



North Dakota State-Wide High Altitude Balloon Student Payload Competition

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The North Dakota Space Grant Consortium (NDSGC) is funding a competition for student groups across the state in grades six through undergraduate level to design and build payloads to fly on a high altitude balloon. The goals of this project are to raise awareness of NDSGC's education and outreach projects, to help increase students' interest in STEM activities, and to utilize our school's high altitude balloon program in fostering state-wide participation. We informed schools of the competition through letters, the NDSGC website, social media, and news stations. Five student groups submitted payload proposals. 10th-12th graders in Mandan proposed a payload testing the effectiveness of solar panels in the upper atmosphere. 10th-12th graders in Cavalier proposed testing the effects of the upper atmosphere on different forms of eggs. 9th-12th graders in Bismarck proposed finding a way to obtain live-streaming video from a payload. 8th graders in Northwood proposed measuring the temperature during the balloon flight as well as taking pictures of the Earth and horizon. Undergraduates in Dickinson proposed testing the viability of two strands of bacteria in the upper atmosphere. We have been working with each team on developing their payloads, and we plan to transport everybody to Bismarck the weekend of April 27-29, 2012 to launch the payloads on a high altitude balloon. After recovery of the payloads, the student groups will submit reports of their findings. We will award cash prizes to the groups' science departments and a grand prize trip to the UND Space Studies Department.