

Assessing the photogrammetric processing accuracy of a block of Lunar Reconnaissance Orbiter Camera (LROC) Narrow Angle (NA) images simulated from earth based satellite images

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Using satellite imagery of the Black Point lava flow in Arizona, we will construct a simulated block of images similar in image format and geometry to Lunar Reconnaissance Orbiter Camera Narrow Angle (LROC NA) images. The full resolution images will provide a reference data set, whereas the simulated LROC NAC images will have their sensor geometry information degraded to a similar level of error expected in real LROC NAC images. We will then use data that simulates the expected data from LRO Lunar Orbiter Laser Altimeter to control the images and photogrammetrically adjust the simulated LRO NAC images. We will compare the final adjusted data to the original earth based data to obtain an estimate of the precision and accuracy of LROC NAC stereo DTMs of the Moon.