MODIS Instrument Status

• MODIS continues to operate nominally

• No anomalies observed during AMSR-E spin-up
  – Key telemetry temperatures (Focal plane, Instrument, BB) stable
  – No impact on scan-by-scan calibration of thermal bands
  – Supplemental SRCA spatial calibration on 2012/341 data collected – results in process

• Question: When will decision regarding the lunar roll maneuver requested by MODIS for 12/23/12 be made?
MODIS Geolocation Status

- No significant change observed in MODIS ground control point residuals after AMSR-E spin-up (see following slides)
  - Standard deviation in track and scan direction held steady (~40 m)
  - The number of matchups per day is smaller than nominal, but not so small to be concerned about
  - Residuals from MODAPS forward processing were delayed due to an unrelated production issue, but not expected to be significantly different than LANCE (near-real-time) results
- Visual analysis of geolocation quality of gridded land products after spin-up by Land QA and geolocation group did not detect any noticeable geometric artifacts (see following slides)
- No significant change in scan gap or overlap observed (outside of ~2 hour spin-up window)
- Our analysis of quaternions and embedded attitude agrees with John Nidhiry results (no significant concerns)
- We will continue to closely monitor MODIS control point residuals over the next few weeks
- Request: Please notify the MODIS geolocation team if there are deviations from current AMSR-E and/or Aqua attitude “new normal”
MODIS Control Point Residuals

Control point residuals in nadir equivalent units (50 m = 15 arcsec @ 705 km)

<table>
<thead>
<tr>
<th>Data-day</th>
<th>338</th>
<th>339</th>
<th>340</th>
</tr>
</thead>
<tbody>
<tr>
<td>Matchups</td>
<td>210</td>
<td>155</td>
<td>140</td>
</tr>
<tr>
<td>Track Mean (Stdev)</td>
<td>62 m (40 m)</td>
<td>48 m (40 m)</td>
<td>51 (42 m)</td>
</tr>
<tr>
<td>Scan Mean (Stdev)</td>
<td>1 m (40 m)</td>
<td>0 m (45 m)</td>
<td>1 m (43 m)</td>
</tr>
</tbody>
</table>

No significant change in MODIS control point residuals after AMSR-E spin-up at 15:12z on Data-day 339 (based on LANCE near-real-time data)
MODIS Image Geometry

Before: 2012/324  07:00z

After: 2012/340  07:00z

Band 2 (NIR)   31.9 N, 88.8 E

Image geometry after spin-up still excellent