

Homeroom > White Bear Lake High School

A glimpse from high

Aerospace class, with help from U, launches its own high-altitude balloon and learns from its journey

By Katie Askew
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A group of students at White Bear Lake High School spent six weeks designing a 5-foot-wide balloon only to have it explode 74,000 feet in the air.

The high school's aviation and aerospace class paired with the University of Minnesota's aerospace department to launch a high-altitude helium balloon carrying a payload of scientific instruments and video cameras as a class project.

Peter Pitman, the aviation and aerospace sciences teacher at White Bear Lake, approached the university earlier this year to help with the project.

"We designed the payload, which was a hard Styrofoam box with three cameras attached at different angles," Pitman said. "The university provided radios that let us track the balloon as it drifted over Wisconsin."

The students launched the balloon with the attached payload on Thursday, Dec. 6, from the high school.

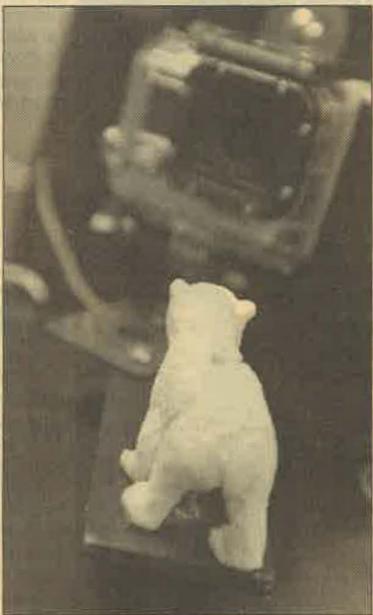
"Launch day was super cool," said Charlie Anderson, a student in Pitman's class. "If I had to pick one point that was the most intense, it would be the final five seconds before takeoff. The whole school was waiting to see what happened."

After launching the latex balloon from the high school, the students watched for about 20 minutes until it disappeared from sight.

Senior Bean Laman, 17, said the class also tracked the balloon's path on computers.

"We were doing online simulations and putting in different acceleration and deceleration rates compared to various weights," Laman explained. "I like this because it's stuff that NASA does, and I want to work for them one day."

The balloon reached a height of 74,000 feet, about 18 miles, before exploding. A parachute then



For fun, students attached a little white bear in front of one of the cameras. For more photos, go to photos.TwinCities.com.

launched, and the payload came back to earth at 100 miles per hour.

Anderson, a junior in Pitman's class, helped gather data to calculate where the payload would land.

"Our prediction chart said the balloon was going to head east and land somewhere around Eau Claire (Wis.)," Anderson said. "It did — it landed within five miles of our predicted zone."

Pitman and the rest of the recovery team drove to a harvested cornfield where the parachute landed.

"We were prepared to climb trees to get it back," Pitman joked. "Luckily, we only had to walk about a quarter mile into a field."

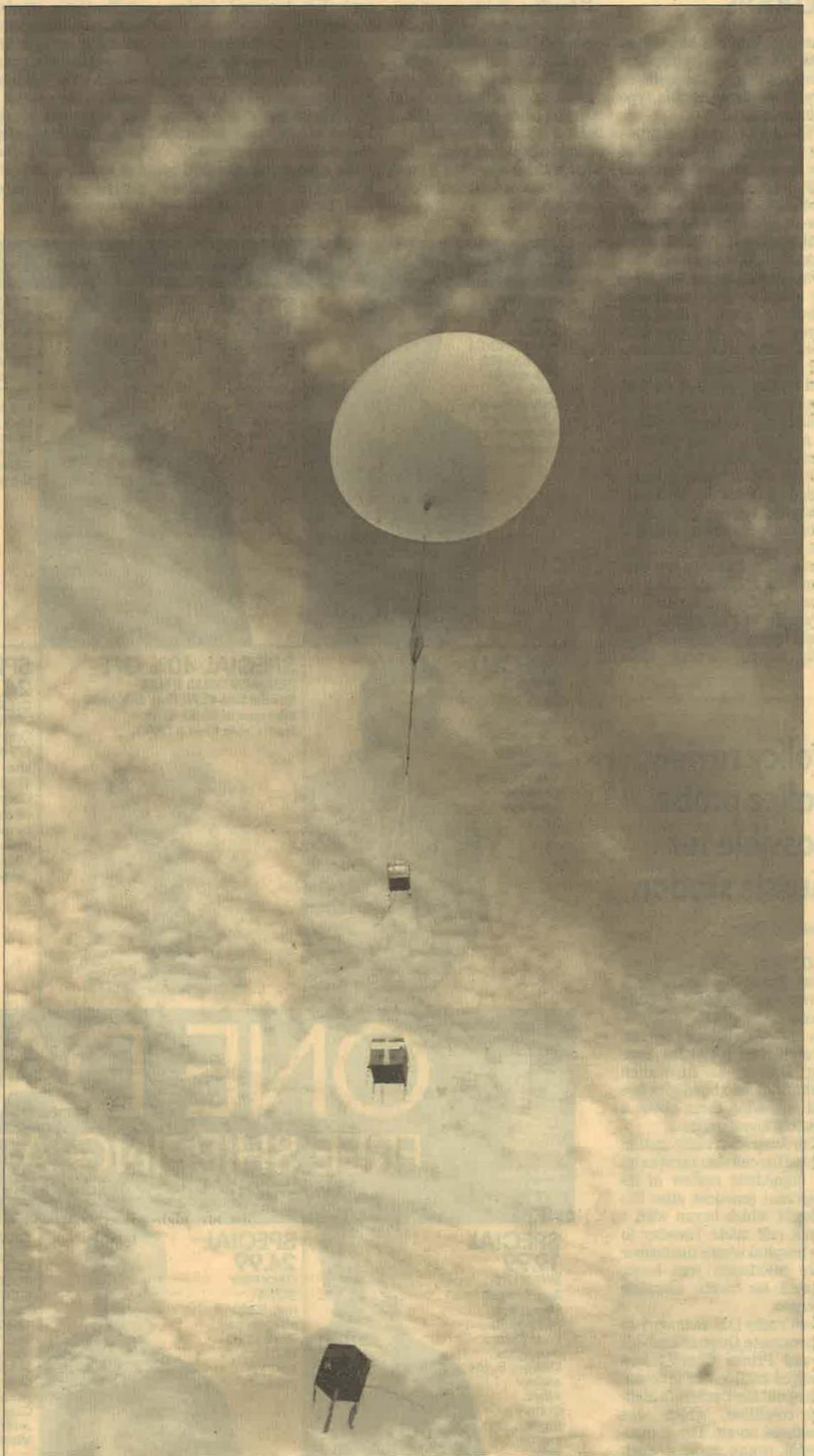
The class is using altimeters aboard the payload and footage the camera collected to compile images and see what space looks like at different altitudes.

For a joke, the group attached a little white bear, visible in some of the footage, to the payload, Anderson said.

Patrick Sogard, another student in Pitman's class, said that watching the follow-up footage to the project is the best part.

"It's really cool to see," said Sogard, 17. "There are times where it's really violent, then times when it's calm and peaceful. We're trying to figure out why."

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PIONEER PRESS PHOTOS: JOHN DOMAN
Above, the White Bear Lake High School aviation and aerospace class' weather balloon ascends, dragging its payload of three cameras and other instruments.

Left, senior Dean Laman looks skyward as he and other students from his aviation and aerospace class and the University of Minnesota stabilize the balloon as it fills with helium. The students teamed with the U to launch the high-altitude balloon Thursday.