Lunar Reconnaissance Orbiter Camera (LROC)
Exploring the Moon

LEAG
23 October 2012
Ryder crater
LROC Status – Nominal Stats as of 21 October 2012

- >400 Gbits image data per day!
- NAC
  - 582,758 <91° incidence angle
  - 1.4E14 reflectance measures
  - Over time NACs could map whole Moon at 0.5 to 2 m/p
- WAC
  - Thirty four complete global datasets, each with unique lighting geometries
- 50 km orbit for 2.17 years, fantastic datasets!!! Two months of 25 km periapse...
- New Orbit... new opportunities

Enlargement of Apollo 11 landing site, from 25 km periapse. All Apollo sites imaged and Luna sites imaged from low orbits. As well as thousands of key science targets.
NAC Dayside Coverage

Very common question! How much NAC coverage do you have? Actually not a simple question!

<table>
<thead>
<tr>
<th>LAT Range</th>
<th>Beta 0-45 noonish</th>
<th>Beta 45-80 sunset-rise</th>
<th>Beta 0-80</th>
</tr>
</thead>
<tbody>
<tr>
<td>(-45 to 45)</td>
<td>43 %</td>
<td>46 %</td>
<td>70 %</td>
</tr>
<tr>
<td>(-75 to 75)</td>
<td>50 %</td>
<td>54 %</td>
<td>76 %</td>
</tr>
</tbody>
</table>

Notes:
Emission Angle <30°
Until October 21, 2012

Think of beta angle as incidence angle at the equator
Tycho Crater Impact Melt Deposits

SE Flank
Tycho
Central crater 370 m diameter
SE Flank Tycho Crater
370 m diameter

700 m

75 m

Total drop 625/5500 m

22° max slope

370 m diameter
Raft is 300 m by 100 m
370 m diameter

22° max slope

370 m diameter
Lowest large flow front
Meanwhile on the north flank... image width about 6 km
Surely you jest!

The Moon is an incredibly inviting destination: esthetically, scientifically, and economically.

The Moon is a warm, friendly, and romantic world awaiting our return!