



AO Simplification

Paul Hertz

Senior Advisor, Science Mission Directorate
NASA Headquarters
paul.hertz@nasa.gov

Brad Perry

Head, Science Support Office
NASA Langley Research Center
raleigh.b.perry@nasa.gov

aosimplify @nasa.gov



The Status Quo

- **Some Positive Aspects**

- SMD AOs contain a lot of instructions and a lot of requirements, both explicit and implicit, aimed at ensuring standardized submittals and evaluation at the same expectation level.
- Proposal teams presently know what is expected to write an acceptable proposal that meets these standard requirements for all AO's and need only learn the particular new elements of the AO to write a proposal: cost cap, NLT launch date, ELV limitations, etc.
- To reduce risk, the SMD evaluation and selection process expects a certain level of maturity in a concept before it can be selected to enter Phase A.
- All competent proposers must have done the work needed to present a good proposal and generally welcome a comprehensive evaluation that assures a fair and impartial selection of the best proposal.

- **Some Negative Aspects**

- Proposal teams expend a lot of energy, time, and money developing a mission concept to the expected level of maturity in order to demonstrate mission feasibility in the proposal.
- It may not be readily understood or agreed that all of the AO requirements are completely necessary to assure a good selection; unnecessary requirements need to be eliminated.
- Too much standardization may unduly constrain innovative submittals or force all to² look too much alike.



Objectives

- Simplify the proposal process to the extent possible to eliminate any unnecessary rules/requirements in the AO, and streamline the way that scientific and technical information is provided to NASA.
- Reduce or eliminate the amount of work that the proposing team has to do over and above what they would have to do anyway to have a credible response.
- Revise the AO/evaluation/selection process, as required, to reduce overall burden to the proposing community, the reviewing community, and NASA while maintaining or improving the present quality.



Constraints

The proposal process must still yield the following

- NASA must be able to readily evaluate the science merit of proposed missions (through science peer review) to guide selection.
 - NASA wants to select the most scientifically compelling missions.
- NASA must be able to readily evaluate the feasibility of proposed missions (through TMC review) to guide selection.
 - NASA wants to select missions that can be developed within the technical, cost, and schedule constraints.
- Mission teams, when selected, must be fully prepared to successfully conduct Phase A mission concept studies.
 - NASA wants to shorten the selection and downselection process as much as possible.



Methodology

- Concentrate first on PI-led mission AOs.
 - Instrument AOs are more complex; improvements can flow from lessons learned on mission AOs.
- Solicit community feedback and input.
 - Call for data and input from community via email to all recent AO proposers.
 - Community information sessions at DPS, AAS, LPSC.
 - Further calls for input to government, industry, and academia via FedBizOps announcement.
 - Set up dedicated email address to receive community input.
 - Lessons learned workshops in Spring 2008.
- Review results of two prior efforts at AO Simplification.
 - 2003 SMEX AO with “TMC-lite.”
 - 2005 internal review of standard AO Appendix B.
- Assemble internal working group to formulate recommendations and assess impacts.
- Present report to AA/Stern for decision.
 - First impact would be AOs in late 2008.



Trade Space

Where is some of the available trade space?

- Technical data input through charts/drawings/tables with minimized narrative
 - Rewrite AO to allow more abbreviated submits.
 - Cleaner compliance checks.
 - Possible impacts: less work by proposer writing proposal, but possibly less insight by NASA into mission concept and more difficulty in evaluation.
- Allow less standardization and formality in the proposals so that existing concept development information can be submitted for consideration.
 - Less cost and time for proposers.
 - Possible impacts: more difficulty in making standardized and level reviews.
- Expect/allow team to spend less effort before proposal.
 - Lower technical requirements in AO, lower evaluation standards.
 - Possible impacts: less work by proposer developing concept, less insight by NASA into mission concept, higher probability that mission is not feasible (within constraints), requires longer Phase A or third step.
- Select on science first then develop technical concept
 - Essentially no technical requirements in AO, short submit.
 - Possible impacts: less work by proposer developing concept, no insight by NASA into mission concept feasibility, higher probability that selected science mission is not feasible (within constraints), requires additional pre-Phase A period or third step₆



Questions

- What is good and needs to be retained with the status quo?
- What are the biggest problems with status quo? Specify the impact; time, money, effort.
- What are the simplest solutions to improve status quo?
- Where should NASA relax its constraints?
- What should be the most important consideration(s) for NASA (e.g., reducing time, cost, effort of submittal, ensuring fair competent evaluation, etc)?
- If you were writing the AO and designing the solicitation/ evaluation/ selection process, what would you retain and/or change?

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