

**Selection Statement
for the
Ares I Upper Stage Production
Request for Proposal
(Solicitation Number NNM07181505R)**

On August 27, 2007, along with other senior officials of the National Aeronautics and Space Administration (NASA), I met with the source evaluation board (SEB) appointed to evaluate proposals in connection with the Ares I Upper Stage Production Request for Proposal (RFP) (Solicitation Number NNM07181505R). The presentation charts represent the final source evaluation report and are herein incorporated by reference.

I. Background

The upper stage element is an integral part of the Ares I crew launch vehicle and provides the second stage of flight. The successful offeror will be responsible for supporting the NASA design team (NDT) during the design and production of upper stage test articles and operational elements. Specifically, the proposed contract is organized into five contract line item numbers (CLINs). The CLINs are summarized below.

CLIN 1 relates to the design, development, test, and evaluation (DDT&E) support for the NDT, which includes providing (1) producibility engineering (i.e., the infusion of manufacturing/logistics/supportability expertise into the design process in order to reduce overall life cycle cost and maximize operability) and (2) developmental hardware and test articles.

CLIN 2 relates to indefinite-delivery, indefinite-quantity (IDIQ) task orders during the DDT&E phase to support the NDT as specifically described in the statement of work (SOW).

CLIN 3 relates to the manufacture and assembly of six operational upper stage elements.

CLIN 4 relates to IDIQ task orders during the production of operational upper stage elements as specifically described in the SOW.

CLIN 5 relates to options to order/purchase up to four additional operational upper stage elements per year for delivery during years 2014, 2015, and 2016 (for a total of 12 additional upper stage elements).

The proposed contract will extend through December 31, 2016, and will be performed under a cost-plus-award-fee (CPAF) contract. Performance of CLINs 1 and 2 will be evaluated under NASA FAR Supplement (NFS) 1852.216-76, Award Fee for Service Contracts (Jun 2000) and performance of CLINs 3, 4, and 5 will be evaluated under NFS 1852.216-77, Award Fee for End Item Contracts (Jun 2000).

The RFP for the Ares I Upper Stage Production was released on February 23, 2007. Amendment no. 1 was posted on March 20, 2007, to provide numerous revisions and replacement pages to the RFP and a comprehensive list of questions and answers; amendment no. 2 was posted on April 4, 2007, to change the composition of the SEB voting members; and amendment no. 3 was provided to all offerors on June 29, 2007, to provide numerous revisions, clause updates, and replacement pages.

The procurement was conducted as a full and open competition in accordance with FAR Part 15, Contracting by Negotiation. The RFP divided the proposals into five volumes with separate due dates. Volume II, related to past performance, was due on March 16, 2007. Volume I, related to mission suitability, and Volume V, related to various plans (e.g., small business subcontracting plan, safety and health plan, etc.), were due on April 2, 2007. Volume III, related to cost, and Volume IV, related to the model contract, were due on April 13, 2007. Proposals were received from the following companies:

ATK Launch Systems Inc.
P.O. Box 707
Brigham City, UT 84302-0707

The Boeing Company
499 Boeing Blvd.
P.O. Box 240002
Huntsville, AL 35824-6402

The proposals were supplemented with one-hour, oral presentations by each of the two offerors for the purpose of acquainting the Government evaluators with the offerors' overall proposal structure and approach. Both ATK Launch Systems Inc. (ATK) and The Boeing Company (Boeing) presented on June 7, 2007.

The proposals were evaluated in accordance with the procedures prescribed by FAR Part 15 and NASA FAR Supplement (NFS) Part 1815 with an objective of achieving the best value. The RFP delineated three primary evaluation factors – mission suitability, past performance, and cost – as being essentially equal in importance and stated that the evaluation factors other than cost, when combined, are significantly more important than cost.

Under the mission suitability factor, the proposals were evaluated to ensure the offeror (1) thoroughly understood the requirements of the SOW, (2) has the capability to successfully manufacture and deliver upper stage elements, and (3) can achieve operational cost effectiveness and mission success. Each proposal received a mission suitability score based on the following subfactors and associated numerical weights.

Management Approach subfactor	475 points
Technical Approach subfactor	425 points
Small Business and Small Disadvantaged	100 points
<u>Business Utilization subfactor</u>	
Total	1000 points

In addition, the RFP allowed the mission suitability score to be reduced in accordance with the results of the cost realism analysis under the cost factor.

Since past performance can be a significant indicator of performance under the proposed contract, the past performance of each offeror (including past performance of team members and major subcontractors) was evaluated. The evaluation assessed corporate past performance on other programs comparable to the proposed upper stage effort and was based on information provided by the offerors, past performance questionnaires, and other information available to the SEB. In accordance with the RFP, adjective ratings (i.e., "excellent," "very good," "good," "fair," "poor," and "neutral") were utilized to assess past performance.

Under the cost factor, the offeror's understanding of the requirements of the solicitation was assessed. A cost realism analysis was performed on each proposal to determine whether, over the life of the contract, the proposed cost elements (1) were realistic for the work to be performed, (2) reflected a clear understanding of the requirements, and (3) were consistent with the unique methods of performance and materials as described in each proposal. For CLINs 1 and 3, the cost realism analysis was used to calculate a most probable cost and determine a level of confidence (i.e., "high," "medium," and "low") in the most probable cost. For CLINs 2 and 4, the cost realism analysis produced a level of confidence related to whether the IDIQ work could be performed at or within the proposed labor/fee rates. For CLIN 5, the cost realism analysis produced a level of confidence related to whether the optional upper stage elements can be delivered within the proposed not-to-exceed (NTE) price. Finally, in accordance with the RFP, the mission suitability scores were adjusted as a result of significant differences between the proposed cost and the most probable cost related to each proposal.

To assist with the evaluation of the initial proposals, the SEB conducted written and oral clarification sessions with each offeror. Written clarification questions were provided to each offeror on May 25, 2007, the offerors provided written answers on June 4, 2007, and face-to-face, oral clarification sessions were held with each offeror on June 7, 2007.

II. Evaluation of Initial Proposals

Both proposals were determined to be acceptable and were evaluated in accordance with FAR Part 15 and NASA FAR Supplement (NFS) Part 1815 as well as the RFP. The results of the initial evaluation were presented to me, the source selection authority (SSA), on June 25, 2007, and are summarized below.

ATK Launch Systems Inc.

Under the mission suitability factor, ATK's mission suitability score included a 50-point deduction as a result of the cost realism analysis and, consequently, ATK received an adjectival rating of "good." ATK received six significant strengths, 38 strengths, 28 weaknesses, and seven significant weaknesses across the three subfactors.

Under the management approach subfactor, ATK received an adjectival rating of "good." ATK received two significant strengths, 16 strengths, 11 weaknesses, and three significant weaknesses.

Under the technical approach subfactor, ATK received an adjectival rating of "good." ATK received four significant strengths, 16 strengths, 16 weaknesses, and four significant weaknesses.

Under the small business and small disadvantaged business utilization subfactor, ATK received an adjectival rating of "good." ATK received zero significant strengths, 6 strengths, a weakness, and zero significant weaknesses.

Under the cost factor, significant adjustments in the proposed cost resulted from inadequate staffing, material, and tooling. As indicated above, these cost adjustments resulted in a 50-point deduction in ATK's mission suitability score. The most probable cost for CLINs 1 and 3 received a "high" level of confidence from the SEB. For CLINs 2 and 4, the proposed IDIQ labor/fee rates received a "high" level of confidence from the SEB. For CLIN 5, the proposed NTE price for the optional upper stage elements received a "low" level of confidence from the SEB.

Under the past performance factor, ATK received an overall adjectival rating of "excellent." ATK received five significant strengths, six strengths, two weaknesses, and zero significant weaknesses.

The Boeing Company

Under the mission suitability factor, Boeing's mission suitability score included a 200-point deduction as a result of the cost realism analysis and, consequently, Boeing received an adjectival rating of "fair." Boeing received a total of seven significant strengths, 52 strengths, 39 weaknesses, and five significant weaknesses across the three subfactors.

Under the management approach subfactor, Boeing received an adjectival rating of "very good." Boeing received four significant strengths, 20 strengths, ten weaknesses, and two significant weaknesses.

Under the technical approach subfactor, Boeing received an adjectival rating of "good." Boeing received two significant strengths, 27 strengths, 29 weaknesses, and three significant weaknesses.

Under the small business and small disadvantaged business utilization subfactor, Boeing received an adjectival rating of “excellent.” Boeing received a significant strength, five strengths, zero weaknesses, and zero significant weaknesses.

Under the past performance factor, Boeing received an overall adjectival rating of “excellent.” Boeing received three significant strengths, ten strengths, three weaknesses, and zero significant weaknesses.

Under the cost factor, significant adjustments in the proposed cost resulted from inadequate staffing, material, and tooling. As indicated above, these cost adjustments resulted in a 200-point deduction in Boeing’s mission suitability score. The most probable cost for CLINs 1 and 3 received a “medium” level of confidence from the SEB. For CLINs 2 and 4, the proposed IDIQ labor/fee rates received a “low” level of confidence from the SEB. For CLIN 5, the proposed NTE price for the optional upper stage elements received a “low” level of confidence from the SEB.

Based on these findings from the SEB, I determined that award on initial proposals was not appropriate, and I established a competitive range of the most highly rated proposals. The offerors determined to be within the competitive range included both the proposal from The Boeing Company and the proposal from ATK Launch Systems Inc. Consequently, I authorized the SEB to proceed with discussions leading to the submission of final proposal revisions (FPRs).

III. Discussions and Evaluation of Final Proposal Revisions

Both offerors were informed of their inclusion in the competitive range via letters dated June 29, 2007. Discussions were held with both offerors on alternating days between July 23 and July 28, 2007, and concluded on August 3, 2007, in an effort to eliminate all of the weaknesses in the respective proposals. FPRs were received on August 13, 2007. The results of the final evaluation were presented to me on August 27, 2007, and are summarized below.

ATK Launch Systems Inc.

Under the mission suitability factor, all of the weaknesses were adequately addressed in the FPR. Thus, ATK received a final adjectival rating of “excellent.” ATK received seven significant strengths (which included an upgraded strength) and 37 strengths.

Under the management approach subfactor, ATK received a final adjectival rating of “excellent.” ATK received two significant strengths and 16 strengths under this subfactor.

Under the technical approach subfactor, ATK received a final adjectival rating of “excellent.” ATK received four significant strengths and 16 strengths under this subfactor.

Under the small business and small disadvantaged business utilization subfactor, ATK received a final adjectival rating of “very good.” ATK received a significant strength (which was an upgraded strength) and 5 strengths.

Under the past performance factor, the findings remained the same and ATK’s adjectival rating of “excellent” did not change as a result of the FPR.

Under the cost factor, no cost adjustments were needed as a result of the cost realism analysis. The proposed cost for CLINs 1 and 3 received a “high” level of confidence from the SEB. For CLINs 2 and 4, the proposed IDIQ labor/fee rates received a “high” level of confidence from the SEB. For CLIN 5, the proposed NTE price for the optional upper stage elements received a “high” level of confidence from the SEB.

The Boeing Company

Under the mission suitability factor, most of the weaknesses were adequately addressed in the FPR. Thus, Boeing received a final adjectival rating of “very good.” Boeing received eight significant strengths (which included an upgraded strength), 52 strengths (which included a new strength), three weaknesses (all of which were upgraded significant weaknesses), and zero significant weaknesses.

Under the management approach subfactor, Boeing received a final adjectival rating of “very good.” Boeing received five significant strengths (which included an upgraded strength), 19 strengths, and two weaknesses (both of which resulted from upgraded significant weaknesses).

Under the technical approach subfactor, Boeing received a final adjectival rating of “very good.” Boeing received two significant strengths, 28 strengths (which included a new strength), and a weakness (which resulted from an upgraded significant weakness).

Under the small business and small disadvantaged business utilization subfactor, Boeing’s adjectival rating of “excellent” did not change as a result of the FPR. Boeing received a significant strength and five strengths.

Under the past performance factor, the findings remained the same and Boeing’s adjectival rating of “excellent” did not change as a result of the FPR.

Under the cost factor, cost adjustments were needed as a result of the cost realism analysis. The most probable cost for CLINs 1 and 3 received a “medium” level of confidence from the SEB. For CLINs 2 and 4, the proposed IDIQ labor/fee rates received a “high” level of confidence from the SEB. For CLIN 5, the proposed NTE

price for the optional upper stage elements received a "low" level of confidence from the SEB.

IV. Decision

Following the presentation by the SEB, I held an executive session with my senior NASA advisers to discuss the evaluation results. I polled each of those present and asked for their comments, objections, or concerns with the material presented. Following this discussion, I provided my reactions to the evaluation results and offered the following rationale supporting my selection.

Both offerors were capable of meeting the technical requirements of the Ares I Upper Stage Production contract and presented proposals of comparable technical merit as evidenced by the final mission suitability results. Similarly, the past performance evaluation revealed that both offerors possessed equivalent performance history as both offerors were assigned an adjectival rating of "excellent." Accordingly, past performance offered no meaningful basis upon which to distinguish the two proposals. However, the cost evaluation revealed some very clear distinctions between the two proposals. In this area, Boeing held the greatest advantage because both the proposed cost and the most probable cost were significantly lower than ATK's proposed cost (which did not receive any most probable cost adjustments).

With respect to the technical evaluation, I noted that ATK was assigned a final adjectival rating of "excellent." By contrast, Boeing was assigned a final adjectival rating of "very good." I did not view the difference in the technical content as being sufficient to justify the significantly higher cost associated with the ATK proposal. Notwithstanding these ratings, the Boeing proposal presented several noteworthy strengths. First, Boeing proposed a flat supplier chain which minimizes management tiers, simplifies communication, reduces cost, and avoids schedule delays, especially for design changes associated with NASA-designed flight hardware. Second, Boeing proposed a key person for program manager with outstanding references/credentials related to the management of projects that manufacture large, complex space flight hardware. Third, Boeing demonstrated a mature understanding of the requirements and proposed to infuse lean processes and tools from its commercial product line (i.e., the Boeing 737 airplane and the Delta expendable launch vehicle) into the critical design period in order to optimize producibility of the NASA upper stage design, lower unit costs, and improve schedule feasibility. In my view, these strengths represent meaningful advantages to the Government from both a cost and technical perspective.

With respect to the cost factor, although no probable cost adjustments were made to ATK's proposed cost, the significant difference between Boeing's most probable cost for CLINs 1 and 3 and ATK's proposed cost for CLINs 1 and 3 can be attributed to several factors. First, as indicated, Boeing's management approach created significant cost savings in overhead and general and administrative (G&A) costs. Second, Boeing's approach to material handling created substantial cost savings. Finally, Boeing proposed

an engineering staffing mix that was very well suited for the proposed production and support of the NASA-designed upper stage. ATK, on the other hand, proposed an engineering staffing mix that was very well suited for a contractor-designed upper stage. In this case, since NASA is ultimately responsible for the design, Boeing's approach will be more cost effective and indicates a clear understanding of the work required by the SOW.

I also noted that Boeing did not adequately include the complete cost of tooling at the Michoud Assembly Facility (MAF) to support production. Consequently, Boeing's most probable cost included an upward adjustment for tooling. Boeing did acknowledge that the tooling would be required from a technical standpoint and even provided the cost of such tooling apart from its proposed cost. However, according to Boeing's interpretation, the RFP allowed offerors to exclude certain tooling costs from the proposed cost. The weight of this finding is lessened in my view by the fact that this issue is essentially an accounting question from the Government's perspective. In other words, the tooling cost will be borne by the Government either as an addition to the Ares I Upper Stage Production contract or as a direct purchase by the Government for use by Boeing (i.e., government furnished equipment (GFE)).

As a final point under the cost factor, I noted that Boeing's approach to cost is not without added risk. As noted above, the SEB expressed a "medium" level of confidence (compared to a "high" level of confidence for ATK) in the most probable cost for CLINs 1 and 3. Furthermore, the SEB expressed a "low" level of confidence (compared to a "high" level of confidence for ATK) in the proposed NTE prices for CLIN 5. However, this additional level of risk is acceptable in light of the overall cost savings associated with the Boeing proposal.

In light of the fact that mission suitability, cost, and past performance are of equal importance, I have determined that cost is a significant discriminator between the two offerors and that Boeing will provide a significant cost advantage to the Government. In addition, Boeing's proposed technical approach demonstrates a clear understanding of the work to be performed under the contract. Consequently, I select The Boeing Company for award of Ares I Upper Stage Production contract at the George C. Marshall Space Flight Center.



Douglas R. Cooke
Source Selection Authority



Date