

National Space Grant Student Satellites Program update



National Space Grant Director's
Meeting
September 22nd, 2011

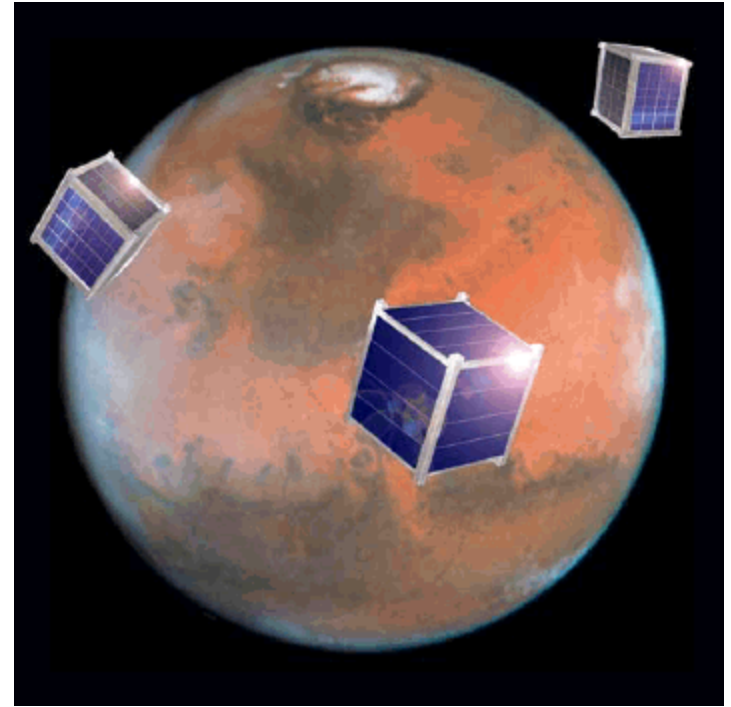
What does NSGSSP do?

- ▶ Keep you informed about opportunities for educational satellites
- ▶ Help collect and compile summary information about Space Grant student satellite projects
- ▶ Work on developing a collaborative, inter-state CubeSat effort



History of the NSGSSP

- ▶ Founding Committee: Mike Drake (AZ), Bill Hiscock (MT), Elaine Hansen (CO), and Helen Reed (AZ)
- ▶ Strategy: Crawl, Walk, Run, Fly
- ▶ Mission: Make aerospace history and send the first student-built satellites to Mars – 52 of them!



The National Space Grant Student Satellite Program

Crawl

Walk

Run

Fly



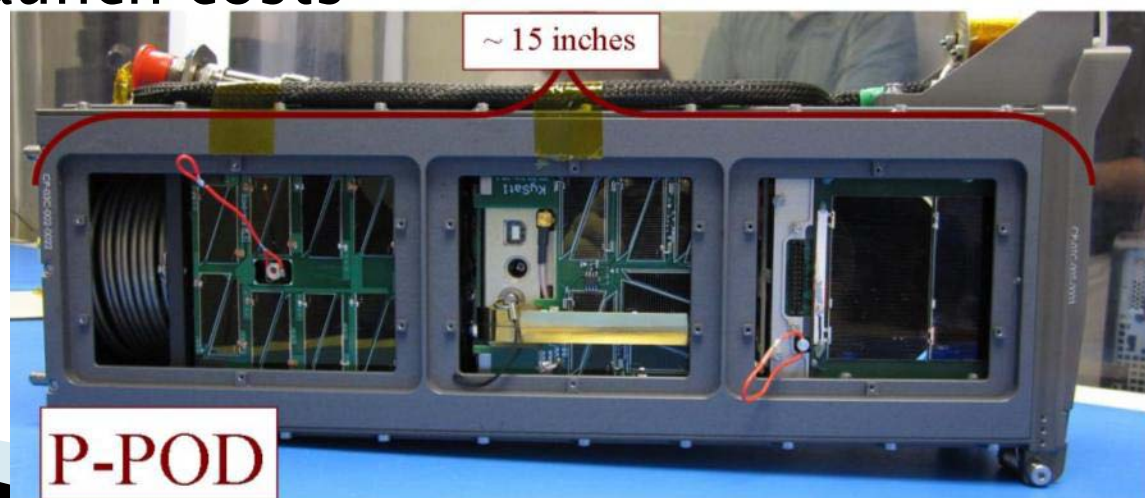
Current Opportunities

- ▶ NASA's CubeSat Launch Initiative (CSLI) –solicitation is open; proposals are due Nov. 14th with selections made by Jan. 30th, 2012

Direct Link: http://prod.nais.nasa.gov/eps/eps_data/147535-OTHER-001-001.pdf

Or <http://go.nasa.gov/CubeSatOp>

- ▶ Proposals wanted! Even if you're not quite ready for launch in two years...
- ▶ CSLI program director wants to show there is demand for launches
- ▶ Good news: NASA launch costs
- ▶ Other opportunities exist (Air Force, etc.)



Preparatory Opportunities

Pipeline/crawl, walk, run, fly

▶ High Altitude Student Platform (HASP)

Link: <http://laspace.lsu.edu/hasp/index.php>

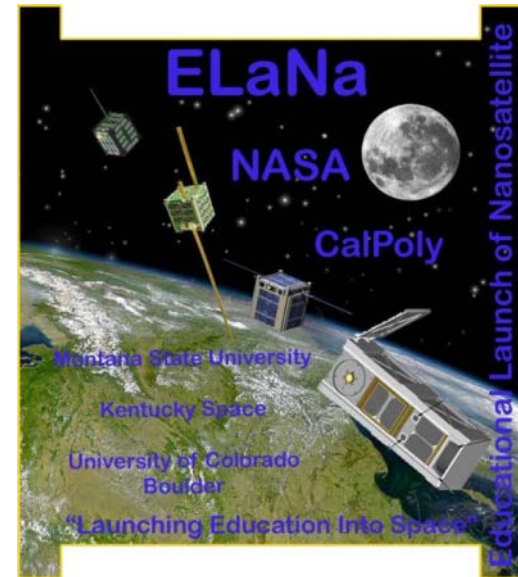
▶ RockOn/RockSat

Link: <http://spacegrant.colorado.edu/index.php/national-programs/rocksat>



Up next: ELaNa III... IV, V, VI

- ▶ ELaNa III: 3 P-pods will launch with NASA's NPP mission on October 25th, 2011 on a Delta II from Vandenberg
- ▶ ELaNa III P-pods will carry CubeSats from Auburn University, Montana State University, Space Dynamics Lab, University of Michigan, and Utah State University
- ▶ ELaNa IV, V, and VI are currently being manifested from the existing CLSI ranking for launch in 2012 and 2013
- ▶ ELaNa launches have 1-8 p-pods each and are a mixture of education and other satellites, with education getting priority



NSGSSP action items

- ▶ New survey of Space Grant student satellite programs next year
 - Please help by responding to the new survey
 - Last student led flight projects survey was completed by NASA Education, with help from the NSGSSP committee, in 2008; Review on next slide
- ▶ Discuss potential large collaborative effort – if you have ideas for doing something new and interesting, let us know
- ▶ Survey of on-line small satellite design courses

2007 Student-led flight projects survey results

- ▶ **86%** of Consortia indicated that in 2007 they were engaged in a student-led flight project (n=44)
- ▶ In 2007, there were more than **200** student-led flight projects involving **180+** Institutions of Higher Education and nearly 90 Industry partners.
- ▶ These projects engaged nearly **2,200** college students, more than 275 faculty, and **115+** precollege educators.
- ▶ NASA Center involvement was cited by **64%** (n=28) of Consortia who indicated engagement in student-led flight projects.
- ▶ The 2007 NASA Space Grant investment supporting student-led flight projects totaled approximately **\$1.7 million**. Additionally, **\$2.75 million** in non-NASA Space Grant funding was utilized to support student-led flight projects.

NSGSSP Committee

- ▶ Current committee: Chris Koehler (CO), Luke Flynn (HI), Angela Des Jardins (MT)
- ▶ Starting to meet via telecom every three months
- ▶ Interested in helping? Join the committee