

MINNPOST

Students to launch weather balloons in northwestern Minnesota

By [Sharon Schmickle](#) | 06/08/10

If you're watching northwestern Minnesota's sky at just the right time on Wednesday morning, you could see the launch of a research project by students in one of Minnesota's most interesting science education efforts.

The event is the launch of two helium-filled weather balloons in connection with "[Reach for the Sky](#)," a summer program on the White Earth Indian Reservation. A video about the program, narrated by former Vice President Walter Mondale, is available [here](#).

Fifty 4th through 8th grade students are to launch science experiments to the edge of outer space ("near-space" — the upper reaches of the atmosphere, above 80,000 feet). In about 30 experiments, the students will test science theories and apply hands-on science and math to their world.



The students began work in teams on Monday and Tuesday to build eight miniature spacecraft, with about 5 science sensors plus a camera in each one, as well as tracking radios.

The cameras are intended to document the view from so high in the atmosphere that the sky is black even in the day time, and the curve of the Earth is visible. The data they collect will be sent down by radio to computers on the ground, or downloaded once the payloads are retrieved.

Students from the University of Minnesota's [High Altitude Balloon Team](#) will help the Reach for the

Sky kids analyze the data to address questions such as:

- What does the landscape look like from that height?
- Are we really facing global climate change?
- How does the sun's radiation change as we go up?
- How does the temperature change with the changes in atmospheric pressure?

The balloons will carry GPS units for tracking and recovery after the flight.

Launch preparations are to begin at 8 a.m. Wednesday somewhere near the Circle of Life School (exact launch location depends on weather conditions.)

The Reach for the Sky project is in its third year where culturally relevant science has been used to study various aspect of physics of flight, engineering, renewable energy, wind energy, human powered machines, and more. It is sponsored with the U of M's College of Education and Human Development and the College of Extension, by a grant from the National Science Foundation ITEST division, and by the Minnesota Space Grant Consortium through the U of M's Institute of Technology.

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