

66th International Astronautical Congress 2015

SPACE EDUCATION AND OUTREACH SYMPOSIUM (E1)
Lift-Off - Secondary Space Education (2)Author: Ms. Tara RuthAnn Sprinkle
United States, trs0011@uah.eduBUILDING SELF-TAUGHT SCIENTISTS: STUDENTS FROM A TRADITIONALLY LOW
ACADEMICALLY PERFORMING REGION EXCEL THROUGH SELF TEACHING MEDIUMS SUCH
AS WIKIPEDIA AND HANDS ON LEARNING**Abstract**

On Saturday, November 22nd, 2015 Space Hardware Club of the University of Alabama in Huntsville sponsored a high altitude ballooning STEM outreach project in Haleyville Alabama, a low academically performing region. The focus of this event was to use Wikipedia as a primary self-learning tool. The said STEM outreach involved undergraduates of the University of Alabama in Huntsville, northwestern Alabama public high school students and various Alabama engineering and research professionals in collaboration with A-Future program coordinator Adam Martin. A-Future is a purely Wikipedia based extra-curricular STEM lecture and competitive project program in four hour Saturday morning sessions, over six weeks. All students who attended all six sessions and presented a well-formed science or engineering project were allotted a \$1,000 scholarship to the University of Alabama in Huntsville. The Alabama public school students present at the Haleyville high altitude balloon launch were in attendance to competitively display their A-Future scholarship projects. Each project was judged by the various professionals present based on originality, quality and presentation. Placing students were honored at their respective schools. The undergraduate engineering club, Space Hardware Club, sponsored the November 22nd Haleyville, Alabama space outreach event financially and procedurally. All materials and leadership needed to guide the students through the preparation, fill and launch process were provided by Space Hardware Club. The pictures shown in later sections of this event synopsis represent the students actively calculating balloon lift, asking undergraduates about science payloads, and networking with professionals. Concluding the launch, the students were then contacted via email to provide on-board video footage, invitation to later launch events and proposed questions based on flight data. Space Hardware Club member and A-Future engineering and science lecturer, Tara RuthAnn Sprinkle, was the main coordinator of the STEM outreach launch alongside fellow club member Trey McFerrin. The Haleyville, Alabama STEM outreach high altitude balloon launch was a complete success where the main focus of A-Future and the balloon launch were learning how to use sites such as Wikipedia as a primary learning source in unsatisfactory schools. Further, the Haleyville balloon launch was an apt conclusion as all participants were engaged and working toward a common goal: a successful lift-off, on the field and off.