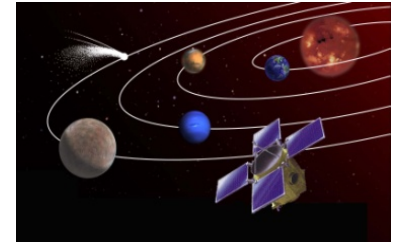


# Science Evaluation Process 2014 Discovery AO

Michael H. New, Ph.D.  
Lead Discovery Program Scientist



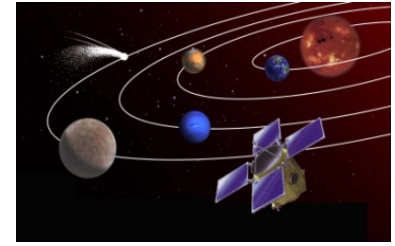
# Basic Facts



- ◆ Standard approach will be used.
- ◆ Form B preliminary weaknesses will be sent to proposers for (limited) responses.
- ◆ Conflict-of-Interest rules will be followed strictly.



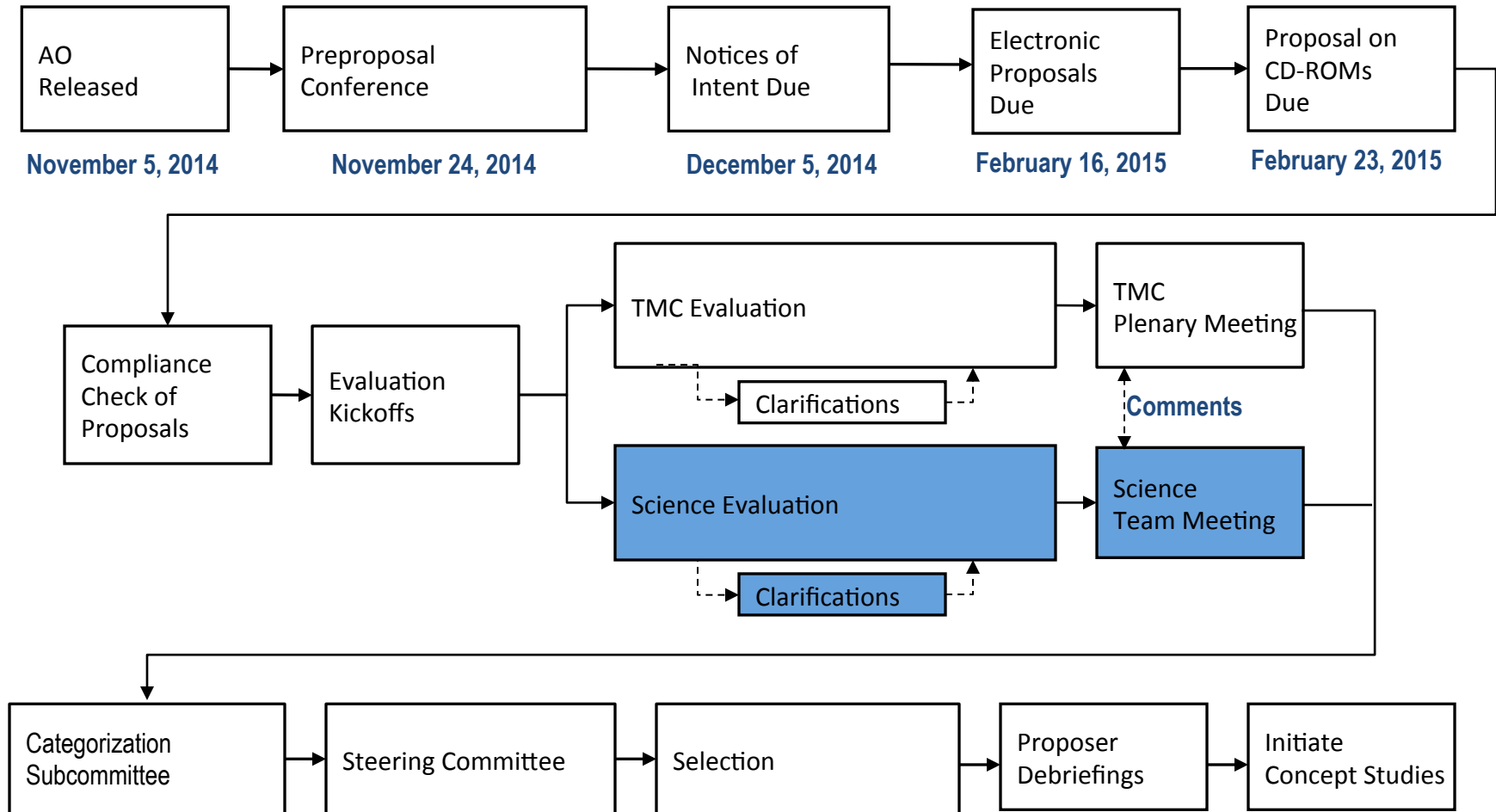
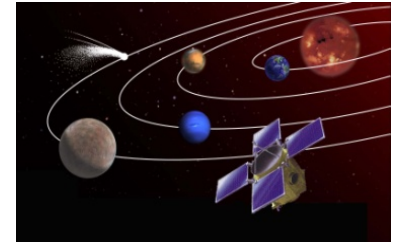
# Conflict of Interest Rules



- ◆ All proposals will be considered to be in direct competition with each other.
  - PIs, Co-Is, and team members of one proposal cannot review any proposal.
  - Anyone at the same institution as a PI or hardware-providing Co-I cannot review any proposals.
- ◆ Non-US persons will likely have to be used as panel reviewers.

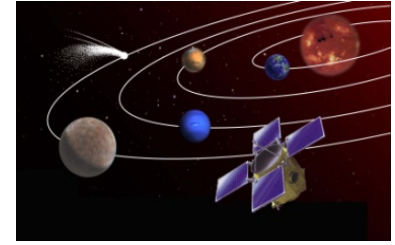


# Evaluation Process





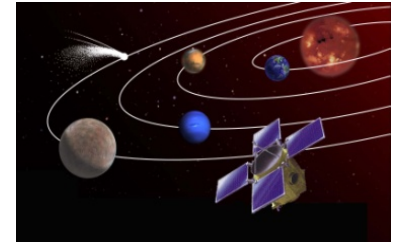
# Evaluation Criteria & Weighting (AO §7.2.1)



- ◆ 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



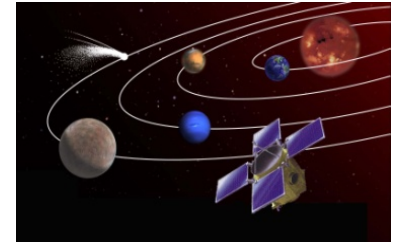
# Scientific Merit (AO §7.2.2)



- ◆ Essentially the relevance and potential impact of the proposed investigation.
- ◆ Four equally-weighted sub-factors:
  - Compelling nature and scientific priority of the proposed investigation's science goals and objectives.
  - Programmatic value of the proposed investigation.
  - Likelihood of scientific success.
  - Scientific value of the Threshold Science Mission.



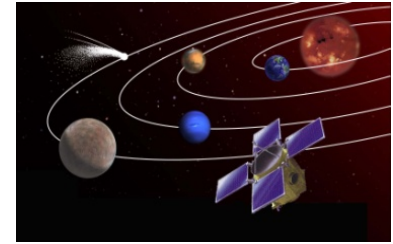
# Scientific Implementation Merit (AO § 7.2.3)



- ◆ Will the data proposed to be collected answer the science objectives? Will the instruments proposed provide the needed data?
- ◆ Seven equally-weighted sub-factors:
  - Merit of the instruments and mission design for addressing the science goals and objectives.
  - Probability of *technical* success.
  - Merit of the data analysis, cartography, data archiving plan, and/or sample analysis plan.
  - Science resiliency.
  - Probability of science *team* success.
  - Merit of any SEOs.
  - Merit of any TDOs.



# Categorization (AO §7.1.2)



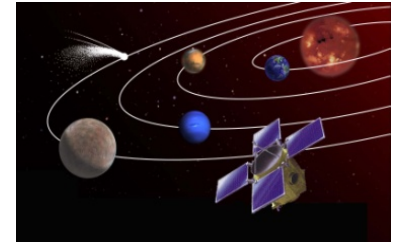
- ◆ Category I Well conceived and scientifically and technically sound investigations pertinent to the goals of the program and the AO's objectives and offered by a competent investigator from an institution capable of supplying the necessary support to ensure that any essential flight hardware or other support can be delivered on time and data that can be properly reduced, analyzed, interpreted, and published in a reasonable time.
- ◆ Category II Well conceived and scientifically or technically sound investigations which are recommended for acceptance, but at a lower priority than Category I.
- ◆ Category III Scientifically or technically sound investigations which require further development. Category III investigations may be funded for development and may be reconsidered at a later time for the same or other opportunities.
- ◆ Category IV Proposed investigations which are recommended for rejection for the particular opportunity under consideration, whatever the reason

NASA usually only selects and funds Cat I investigations for Phase A studies.





# Selection and Notification (AO §7.1.3)



- ◆ 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 debriefings will be provided to the teams in preparation for the face-to-face or telephonic discussions.