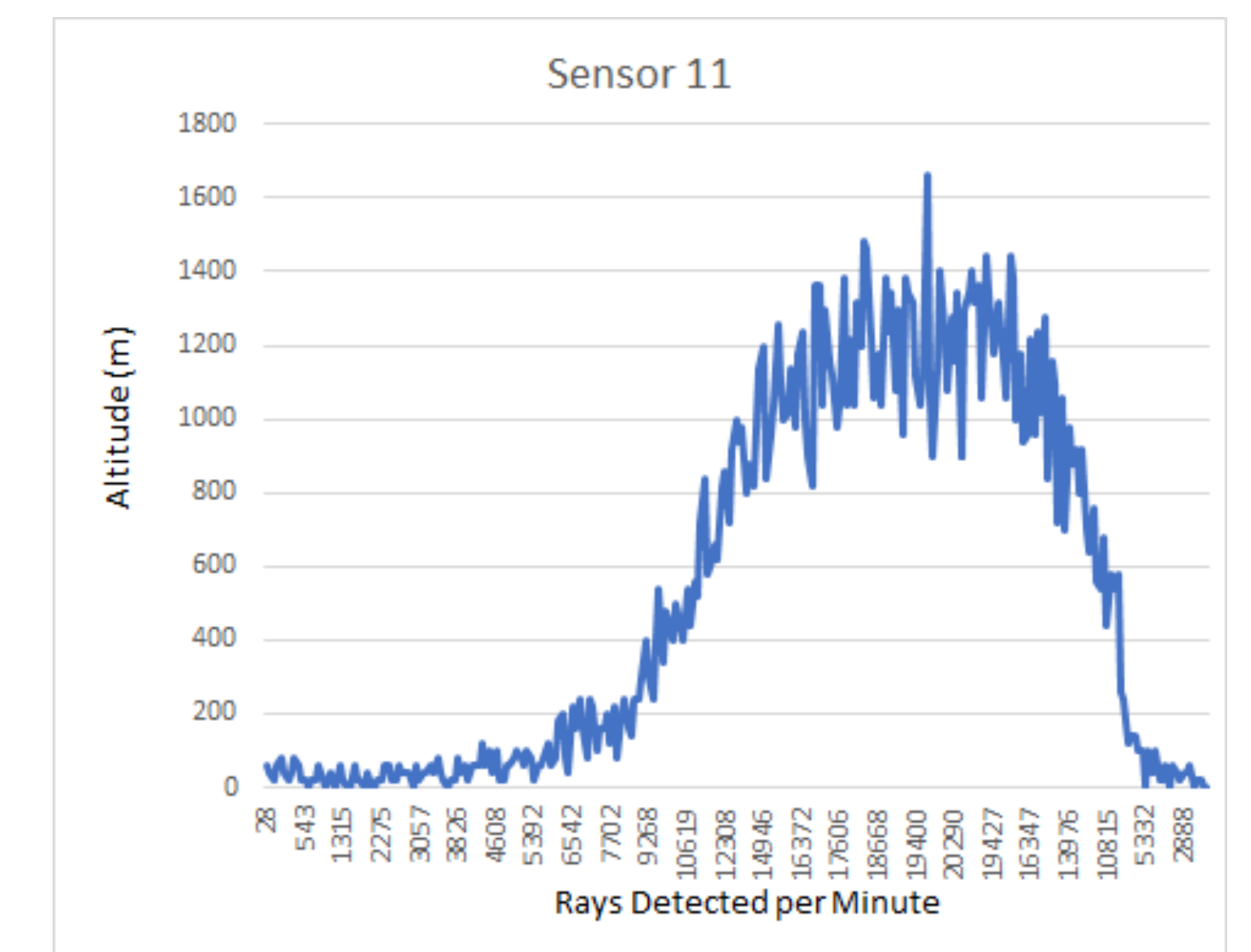
## METHOD

We installed a cosmic ray sensor and a battery into a protective Styrofoam box to attach to the HAB. There were two sensors through which it detected cosmic radiation; sensors 11 and 13. It measured the rays at intervals of 5 seconds.

When we got our HAB back, our sensor had become unplugged from the battery and had collected no data.

Since no data was recovered, we were able to use data previously collected by another class.

The data was organized by which sensor had taken the data and listed the number of rays detected per five seconds as well as the altitude in meters.



These graphs represent the number of rays detected per minute by sensors 11 and 13 at different altitudes.

## CONCLUSION

Results showed that cosmic rays were more prevalent in the higher atmosphere. This is because your sensor is closer to the showers, but it levels off because there are less particles to create the showers.

## CONTACT

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