NASA's Launch Services Program

"Launching Education into Space"
Amanda Mitskevich - Program Manager
How do NASA and CubeSats work together?
Goal 6: Share NASA with the public, educators, and students to provide opportunities to participate in our mission, foster innovation and contribute to a strong National economy.

6.1 Improve retention of students in STEM disciplines by providing opportunities and activities along the full length of the education pipeline.

6.2 Promote STEM literacy through strategic partnerships with formal and informal organizations.

6.3 Engage the public in NASA's missions by providing new pathways for participation.

6.4 Inform, engage and inspire the public by sharing NASA's missions, challenges, and results.

NASA offers structured programs for students and college faculty to engage in STEM learning activities such as competing in technical design challenges, launching student-built payloads, and participating in research and hands-on engineering experiences using real-world platforms, including high-altitude balloons, sounding rockets, aircraft, and space satellites.
LSP's Role in CubeSats

**LSP Vision**
To be the recognized leader in launch services

**LSP Mission**
Leadership and expertise in providing on-orbit, on-time, and on-cost launch services

**LSP Goals**
- Goal 1: Maximize Mission Success
- Goal 2: Assure Long-Term Launch Services
- Goal 3: Promote Evolution of a US Commercial Space Launch Market
- Goal 4: Continually Enhance LSP's Core Capabilities
CubeSat Launch Initiative

- NASA's CubeSat Initiative ELaNa - Educational Launch of Nanosatellite
- CubeSats are planned as auxiliary payloads
- NASA has selected over 30 small satellites to launch in 2011 and 2012
- First CubeSat to be carried for LSP was ELaNa I
Manifesting

**CubeSat Launch Initiative**
- CubeSat Missions

**NASA CubeSat Missions**
- CubeSat Missions

**DoD CubeSat Missions**
- CubeSat Missions

**Launch Services Program**
- perform manifesting and management of CubeSats integration on ELVs

**Selection Representatives**
- SOMD
- OCT
- ESMD
- DoD
- SMD
- Education

**CubeSat Missions**
- Selection List
  - CubeSat 1
  - CubeSat 2
  - CubeSat 3
  - CubeSat N
KSC's Initiative/Program

CUBES
Creating Understanding and Broadening Education through Satellites

CUBES (Creating Understanding and Broadening Education through Satellites) is a NASA Kennedy Space Center project designed to connect high school students who are interested in building a CubeSat satellite with the mentoring and testing resources that will help them successfully build, test, and potentially launch their CubeSat satellite.

KSC's Involvement
Opportunities and Risks!

Success

Failure

Glory Mission w/ Explorer-1, KySat1, and Hermes Cubesats
LSP Future Launches

OCO - Orbiting Carbon Observatory

RBSP - Radiation Belt Solar Probes

LADEE - Lunar Atmosphere and Dust Environment Explorer

GEMS - Gravity and Extreme Magnetism Small Explorer

IRIS - Interface Region Imaging Spectrograph

MAVEN - Mars Atmosphere and Volatile Evolution

NuStar - Nuclear Spectroscopic Telescope Array

MMS - Magnetospheric MultiScale

LDCM - Landsat Data Continuity Mission

GPM - Global Precipitation Measurement

TDRS K&L - Tracking and Data Relay System

JWST - James Webb Space Telescope
Questions?