We present the successful high-altitude balloon system developed and used by Gannon University for August 21, 2017 Solar Eclipse. Gannon University, along with a nationwide network of collegiate teams sent payloads to an altitude of ~24 kilometers to capture and stream video footage and still-image shots of the eclipse and to track the path of the balloon.

Preparations began Monday August 14, 2017. Payloads were tested and assembled in the lab and field tested through tethered launch and automobile tracking exercises.

The Gannon team traveled from Erie Pennsylvania to Cadiz Kentucky to capture the solar eclipse. Four helium tanks were picked up from the University of Kentucky and loaded onto the bed of a truck. The team also ran flight predictions to map out possible locations where the balloon might land.

On Eclipse Day, the launch site was prepared at Trigg County High School in Cadiz Kentucky. After running pre-flight tests, the 2,000g balloon was filled with 200 cubic feet of helium gas. The payloads were tied to the balloon, and the balloon was launched. Video captured by the payloads was transmitted to the ground station and livestreamed from a laptop.