

THE NEW MILLENNIUM PROGRAM: FAST-TRACK PROCUREMENTS

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ABSTRACT

The National Aeronautics and Space Administration's (NASA's) New Millennium Program (NMP) has embarked on a technology flight-validation demonstration program to enable the kinds of missions that NASA envisions for the 21st century. Embedded in this program is the concept of rapid mission development supported by a fast-track procurement process. This process begins with the decision to initiate a procurement very early in the program along with the formation of a technical acquisition team. A close working relationship among the team members is essential to avoiding delays and developing a clear acquisition plan. The request for proposal (RFP) that is subsequently issued seeks a company with proven capabilities, so that the time allotted for responses and the length of proposals can be shortened. The fast-track procurement process has been demonstrated during selection of NMP's industrial partners and has proved to work.

1. INTRODUCTION

The goal of the New Millennium Program is to enable frequent, affordable scientific missions in the 21st-century by identifying, developing, and flight validating advanced, breakthrough technologies that can significantly contribute to lowering life-cycle costs and increasing the scientific return of these future missions. In addition to validating key enabling technologies, the NMP will pioneer new ways of teaming with industrial and academic institutions. It will develop and implement acquisition and management practices that will embody a revolutionary approach to developing spacecraft and instruments for the future.

1.1 New Way of Doing Business

At the inception of the NMP, when it became apparent that existing JPL business-acquisition processes of selecting industrial partners would prove too costly and time consuming, the NMP set about looking for methods to streamline the partner-selection process, while ensuring these methods stayed within established legal norms. To this end, we conducted a series of meetings with industrial organizations, our prime objective being to solicit their opinion as to how NMP should execute its partner-selection process.

The two primary issues that concerned industry were, first, that they did not want to have large proposal teams tied up for a long period of time charging to bid and proposal or overhead accounts, and second, that they wanted rapid feedback to the proposals they submitted. The fast-track procurement process described below was developed and implemented by JJ], to address both these concerns.

2. PI, ANNINGPHASE

2.1 Formation of Procurement Team

From the very outset of a procurement---when it was determined that one would be initiated---a procurement team was formed comprising the relevant technical engineers, who would specify and receive the product or service, and procurement negotiators, who would acquire the product or service. This early team formation allowed the technical engineers to understand the procedures that had to be followed by the procurement/acquisition department (for instance, formats, required documentation, schedules), while giving the procurement negotiators the opportunity to make better recommendations as to type of contract m potential suppliers, as well as to establish key milestones.

The team developed a Work Breakdown Structure for each potential supplier, which was used to develop a probable cost estimate. They also developed a procurement plan and a bidders list, established evaluation criteria and scoring data, began preparation of a cover letter, supporting documentation, and established release dates, selection dates, and dates for being 'on contract'. It was found to be extremely important to adhere to these scheduled dates, especially the ones early in the acquisition process, since they had the potential of affecting our overall approach the most.

2.2 Draft Statement of Work (SOW)

Also during this period, a draft SOW was prepared that was directed toward the contractor's ability to perform, rather than dictating a tight build-to-specification; industry partners were sought based on their past performance capability rather than on their ability to respond well to our proposals.

The draft SOW was transmitted electronically to all those on the bidders' list, as well as placed on the JJ)]. electronic procurement bulletin board. A short, one-week period was allowed for the bidders to recommend changes and for us to answer any questions they had. Some revisions were made by the procurement/acquisition team to the draft SOW based on bidders' recommendations. Every comment, question, or recommendation by a bidder was addressed, however, at a bidders' conference that was held within a week of the deadline for responses to the draft SOW, and conducted as an open forum where any question was entertained. After the bidders' conference, final revisions were made to the procurement proposal package

Concurrently with the bidders' conference, a legal and contracts review of the draft procurement package took place within the procurement/acquisition department at JPL. Instead of waiting until the final version of the procurement package was ready, a traditional JPL business policy, it was decided to save time by reviewing the draft SOW, and when final revisions were made, to reintroduce them for review, with the changed portions being concentrated upon. This process took 4 to 5 weeks and required intense management by both the technical and procurement representatives to make sure that all schedule milestones were met.

3. IMPLEMENTATION PHASE

3.1 Request for Proposal

An RFP was released within 7 days of the bidders' conference, and to facilitate rapid dissemination it was sent via overnight-mail. At the same time, the RFP was placed on JPL's electronic procurement bulletin board to ensure its widest possible distribution. All potential respondents were advised that any questions they had either had to be faxed or sent electronically to JPL's procurement/acquisition department, and that answers to their questions would appear on the JPL electronic bulletin board at 8 a.m. the following day. This policy materially reduced the time needed by JPL to answer questions, and also prevented the need for extensions to the time allotted for response.

All respondents to the RFP were expected to adhere to a page limit; in the case of the RFP released for a spacecraft developer, NMI accepted a 10-page response. One of those pages was required to contain a high-level cost estimate, with the stipulation to proposers that all those selected for the final, competitive range would have to provide a complete cost proposal during JPL procurement-team visits to their sites. This approach saved considerable time and effort for the proposers, since they did not have to generate a complete cost-review cycle description unless they had been chosen for the competitive range and therefore were being seriously considered.

We also instructed all proposers to review the JPL Procurement Terms and Conditions guidelines, and stipulated that during our fact-finding visits to their sites, while the firms were still in competition, all exceptions to these Terms and Conditions would have to be raised with a position being agreed upon by both parties.

3.2 Establishment of Competitive Range

Responses to the RFP were provided to each of the evaluation team members for individual review. The strengths and weaknesses of each proposal were identified and a numerical score was assigned based on its merits. Then each member of the team was asked to identify the proposals he or she had ranked as the top three, since a goal had been set by the team leader of having no more than three proposers in the competitive range. The evaluation team reached a consensus on which were to be considered the top three proposals, after which the cost information submitted by the selected proposers

were reviewed for cost realism. A management review council reviewed all proposals submitted, placing an emphasis on those in the competitive range. Site visits were announced and questions were prepared for each site visit.

4. SELECTION PROCESS

Visits to proposer's sites were limited to four hours each. The purpose of the visit to each site was to verify strengths and weaknesses, not to accept new proposal information. Detailed cost proposals were received and forwarded to price and cost analysts, while the procurement team verified, via telephone, past performance of the proposer. Each procurement/evaluation team member was then required to rescore the proposer on the day they visited their site.

At completion of the site visits the team agreed upon a final score for each proposer and prepared a source-selection package. The source-selection official was briefed and awarded the contract to the highest-ranked bidder. Upon notification to the proposer/contractor of their selection a negotiation date was set. We did not use a letter contract, but rather devoted our efforts toward developing a negotiation plan so as to negotiate the contract as rapidly as possible.

5. CONCLUSION

All aspects of the partner-selection process were accelerated by personal contact, and by establishing and holding to a schedule. Developing an aggressive acquisition schedule and not allowing any deviation from it was key to shortening the process. The very early formation of the technical/procurement team eliminated many mistakes in the preparation of necessary documentation. By using draft SOWS and conducting a bidders conference we were able to get much valuable information from industry, and were able to address all their comments and questions. Industry asked for performance-based RFPs and the ability to respond with short, limited-page documents, and we accommodated them by our new, streamlined acquisition policy.

This partner-selection process was used by NMP during two different procurement cycles. First, it was used to select members for our integrated product development teams: two hundred and thirty proposals were received in response to the RFP, from which twenty-three partners were selected in just fifty-nine days (from issuance of RFP to selection). Second, it was used to select an industrial partner to team with us on a spacecraft development effort of over twenty million dollars. We received eight proposals, and selected a partner in thirty-three days,

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