**Abstract:** We are one of 57 teams across the nation that participated in the NASA High Altitude Balloon Project. Not only did we launch the common NASA payload, our team designed, engineered, and constructed our own payload named “Tornado.” Our own team’s additional goals included photographing the umbra, and learning how UVA, UVB, gamma radiation, and other atmospheric conditions are affected during a solar eclipse. We met all of our team goals as well the NASA goals. Furthermore, we also participated in a project conducted by the NASA Ames Research Center and analyzed by Cornell University; this project involved attaching bacteria samples to our payload in order to test their survival in the upper atmosphere and the results will tell us about the Mars atmosphere.

**Conclusion:** Our team successfully launched two balloons and streamed live video to NASA television, along with collecting radiation data during the total solar eclipse from the upper atmosphere. Cornell researchers are currently interpreting the data from our Astrobiology Experiment. In addition, our team participated in the mega movie project and captured extraordinary photos of the eclipse from the ground telescopes. Now, we are at the end of this two year journey and being able to see all our hard work pay off during the two short minutes of the eclipse, has made it all worth it.