ICESat (Ice, Cloud, and land Elevation Satellite) returned to Earth in the Barents Sea at 3AM MDT yesterday after seven successful years on orbit taking laser altimeter data of polar ice. NASA estimates that 500lbs of the 2000lb satellite reached the surface. The fuel remaining after the lasers failed was used to deorbit.

This is a mission that CCAR and LASP had much to do with. Ball built the spacecraft; CCAR built the operational orbit determination software and special software to allow pointing the altimeter at targets of opportunity, and LASP operated the spacecraft.

A number of CCAR alums worked this project and I want to acknowledge them. Dan Kubitschek did the original work on the operational orbit determination software and Cam Meek completed and validated the system.

It worked perfectly except for one little glitch when a leap second was added. Jason Stauch developed the pointing software that allowed us to point the laser at targets of opportunity.

I received an email with the following quote from Jay Zwally of GSFC, the Project Scientist, on Jason's contribution: "BTW, the repeat track pointing you all worked out for ICESat was key to achieving mission success. :-) You remember how we had to fight Bob Thomas on that!"

Jason Leonard has been working with the reentry data to validate atmospheric density models. Bill Frazier and Scott Mitchell were key engineers in spacecraft and mission success for Ball. Many of our undergraduate and graduate students worked in the LASP Operations Center over the years.

Congratulations to everyone for a job well done.

George

--

****
George H. Born
The University of Colorado
Dept. of Aerospace Engineering
Colorado Center for Astrodynamics Research
Campus Box 431 UCB
Boulder, CO 80309
303-492-8638 (office)
303-492-2825 (fax)
georgeb@colorado.edu
http://ccar.colorado.edu/
****

8-31-2010