

LRO Instrument EPO Plans

These are summaries of the current instrument plans, identifying partners, activities and products

LAMP

- Partners
 - Denver Museum of Nature and Science
 - Rocky Mountain PBS
- Activities
 - Public website
 - [R@dius](#) Outreach project (Research @ DMNS: Investigating and Understanding Science)
- Products
 - Curriculum
 - DVD on LROs search for water at the poles (by DMNS and Rocky Mt PBS)
 - Small museum exhibit for DMNS

Diviner

- Partners
 - UCLA Dept of Education (underserved students)
 - Bishop Museum
 - Science and Natural History Filmmaking School MSU
 - Mars Museum Alliance
 - Solar System Ambassadors
- Activities
 - Public website
 - Public participation in landing site selection
 - Pre and inservice teacher training via workshops
 - Distribution of visualizations thru museum alliance
 - Public lectures at UCLA JPL
- Products
 - Curriculum
 - Hi-Def documentary on Diviner (MSU)
 - Hands on table top exhibits for school, community groups, small museums (Bishop)
 - Diviner Litho

LROC

- Partners
 - Adler Planetarium and Science Museum
 - DePaul Space Science Center (NASA Broker/Facilitator)
 - Great Lakes Planetarium Association
 - Chicago Astronomical Society
- Activities
 - Create set of visualization and analysis tools for LROC data
 - Develop kit for educators and train amateur astronomers to train teachers
 - Develop education program to engage minority college students in independent research
- Products
 - Lunar Imaging Workbench (LIW)
 - Kiosk application for small planetaria
 - Interactive Moon Wall display at Adler
 - LROC Educator Kit

LOLA

- Partners
 - NASA AESP Program--NASA Explorer School Program (NES)
 - Smithsonian Institution National Air and Space Museum
 - Southeast Regional Clearinghouse (NASA Broker/Facilitator)
 - GSFC PAO
 - Solar System Exploration Education Forum-Planetary Data in the Classroom Initiative
 - GSFC Planetary Geodynamics Lab
- Activities
 - Revise lunar sample education activities
 - Train AESP educators on LRO and lunar sample activities for incorporation into NES
 - Train exceptional needs educators
 - LRO webcasts
- Products
 - 3-D models of lunar features using LOLA topo data
 - LRO materials for Lunar Sample educator material
 - GRIDVIEW modules utilizing LRO data
 - LRO visualizations

CRaTER

- Partners
 - Center for Integrated Space Weather Modeling (CISM)
 - Boston University College of Engineering
- Activities
 - Undergraduate and graduate student research on LRO-related projects\
 - Integrate LRO science into CISM summerschool
- Products

LEND

- Partners
 - AIP/APS
 - Society of Physics Students
 - MUSPIN
- Activities
 - Bring MSI faculty-student teams to GSFC to learn about LEND
 - Internships for undergraduate students
- Products
 - MSI will process LEND data

ESMD Funded Projects

- **Student Observation Network: Living and Working on the Moon (GSFC):** On-line inquiry-based education product where students use LRO data to select landing sites, locations for lunar resources, etc. SON format used by all NES, Aerospace Education Specialists (AESP), NEAT, etc. Principal work at GSFC, in-kind activities provided by JSC subject matter experts and JSC Digital Learning Networks.
- **Radiation and Human Space Flight for Middle and High School Classrooms (MSFC):** Hands-on activities, video, and a series of professional development workshops about radiation and challenges of protecting astronauts during spaceflight. Partners include Space Science Institute (distribution and professional development through Project ASTRO) and 4-Corners Alliance (pipeline to Native American educators).
- **Fundamentals of Lunar Education (GSFC):** Short course for educators on lunar robotics and delivery of previously developed workshop on lunar exploration. Training via digital delivery mechanisms and live workshops using MU-SPIN students as teaching assistants. Course will be offered through University of Maryland Baltimore County, NSTA, AESP, etc. Principal work performed at GSFC, Subject matter and IT expertise provided by ARC in Year 2.

ESMD Funded Projects

- **Moon Math Interactive Investigations (ARC):** Two additional math investigations for on-line mathematics education product under development through a grant from NES. Focus on planning a moon mission and designing a lunar habitat. Distribution leverages other on-line programs and partnership with Apple Learning Interchange. Professional development for NES, AESP and others offered through the NASA Digital Learning Network.
- **Girl Scouts Exploring in the 21st Century (JPL):** Uses ESMD content to develop and present training to Girl Scout leaders across the country. These leaders will train others in their home regions to present materials to Scouts.
- **A Field Trip to the Moon (MSFC):** In partnership with American Museum of Natural History, will develop ESMD content for materials to be used by AMNH in combination with New York City Public Schools.
- **Explore! Impact of Space on Human Health (JSC):** Development and distribution of hands-on, inquiry-based modules describing life in space, adaptation to extreme conditions, and how NASA counteracts these effects.
- **Lunarnautics (MSFC):** Participants will design, test, analyze and budget a space mission to the moon from inception to conclusion.