

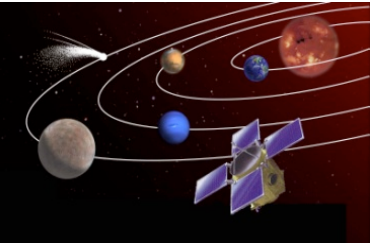
Overview of the AO & Science Evaluation Process

Michael New

Lead Discovery Program Scientist

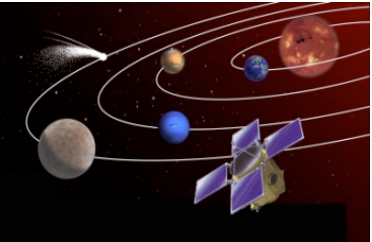
NASA/HQ

Basic AO Facts



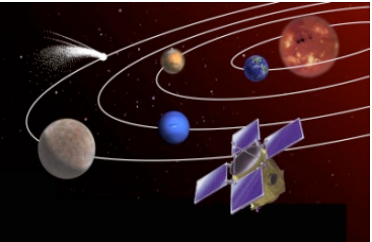
- Complete space-flight investigations
 - MoOs will be solicited through SALMON if funding available
- AO based on “Standard AO”
- Targets: Any solid body in the Solar System except the Sun and the Earth
 - Mars and the Moon are both acceptable targets
 - Investigations of extra-solar planets is no longer allowed.

Cost and Schedule in the AO



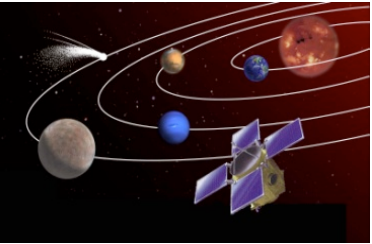
- Base cost cap = \$425M (FY10)
 - Standard launch services are no charge to cost cap.
 - Based on inflated value of last cost cap
- 9 month Phase A, \$3.0M (RY)
 - Clock starts from expected award of Phase A contracts
- Launch Readiness Date NLT 31 December 2017
- The minimum reserve level of 25% is now assessed against the Phase A-E cost rather than the Phase A-D cost.

Education & Public Outreach in the AO



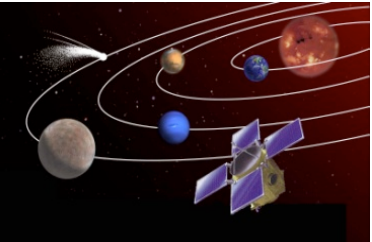
- Core E/PO activities must be at least 1% of base PI-Managed Mission Cost.
 - Core E/PO activities may extend up to 1 year past end of prime mission.
 - Student Collaborations (SC) are optional but if proposed, will receive up to 1% of base PI-Managed Mission Cost as incentive
 - Incentive won't exceed actual cost of SC.
- An E/PO plan is *not required* in the Step 1 proposal

NASA-Developed Technology in the AO



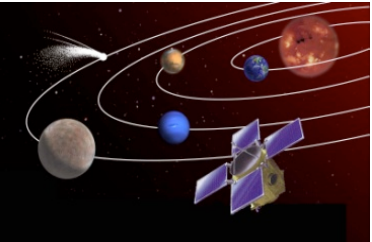
- Three NASA-developed propulsion-related technologies are offered with incentives:
 - NEXT solar electric propulsion system
 - AMBR advanced bi-prop engine
 - Aerocapture h/w and s/w
- The Advanced Stirling Radioisotope Generator is offered as GFE.
- NASA will ensure that if one of the above is selected, it will be at TRL 6 in time.
- Proposers may choose none or one of the above technologies

Launch Approval in the AO



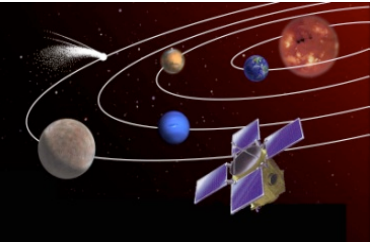
- Use of radioactive materials incurs extra costs for NEPA, NSC/PD-25, RCP, Risk Comm, special LV processing.
- For investigations proposing to use ASRGs, *only \$20M (FY10) will be charged to the mission.*
 - For other types of missions, charges are detailed in AO.

Telecommunications in the AO



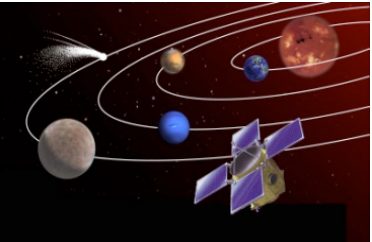
- All investigations must conform to SFCG Recommendation 23-1 for use of X-band communications for science data.
 - Bandwidth use <12 MHz in deep space, <8 MHz at Mars
 - If non-conforming, must use Ka-band for science data
- For routine communication, only a single 34 m antenna may be used.

Forthcoming clarifications

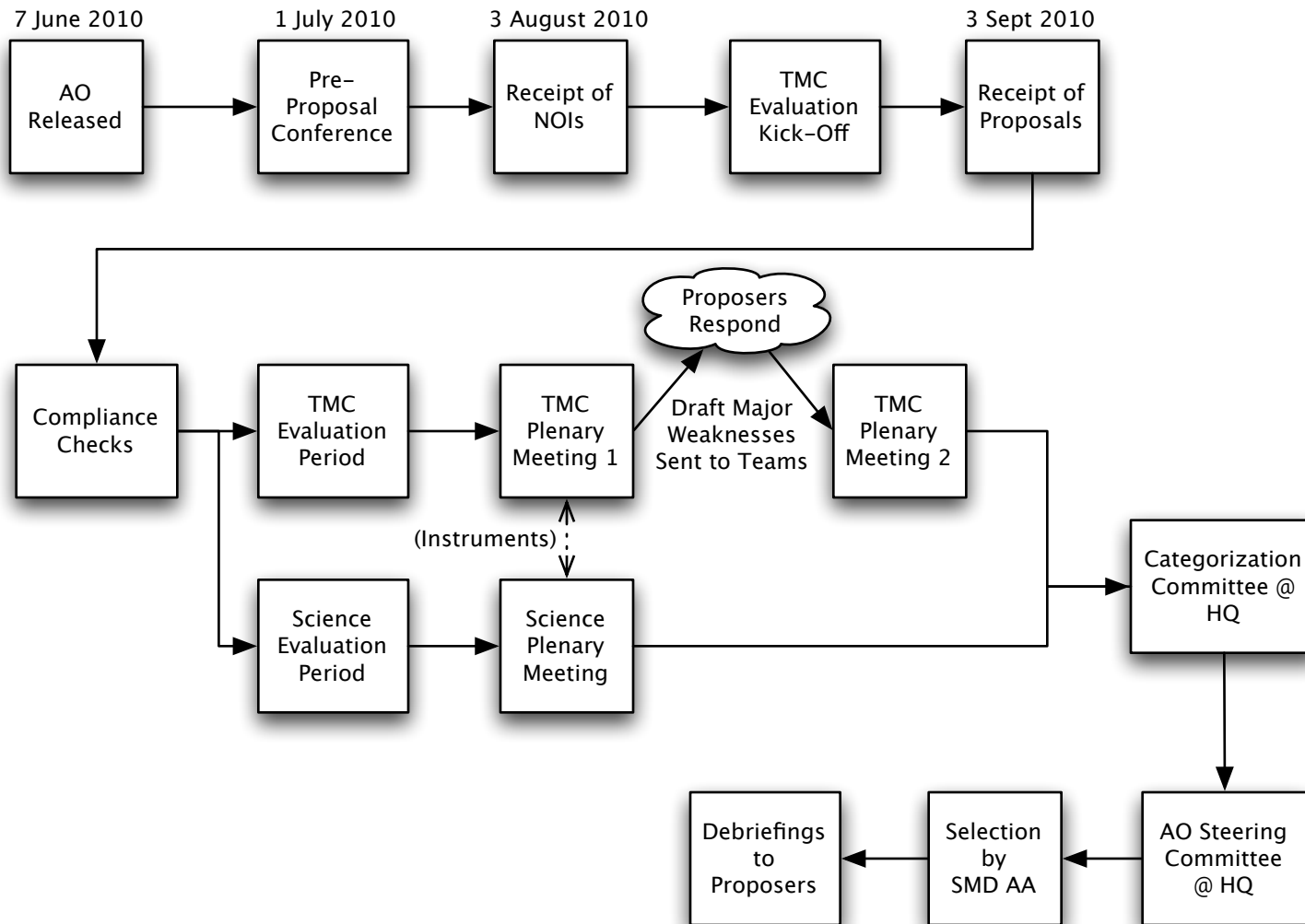
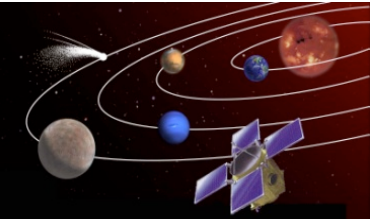


- Three clarifications to the AO will be released shortly
 1. The date at which two fueled and qualified ASRGs will be available for integration at KSC will be changed to November 2014 to correct a typo.
 2. Requirement 89 will be modified to make it explicit that the NASA-developed Technology Infusion Plan (Appendix J.13) should include analyses demonstrating that the proposed use of ISP technology meets the minimum demonstration guidelines for that technology.
 3. Ten yes-no-maybe questions about mission and spacecraft design relevant to launch approval will be added to the cover page.

Evaluation Process

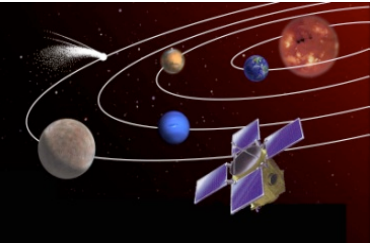


Standard Evaluation Process



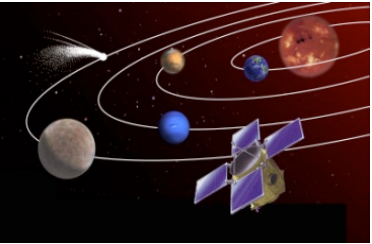
April 2011

Panel Composition



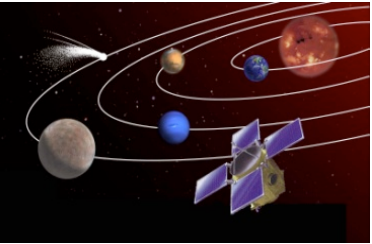
- Both panels will consist of non-conflicted members of the science/engineering community.
 - If no US scientists with relevant expertise are without conflicts of interest, then non-US reviewers will be sought (ITAR...)
 - TMC Panel will have specialists for all major s/c subsystems, cost, management, and schedule

Evaluation Criteria & Weighting



- Evaluated by Science Panel
 - Scientific Merit (40%)
 - Scientific Implementation Merit (30%)
 - Both are rated as E, VG, G, F, P
- Technical, Management, & Cost Feasibility including Cost Risk & Planetary Protection (30%)
 - Rated as low, medium, or high risk

Selection and Notification



- The Selecting Official bases selection on the combined reviews, the categorization, and *other issues such as programmatic needs or budgetary considerations*
- Selected PIs will be notified by phone and then by letter.
- All teams are entitled to a debriefing, either in person or by telephone.
 - Written debriefs will be provided to the teams in concert with the face-to-face or telephonic discussions.

Questions? Comments?

