FY 2009 Annual Report
ISS National Laboratory Education Project

Project Manager: Mark Severance
NASA-JSC
281-483-0384

PROJECT DESCRIPTION

The objective is to initiate projects which utilize ISS Program resources to provide formal and informal educational opportunities in the grades K-12, Higher Education (undergraduate and graduate University) and informal educational venues (museums, science centers, exhibits).

Projects within the portfolio may consist of experiments performed onboard the ISS using onboard resources (no upmass required) or payloads flown to ISS or integrated into ISS cargo vehicles (upmass required). Ground based activities that follow or complement onboard activities will also be incorporated into the portfolio. Examples: ground based control group experiments, flight or experiment following lesson plans, ground based activities involving direct interaction with ISS or ground based activities considering ISS resources in their solution set.

Mark Severance from the ISS Program Office was selected as Project Manager and started work in September 2009. A formal project plan is currently under development.

No dedicated funding in FY10. Funding from SOMD and Teaching From Space applied to the "Kids In Micro-g" and ARISS projects. In-kind support being received from Microsoft and the ARISS volunteer working group and AMSAT. $500K Funding to be obligated in FY11.

PROJECT GOALS

In keeping with intent of the ISS National Laboratory congressional direction, projects, which partner with external entities are a priority. These external agencies can be: other federal, state or local government agencies, commercial entities, universities, professional organizations or non-profit organizations. Emphasis will be given to partnering opportunities which can enable the greatest exposure of the project to the education community and the public, or reach a traditionally underserved demographic. Partnering opportunities can involve actual project funding or in-kind support and will be formalized with Space Act

Agreements. Some projects may be partially NASA funded or partnered with a NASA organization.

PROJECT BENEFIT TO OUTCOME (1,2, OR 3)

It is anticipated that projects in the portfolio will be applicable to all three Outcomes for Agency education activities and involve learners at all four levels of the education pyramid.

PROJECT ACCOMPLISHMENTS

Current Projects

- "Kids in Micro-g," Buzz Lightyear student experiment design competition
  - Student Target: Grades 5-8
  - Partner: Disney-Pixar, SOMD
  - Level & Outcome: Engage/Educate, Outcomes 2 and 3
- Microsoft Bliink website design contest
  - Student Target: Grades 9-12
  - Partner: Microsoft
  - Level & Outcomes: Engage/Educate, Outcomes 2 and 3
- Commercial Generic Bio-processing Apparatus (CGBA) Science Inserts (CSI)
  - Student Target: Grades: 6-9
  - Partner: Bio-Serve, Baylor College of Medicine
  - Level & Outcomes: Engage/Educate, Outcomes 2 and 3
- Amateur Radio on ISS (ARISS)
  - Student Target: Grades K-12
  - Partner: ARISS volunteer working group and AMSAT
  - Level and Outcome: Inspire, Outcome 3

Projects under Discussion with Potential Partners

- Microsoft Imagine Cup
  - Student Target: Undergraduate
  - Partner: Microsoft
  - Level and Outcomes: Engage/ Educate, Outcomes 1, 2, 3
- Purdue/Portland State Student Capillary Fluid Experiments
  - Student Target: Undergraduate
  - Partner: Purdue University, Portland State University
  - Level and Outcomes: Engage, Educate, Outcomes 2, 3
- ARISSat-1 Small Satellite Series for Student Experiments
  - Student Target: Grade 12, Undergraduate
  - Partner: AMSAT
  - Level and Outcome: Engage/Educate, Outcomes 2 and 3

- Educational Satellite Deployments from Space X Cargo Vehicles
    - Student Target: Undergraduate, Graduate
    - Partner: Space X, ISS Program, DoD
    - Level and Outcome: Engage/Educate, Outcomes 1, 2 and 3

PROJECT CONTRIBUTIONS TO PART MEASURES (*INCLUDE DATA PLUS EXPLANATION)*

Part Measures or other evaluation and metrics have not been conducted to date, due to the recent start up of the project. The ISS National Lab Education Project will utilize the Office of Education Performance Measurement (OEPM) OEPM system for evaluations.