

Implementing the Vision 2nd Space Exploration Conference



LCROSS Mission Overview

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Advanced Capabilities Division

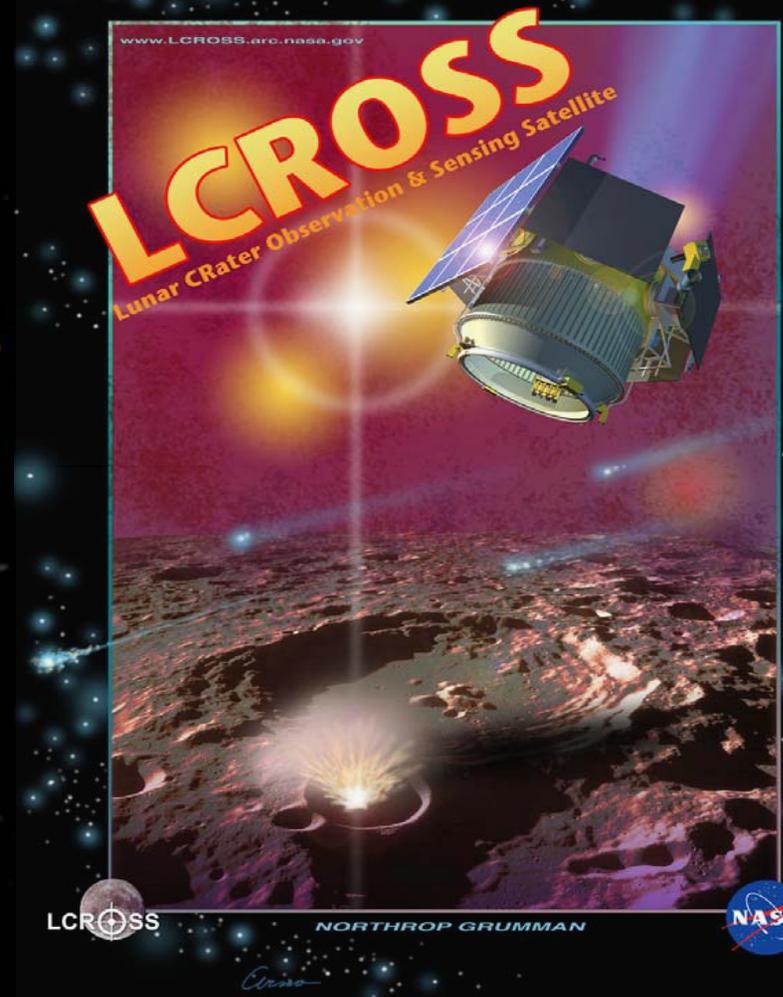
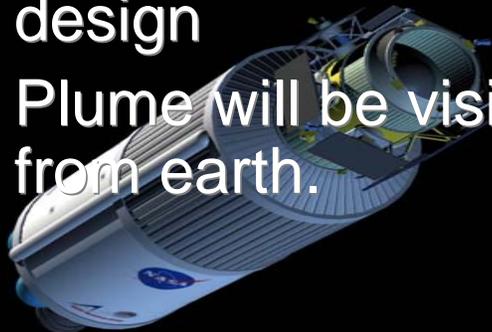
NASA, Exploration Systems Mission Directorate

December 6, 2006

LCROSS Mission Overview



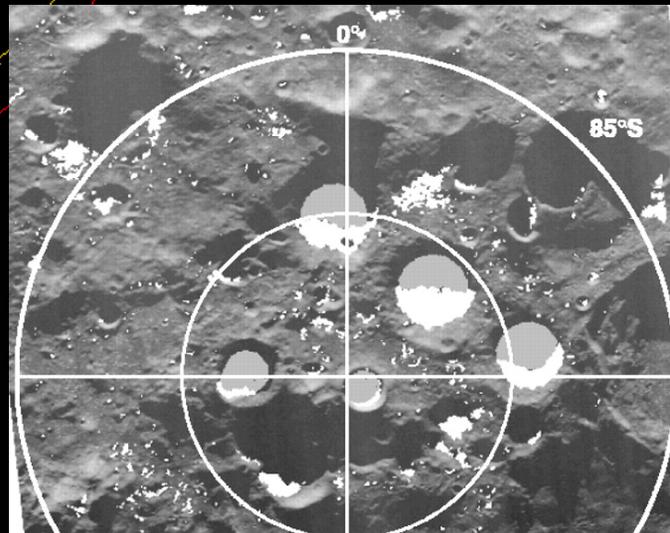
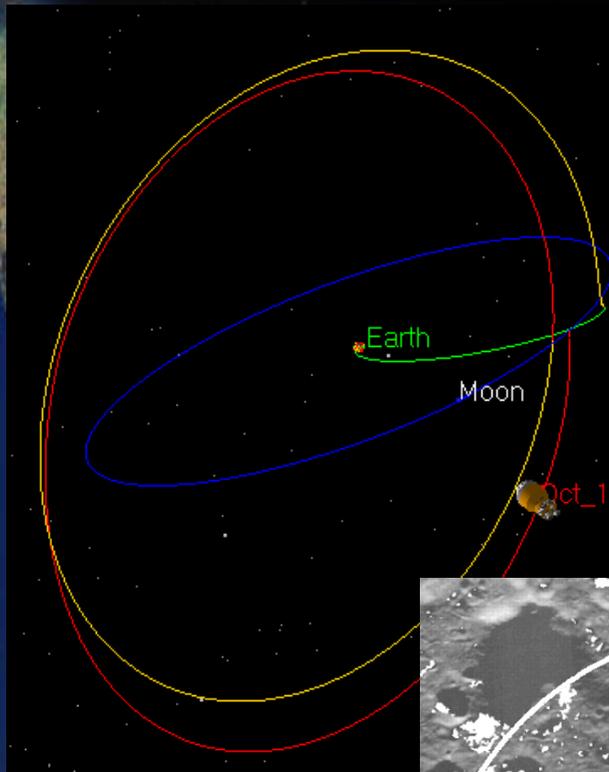
- Kinetic impactor to explore the potential of water ice in permanently shadowed region of the Lunar Surface
- Inexpensive mission of opportunity co-manifested with LRO.
- Simple, straightforward spacecraft and mission design
- Plume will be visible from earth.



Implementing the Vision

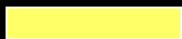
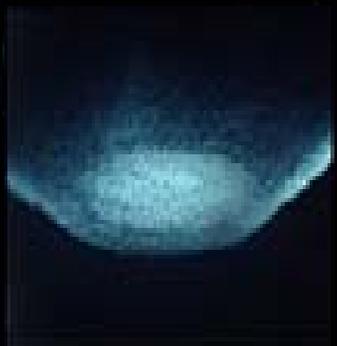


LCROSS Trajectory & Targeting

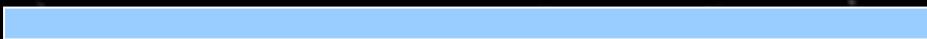


Implementing the Vision

Impact



Flash
0.5 min



Curtain
8.0 min



Crater
1.5 min

LCROSS Science Return



- Flash Photometry
- Visible Spectroscopy
- NIR Spectroscopy
- NIR Imaging
- Middle IR Imaging
- Visible Imaging

