

FOR IMMEDIATE RELEASE
December 20, 2006

Contact: Rick Shetter, NSERC Director
701.330.2126
r.shetter@nserc.und.edu

George Seielstad, NGPCP&E
701.777.4755 or 701.777.2490
gseielst@aero.und.edu

UND Enables Top Astronomical Discovery of 2006

Grand Forks, ND – Stardust, the first mission conducted by the University of North Dakota operating NASA’s DC-8 research aircraft has been named the top astronomy story of the year by *Astronomy* magazine. The article appears in the magazine’s January 2007 issue.

Scientists aboard the DC-8 gathered data and captured imagery of the Stardust space capsule during its fiery reentry to Earth’s atmosphere on January 15, 2006.

“It was a perfect way for the University to demonstrate its ability to conduct and support science of the highest significance,” said Rick Shetter, Director of UND’s National Suborbital Education and Research Center (NSERC). “The entire NSERC team is pleased to have had a major role in what turned out to be a path setting mission.”

The Stardust spacecraft was launched in 1999 and traveled to Comet Wild 2, approaching to within 149 miles on January 2, 2004. The encounter was brief, since Stardust was traveling at six times the speed of a rifle bullet. While in the comet’s vicinity, a special gel onboard the spacecraft caught dust particles the Sun’s radiation boiled off the comet. Then began the long journey home.

Its reentry speed was the fastest ever for any manmade object, nearly 29,000 miles per hour. Scientists needed to monitor the reentry for two reasons. The first was to capture pictures and chemical analyses of the performance of a new heat shield. If this shield behaved as expected, it could be used on the next-generation space vehicle, presently being designed. The second reason was to learn what happens when meteors encounter Earth’s atmosphere. Because their entries are not predictable, it is impossible to be in the right place at the right time to witness meteors’ arrivals.

“Having the DC-8 in the right place at the right time with 20 cameras and other instruments on board was the secret of our success,” said George Seielstad, Director of UND’s Northern Great Plains Center for People and the Environment. “Although we had only about 90 seconds to track an object traveling at Stardust’s tremendous speed, we caught the full sweep from entry to touch down in Utah. The science team couldn’t have been happier.”

Clifford Hall Room 300
4149 University Avenue Stop 9011
Grand Forks, ND 58202-9011

Phone 701.330.2126
701.777.2490
Fax 701.777.2940

Nearly simultaneously with the publication of *Astronomy* magazine's January 2007 issue, *Science* magazine, the prestigious journal of the American Association for the Advancement of Science, devoted a special section of its December 15, 2006 issue to the scientific results for which the Stardust mission earned recognition as 2006's best.

"Being involved in a research project of this significance adds both sizzle and lustre to the research enterprise at the University of North Dakota," said UND President Charles Kupchella. "Because this flying laboratory matches up so well with our world-class program in aviation sciences, we are especially delighted to be involved in operating the DC-8 and exciting missions such as this one."

For more information about UND-NASA's DC-8 visit <http://www.nserc.und.edu>.

###

Clifford Hall Room 300
4149 University Avenue Stop 9011
Grand Forks, ND 58202-9011

Phone 701.330.2126
701.777.2490
Fax 701.777.2940

w w w . n s e r c . u n d . e d u