Outer Planets Status

• PSD has been directed to conduct its first *consolidated* senior review
  – Review covers Cassini, LRO, Mars Odyssey, MER, MEX, and MRO for FY13-14 operations plan and budget
  – Proposals detailing two options (baseline plus 85% option) are due May 30
  – Review panel will provide written questions to projects, which will be answered at face-to-face briefing
  – PSD expects to hold this consolidated SR every two years

• Staffing changes:
  – Jim Adams, PSD Deputy Director, has accepted a position with OCT
  – Mary Mellott, Juno Program Scientist, retired in December
  – Henry Throop has started a detail at HQ and has taken over as Discipline Scientist for CDAPS

• Concept Study Reports for Discovery were recently submitted
  – As everyone knows, two of the three concepts in competition are outer planets missions
Cassini Solstice Mission

• Overall Cassini status is positive with a healthy spacecraft
  – Cassini Plasma Spectrometer (CAPS) has returned to service
  – We just flew by Enceladus!

• Team is working on proposal for senior review

• Twelve Participating Scientists were selected just after the last OPAG meeting, fulfilling a 22-year old promise
  – We are currently competing the second round of Participating Scientists via CDAPS
# New Cassini Participating Scientists

<table>
<thead>
<tr>
<th>PI</th>
<th>Institution</th>
<th>Title</th>
<th>Discipline</th>
</tr>
</thead>
<tbody>
<tr>
<td>Carrie Anderson</td>
<td>GSFC</td>
<td>Aerosol and Ice Properties of Titan’s Stratosphere from a Combined Cassini CIRS and DISR Analysis</td>
<td>Titan stratosphere</td>
</tr>
<tr>
<td>Alberto Adriano</td>
<td>INAF-IASF (Italy)</td>
<td>Seasonal variability of the chemical composition of Titan’s upper atmosphere</td>
<td>Titan atmosphere</td>
</tr>
<tr>
<td>Jason Barnes</td>
<td>Univ. ID</td>
<td>Distribution, Composition, and Texture of Titan’s Evaporites</td>
<td>Titan evaporites</td>
</tr>
<tr>
<td>Gianrico Filacchione</td>
<td>INAF-IASF (Italy)</td>
<td>From rings to satellites: a VIS-IR spectrophotometric investigation of water ice and cromophores distributed on Saturnian system icy bodies</td>
<td>Icy satellites</td>
</tr>
<tr>
<td>Matthew Hedman</td>
<td>Cornell</td>
<td>The Seasonal and Temporal Evolution of Saturn’s Faint Rings</td>
<td>Rings</td>
</tr>
<tr>
<td>Brigette Hesman</td>
<td>GSFC</td>
<td>Cassini/CIRS Studies of Saturn’s Storm Systems</td>
<td>Saturn storms</td>
</tr>
<tr>
<td>Carly Howett</td>
<td>SWRI</td>
<td>Thermal Mapping of Saturn’s Icy Satellites</td>
<td>Icy satellites</td>
</tr>
<tr>
<td>Ozgur Karatekin</td>
<td>Royal Obs. of Belgium</td>
<td>Seasonal and Temporal Variations of Titan’s Seas and Atmospheres</td>
<td>Titan</td>
</tr>
<tr>
<td>Panayotis Lavvas</td>
<td>Univ. of Reims (France)</td>
<td>Aerosol properties in Titan’s upper atmosphere</td>
<td>Titan atmosphere</td>
</tr>
<tr>
<td>Carol Paty</td>
<td>Georgia Tech</td>
<td>Seasonal Variability of Saturn’s Magneto-sphere</td>
<td>Saturn magnetosphere</td>
</tr>
<tr>
<td>Paul Schenk</td>
<td>LPI</td>
<td>The Snowpack of Enceladus</td>
<td>Enceladus craters</td>
</tr>
<tr>
<td>Jason Soderblom</td>
<td>Univ. AZ</td>
<td>Organics on Titan’s Surface</td>
<td>Titan surface organics</td>
</tr>
</tbody>
</table>
Three candidates (JUICE, IXO, LISA) remain in competition for ESA’s L-class mission opportunity
   – Further information in tomorrow’s JUICE briefing
An ESA AO will follow soon thereafter for downselected mission
   – If selected, JUICE team plans AO release in summer 2012
NASA and ESA have begun deliberations to work out an agreement for US-provided instruments on the JUICE payload
   – NASA’s effort to understand and scope its level of investment would certainly benefit from any updated teaming arrangements you can provide to me…
Descoped Europa Trio - Status

• Pursuant to Decadal recommendation, NASA is adapting the Europa mission concept to find major cost reductions to the Europa mission concept
• Intent of the Trio study (orbiter, lander, flyby) is to define and validate a set of minimum concepts that demonstrate missions exist at the lower end of the cost spectrum that still provide significant science return
• Last fall you heard briefings on the completed orbiter and flyby concepts; today you will hear about the lander
• Results of the trio (and their independent review results) will be considered with many other inputs as NASA determines the next steps
Outer Planet Flagship Budget

• FY12 budget allocated $43M for outer planet flagship missions
  – Budget acknowledges that descope studies (the Trio) are near completion and requests study report be submitted to Appropriations Committee
  – Budget directs that NASA continue working on “detailed definition of an appropriately descope flagship mission…”

• We intend to follow the law
  – We have spent $4M of the $43M on the descope Europa trio study (first sub-bullet above)
  – We currently have permission to spend an additional $5M of detailed definition of a single mission (second sub-bullet above)
Repositioning the Outer Planets

• With the release of the Decadal Survey and the developing budget environment, the issues have become
  – How do we create mission opportunities for destinations in the outer solar system?
  – How do we best position the outer planet community to respond to those opportunities?
• We need to mature key elements including science definition and prioritization (including broad community “buy in”), mission concepts, technology identification and investment, Decadal Survey interpretation and implementation, policy development
• What is OPAG doing in these areas? What is NASA? What should they be doing?
• The next Discovery AO is currently scheduled for release in FY15. What are we doing in FY12-14 to prepare for it?