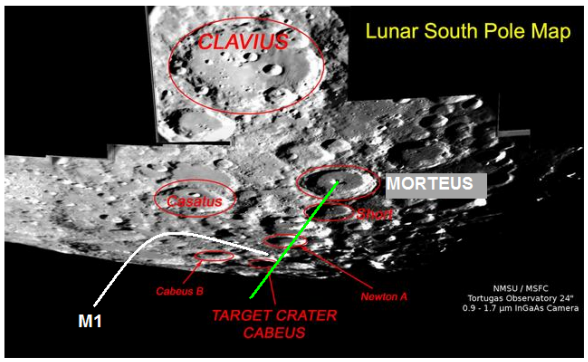
LCROSS Star Party Handout

Follow the sight line from Morteus to lunar mountain M1 near the south lunar limb



Synchronize your watch before you leave for your observing site:

USNO internet master clock -

http://tycho.usno.navy.mil/cgi-bin/timer.pl

Image credit: New Mexico State Univ., Tortugas Mountain Observatory,

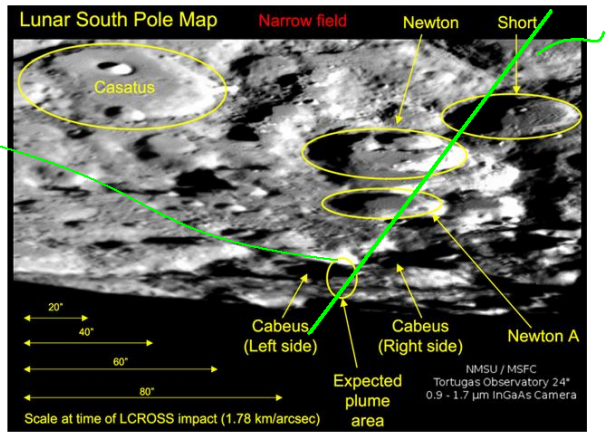
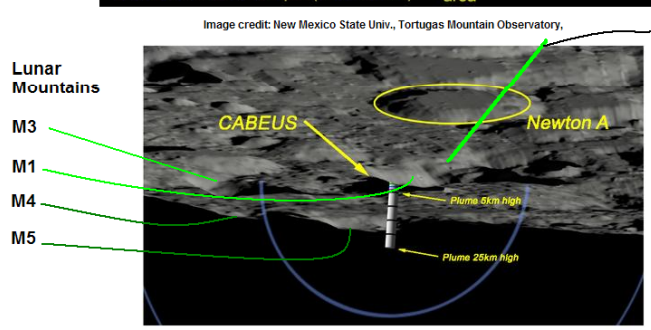


Image credit: New Mexico State Univ., Tortugas Mountain Observatory,



Spent Centaur booster with a mass of 2,200 kg impacts at 2.5 km/s and excavates a crater 20 meters in diameter and 1 meter deep. 200 metric tons (200,000 kg) of lunar soil is lifted above the lunar surface into a plume perhaps 10 km wide and 5km tall. The plume reflects sunlight. Predicted plume apparent brightness is 4 to 6 magnitudes per square arcsecond (mpsas). Surrounding lunar surface is about 3.8 mpsas. Plume should contrast against the dark shadow seen behind lunar mountain M1.

California – 100 km

NASA/Goddard Space Flight Center Scientific Visualization Studio and the LOLA Team

Impact site simulation

Centaur LOLA data. The measuring rod is 3.5 km wide. Each color stripe is 0.5 km wide and separated by 0.5 km. The lowest colored stripe is colored red, followed by yellow, green, blue and violet.

Image credit: NASA/Goddard Space Flight Center Scientific Visualization Studio and the LOLA Team.

Nominal timing for impacts:

Centaur = 9 Oct 2009 11:31:30 UTC SSC = 9 Oct 2009 11:35:45 UTC

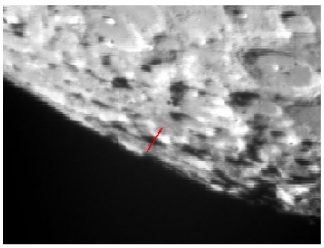
The impact time will be known to within one second approximately nine hours before impact. The updated impact time will be posted online at http://www.nasa.gov/lcross .

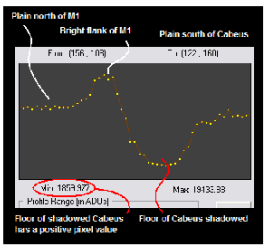
Live broadcast, including relayed images from the shepherding satellite on NASA TV via your cable or dish network or NASA TV on the internet:

http://www.nasa.gov/multimedia/nasatv/index.html

Visual observing magnification: 30 to 40 power per inch of aperature

Exposure time calibration - use line profile method to capture minimum level within Cabeus shadow area:





Share your images at the NASA LCROSS Citizen Science Site: http://apps.nasa.gov/lcross/