

**Presentation to the
NASA Advisory Council (NAC)**

Competition Model

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Summary of Competition Study



Purpose:

- To review NASA's current process for competing assignment of activities within NASA
- To identify ways to improve efficiency of the competitive process

Study conducted by reviewing current competitive activities within NASA

- Guidance provided in Announcements of Opportunity (AOs)
- Proposal depth
- Interviewing individuals who presently participate in competitive actions, or formerly served in such roles:
 - Principal Investigators (PIs)
 - Associate Administrators (AAs)
 - NASA Chief Scientists
 - Center Directors
 - University proposers.

Summary of Observations



- Competitive process is valuable and effective means for obtaining the best science missions, instruments, and investigations
 - National Academy of Sciences Decadal Survey Reviews play crucial role in setting priorities for Science Mission Directorate (SMD) missions
- Proposal evaluation process is well regulated, thorough, and informative
- NASA depends on innovation to expand horizons of science and exploration and remain competitive in global arena
- Competitive process has become complicated and expensive as a result of desire to improve probability of mission success and meeting cost and schedule
- Community-wide problem and recurring theme throughout interview process-- researchers are increasingly under pressure to propose to multiple opportunities with little return on invested effort
 - NASA/JPL researchers uniquely impacted because they are generally precluded by other agencies from competing for external funding sources [e.g., National Science Foundation (NSF), Environmental Protection Agency (EPA), etc.]

Summary of Recommendations



- Consistent with advice from recent Decadal Surveys, maintain balance of competitive and directed missions that focus on National and Agency objectives
 - Maintain series of Flagship and strategic missions, assigned to the Center/JPL with critical expertise
- Coordinate release of AOs to prevent concurrent or nearly concurrent release of multiple AOs, especially related AOs
- Develop list of unique key capabilities across Agency that proposers can use at no cost if they require one or more of the capabilities; commit to maintain and fund certain key capabilities (TCAT, Capability Management, BSA)

This study is another indication of NASA's strong desire to improve its processes, to become more efficient, and to remain a leader in space and aeronautics research. The conclusions here build upon the results of previous studies to motivate and describe actionable steps that can be taken to maximize the efficacy of competition in NASA's science, technology, and robotic mission programs.