

## SELECTION STATEMENT

### AEROSPACE RESEARCH & TECHNOLOGY (ART) CONTRACT

On May 28, 1996, I, along with certain Langley Research Center officials who have responsibilities related to this procurement, met with the Source Evaluation Board (SEB) appointed to evaluate proposals to provide research support services for the Research and Technology Group (RTG). The Board's presentation consisted of the procurement history, the evaluation procedures, and the evaluation findings of the SEB.

## PROCUREMENT DESCRIPTION

The ART Contract will provide research services to all seven divisions in the Research and Technology Group at Langley Research Center. The technical disciplines include aeronautics and aerothermodynamics research, including gas dynamics research, aerodynamics research and technology development, and fluid mechanics and acoustics research; structures and materials research and technology development; and flight systems research, including flight dynamics, guidance and control research and technology development, and information and electromagnetic systems research and technology development. This support is currently being provided by Lockheed Engineering and Sciences Co. and by several small R & D firms under several on-site and near-site contracts.

A cost plus award fee, completion contract has been determined to be the most appropriate type for this procurement. Specific work requirements will be defined in performance-based task orders to be issued by the Contracting Officer, with the contractor performing and being evaluated against specific performance standards/metrics. Some of these task orders may be classified (up to Top Secret). The contract will have a 12-month initial period of performance followed by two 12-month options periods and a final 15-month option period, for a total potential period of performance of 51 months

The ART Contract will decrease in value by approximately 20% each fiscal year, and will go to zero by the end of Fiscal Year 2000. Since the Research and Technology Group plans to bring all of the functions covered by the ART Contract "in-house" by the end of FY 2000, no follow-on contract is planned.

## SOURCES

The ART Request for Proposal (RFP) was released on January 26, 1996, to 120 firms. The RFP was also available on-line on the NASA Langley Procurement Home Page. Twelve firms attended the preproposal conference held at Langley Research Center on February 13, 1996. Proposals were submitted on March 12, 1996, by the following two firms:

- Lockheed Martin Engineering and Sciences Company
- Aerotherm Corporation

## EVALUATION PROCEDURE

Prior to the issuance of the RFP, I appointed a Source Evaluation Board (SEB) to conduct an evaluation of proposals received in response to the RFP. The SEB developed a detailed Evaluation Plan, including a numerical and adjectival scoring system for the Mission Suitability Subfactors. In addition, the Plan stated that the SEB would evaluate but not score Cost and Relevant Experience and Past Performance. The RFP set forth the following three evaluation factors:

- Mission Suitability
- Cost
- Relevant Experience and Past Performance

The Mission Suitability Subfactors and the weights assigned are as follows:

<u>Subfactors</u>	<u>Weights</u>
1. <u>Understanding the Requirements and Approach:</u>	50%
2. <u>Total Compensation Plan</u>	10%
3. <u>Management Approach:</u>	40%
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	100%
4. <u>Cost Realism</u>	-10%

While the numerical weights assigned to the above subfactors were indicative of the relative importance of those evaluation areas, they were to be used only as a guide in making my selection decision. The RFP stated that in the overall selection of a contractor for contract award, Mission Suitability, Cost, and Relevant Experience and Past Performance would be of essentially equal importance.

The evaluation was performed entirely by the SEB without the use of standing committees. Technical Consultants were appointed to review Representative Task Order responses. Since real task requirements were used in the RFP, the originator of each task was selected as a consultant. These consultants provided written evaluations of the proposals in accordance with the evaluation plan and, in some cases, met with the SEB to elaborate on their evaluations. Business Consultants were similarly used in the areas of Total Compensation Plan (Mission Suitability Subfactor 2) and Cost (Factor 2).

Upon receipt of proposals the SEB reviewed both offers to determine if either was patently unacceptable. Both were found to be acceptable by the SEB. Each voting member then independently evaluated the Technical Proposals in alphabetical order, noting strong and weak points and assigning adjective ratings to each Mission Suitability Subfactor except Subfactor 4, Cost Realism. Subfactor 4 could not be evaluated until the preliminary probable cost assessment was completed since the formula for making Cost Realism adjustments is a function of that assessment. After each voting member had individually assessed the strengths and weaknesses of Subfactors 1 through 3, the SEB developed consensus strong and weak points and consensus adjective ratings for these Subfactors. The SEB then scored each Technical Proposal in accordance with the Evaluation Plan.

Thereafter, the SEB assessed the Business Proposals to evaluate the proposed costs and relevant experience and past performance, and to make cost realism adjustments. This completed the initial evaluation of the SEB.

The initial evaluation findings were then summarized into a report to the Contracting Officer (CO) and presented to her at the competitive range meeting on April 19, 1996. The CO, in conjunction with the SEB, determined that both firms had a reasonable chance of being selected for contract award. In accordance with the evaluation plan, both were included in the competitive range. The CO and the SEB also jointly assessed the potential for improving the competitive positions of the offerors by written or oral discussions. It was concluded that the potential for such improvement did exist and that written discussions would be the most appropriate and expeditious manner in which to conduct formal discussions. Questions for each offeror were developed with the purpose of pointing out any weaknesses in the proposals while making certain not to conduct technical leveling. Questions were also asked when necessary to resolve ambiguities in a proposal.

When the answers to all questions were received from the contractors, the SEB met to consider their impact on the initial evaluation scores. First strong and weak points were adjusted to reflect the revised proposals, then the adjective ratings and numerical scores for Factor 1 were revisited. Under Factor 2, probable cost computations were prepared for both offerors based on their revised Business Proposals. Additional REPP information was also considered, and the adjective ratings for Factor 3 were revisited. The SEB then prepared a written report that detailed their findings and gave an oral presentation to me summarizing the findings as well.

I have carefully reviewed the facts presented in the report and discussed with the SEB the technical merits and comparative strengths and weaknesses of each proposal. Set forth in order of ranking (high to low) is a summary of Mission Suitability findings for the two offerors.

## MISSION SUITABILITY

### Lockheed Martin Engineering and Sciences Company

Lockheed Martin received an overall Mission Suitability rating of Excellent. There were no major weakness in the Mission Suitability factor. Under Subfactor 1, the proposal contained eleven major strengths. The Lockheed Martin proposal displayed extensive demonstrated technical expertise and clear understanding under the representative tasks, as well as significant capabilities and experience across the spectrum of statement of work (SOW) technical areas. In addition, the proposed Contract Manager has directly applicable experience, including downsizing experience, strong management skills, and a good educational background. Under Total Compensation Plan (Subfactor 2), a major strength was noted in that Lockheed Martin and its subcontractors proposed to offer the same pay for similar work and to recognize site seniority for all benefits. The following two major strengths were recognized under Lockheed Martin's Management Approach (Subfactor 3): placement opportunities for Lockheed Martin and subcontractor employees with other Lockheed Martin divisions, and proposed small disadvantaged business participation which substantially exceeded the RFP goal of 8 percent.

### Aerotherm Corporation

Aerotherm Corporation received an overall Mission Suitability rating of Very Good. Under Subfactor 1, there were six major strengths and three major weaknesses. Major strengths included a very good understanding of project purpose and of basic requirements for CFD code validation for complex aircraft; clear understanding of simulation needs for spacecraft, the multi-body nature of spacecraft dynamics, and modeling tools; strong demonstrated expertise and experience in facilities operations and systems evaluations in gas dynamics; comprehensive experience and expertise in flight dynamics and guidance and control research and technology; comprehensive demonstrated expertise in information and electromagnetic technology; and a Deputy Contract Manager with outstanding applicable experience in multiple statement of work technical areas and a strong educational background. The major weaknesses noted under Subfactor 1 were a lack of in-depth knowledge of STAGS or FRANC3D codes; marginal understanding of high performance polymers; and a lack of understanding of the strengths of and needs for robust control techniques (i.e., synthesis and LMI techniques). Under Total Compensation Plan (Subfactor 2), a major strength was noted in that full vesting is provided for the employees of Aerotherm and one of its subcontractors in their respective

retirement programs, and that all Aerotherm team members will recognize LaRC site service for vacation and sick leave accrual. No major weaknesses were found under Subfactor 2.

The following three major strengths were recognized under Aerotherm's Management Approach (Subfactor 3): employee retention incentives for task completion that is paid for out of the contractor's earned award fee; complete authority of the Contract Manager to make decisions on contract performance; and proposed small disadvantaged business participation that substantially exceeded the RFP goal of 8 percent. However, a major weakness was noted under Subfactor 3 related to Aerotherm's overestimation of nonessential staff, which suggests an inadequate understanding of the nature of the work.

### COST

The Board's cost evaluations were based on the costs and award fee proposed by each offeror for the basic contract period and the three priced option periods. A detailed probable cost assessment was performed on each offer following receipt of best and final offers. Only minor adjustments were made for each offeror, which included the correction of inaccurate subcontractor costs and the adjustment of indirect rates in accordance with audit recommendations. Aerotherm's final probable cost, including award fee, was approximately 6.9 percent lower than that of Lockheed Martin.

### RELEVANT EXPERIENCE AND PAST PERFORMANCE (REPP)

The SEB assigned an adjective rating of Excellent to Lockheed Martin for REPP. The Lockheed Martin team demonstrated a strong overall level of performance and outstanding relevant experience. Lockheed Martin has exhibited excellent performance under the contract for Technical Support Services for Aerospace Research and Technology, which is one of the predecessor contracts to the ART Contract, and is three times the size of the ART Contract. Sources rated Lockheed Martin's performance on average to be very good to excellent. Lockheed Martin's primary subcontractors, AS&M and Vigyan, Inc., have numerous highly relevant contracts, most of which are at Langley Research Center. They have performed work in aerothermodynamics, including computational fluid dynamics, structures, materials, and other areas under the ART SOW. Sources rated the performance of both AS&M and Vigyan on average to be very good to excellent.

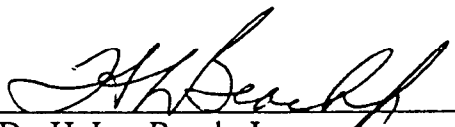
Aerotherm received a rating of Good for REPP. Aerotherm has exhibited very good to excellent performance under a number of engineering and technical operations contracts, mostly for the Department of Defense, which are relevant to some areas of the ART SOW. However, Aerotherm lacked the breadth and depth of experience needed to cover the full spectrum of the ART SOW, which was particularly problematic in that Aerotherm would be performing the vast majority of the direct technical labor effort, as well as controlling the overall contract effort as the prime contractor.

SELECTION DECISION

After the SEB's presentation, I reviewed and assessed the evaluation findings. I noted that the Lockheed proposal received a rating of "Excellent" for Mission Suitability, while the Aerotherm proposal received a rating of "Very Good". In particular, I noted that Lockheed Martin had an excellent plan for dealing with the downsizing activity that will take place over the life of this contract, bringing it down to zero by the end of Fiscal Year 2000. I further noted that, in the area of Relevant Experience and Past Performance, Lockheed Martin was rated "Excellent" and was two adjective ratings higher than Aerotherm, who received a "Good". In particular, I focused on the fact that Aerotherm, who would be performing the vast majority of the direct technical labor under this contract, had relevant experience in only some areas of the statement of work. I then reviewed the comparative position of the proposals from the standpoint of cost based on the Board's assessment. I noted that Aerotherm had a lower proposed and probable cost than Lockheed Martin, with the difference between probable cost estimates being approximately 6.9 percent.

In making my decision, I considered all three factors equally. I concluded that Lockheed Martin's superior Mission Suitability score, combined with its superior Relevant Experience and Past Performance rating and reasonable costs, resulted in the Lockheed Martin proposal being the most advantageous proposal to the Government, all factors considered. Therefore, Lockheed Martin Engineering and Sciences Company is selected for the purpose of contract award.

I am convinced that the Source Evaluation Board conducted a thorough, fair, and objective evaluation of all proposals in accordance with the established evaluation plan.

  
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Dr. H. Lee Beach, Jr.  
Deputy Director, NASA Langley Research Center  
Source Selection Official

JUN 3 1996  
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Date