

Source Selection Statement
For
Systems Analysis and Mission Support (SAMS)
1-132-RB.1002

On October 3,2000, I met with the Source Evaluation Board (SEB) appointed to evaluate proposals to provide the Center with Systems Analysis and Mission Support (**SAMS**). The **SEB's** presentation included the procurement background information, the evaluation procedures, and the results of its evaluation of the proposals received.

I. Acquisition

SAMS is a follow-on procurement that consolidates the requirements currently performed under two separate contracts at LaRC: NAS 1-96013 for Systems Analysis and Engineering Research Support (SAERS) and NAS 1-96014 for Aerospace Research and Technology Services (ARTS).

SAMS will provide research and development and engineering support services to NASA Langley Research Center. Specific work areas include: full-spectrum aerodynamics, gas dynamics, fluid dynamics, aero-thermodynamics, acoustics and aeroacoustics, metallic and non-metallic structures and materials, and space and airborne systems.

A cost-plus-award-fee, performance-based 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 with the contractor performing and being evaluated against specific performance standards. Some of these task orders may be classified (up to Top Secret). The procurement is a 100% Small Business set-aside.

II. Sources

The Draft Request for Proposal (RFP) was released on March 24,2000 for industry comments. Following release of the Draft RFP, the SEB held a pre-solicitation conference at the Center on April 25,2000. Forty two (42) firms attended the conference. The final RFP was released on May 25,2000. Proposals were received on June 26,2000, from the following six companies:

Dynacs, Inc.
Indyne, Inc.
QSS Group, Inc.
Sparta
Science and Technology Corporation (STC)
Swales and Associates, Inc.

III. Evaluation Procedures

Prior to the issuance of the RFP, I appointed the SEB to conduct an evaluation of proposals received in response to the RFP. The SEB was directed by me to conduct the evaluation in accordance NASA FAR Supplement 1815.3 using the evaluation criteria defined in the RFP.

The SEB used the numerical and adjectival scoring system defined in the NASA FAR Supplement for the Mission Suitability Subfactors and rated but did not score Cost and Past Performance. The RFP set forth the following three evaluation factors:

Mission Suitability
cost
Past Performance

The Mission Suitability Subfactors and the weights assigned were:

Subfactor 1	Understanding the Requirements	500
Subfactor 2	Management and Staffing	500
		1,000
Subfactor 3	Cost Realism	-200

While the numerical weights were indicative of the relative importance of the above Subfactors as stated in the RFP, I used them only as a guide. The RFP stated that in the overall selection, Mission Suitability, Cost, and Past Performance would be of essentially equal importance.

The evaluation was performed by the SEB without the use of committees or subcommittees. Consultants were used to assist the SEB in performing the evaluation of: 1) the responses to the representative task orders, 2) the proposed total compensation plans, and 3) the information provided on ISO 9001. The evaluation began with each member individually reviewing the Past Performance Proposals, Volume 111, and the Past Performance Forms submitted by the offerors' customers two weeks prior to the final proposal due date in order to streamline the procurement process. After the proposal receipt date, each member individually reviewed the Technical Proposals, Volume I, and the Contract Specialist reviewed the Business Proposals, Volume II, to determine if any should be rejected as patently unacceptable. All six proposals were found to merit in-depth evaluation.

Each voting member then independently evaluated the Technical Proposals, noting strong and weak points and assigning adjective ratings to each Mission Suitability Subfactor excluding Subfactor 3, Cost Realism. **This** Subfactor could not be evaluated until the probable cost assessment was completed since the formula for making cost realism adjustments is a function of that assessment. After each voting member and the consultants (when applicable) had individually assessed the strengths and weaknesses of Subfactors 1 and 2, the SEB developed consensus strong and weak points for these

Subfactors. After a complete set of strong and weak points were developed, the SEB arrived at consensus adjective ratings for these Subfactors and then scored each Technical Proposal.

Thereafter, the SEB assessed the Business Proposals to evaluate the proposed costs and to make adjustments to arrive at a probable cost to the Government for each offeror. Upon finalizing the probable cost assessments, the SEB revisited Subfactor 3, Cost Realism, and made one adjustment to an offeror's Mission Suitability numerical score in accordance with the formula provided in the RFP. Because no offeror was privy to all of the incumbent rates, no Subfactor 3, Cost Realism adjustments were made for probable cost increases/decreases resulting from the application of incumbent rates.

The results of the initial evaluation were presented to the Contracting Officer (CO) and Procurement Officer on September 7, 2000. The comments and questions of the CO and Procurement Officer were resolved and reflected in the Initial Evaluation Report dated September 14, 2000. The RFP stated the Government's intent to award a contract without discussions. In the CO's judgement, the findings supported award without discussions. The SEB therefore proceeded directly with a formal presentation to me on October 3, 2000.

IV. Evaluation Results

I have carefully reviewed the SEB's findings and discussed with the SEB the technical merits and comparative strengths and weaknesses of each proposal. The SEB proposed rankings for the six offerors in each of the three evaluation factors and after evaluating the SEB findings I concurred with the rankings below.

MISSION SUITABILITY

Set forth in order of ranking (high to low) is a summary of the Mission Suitability findings for the six offerors.

Swales and Associates, Inc. (Swales)

Swales received six significant strengths, no significant weaknesses, no deficiencies and an overall adjective rating of "Very Good" under the Mission Suitability Factor. Under Subfactor 1, there were several significant strengths identified. Under the Computation Fluid Dynamics (CFD) Task (G1), Swales provided an excellent overall approach to the data validation. Under the Wind Tunnel Turbine Simulator/Data Acquisition System **Task** (R1), Swales provided an excellent discussion on the software development process. Under the Aircraft and Spacecraft Structures **Task** (S6), Swales presented a clear understanding of the analysis options and many of the issues for characterizing sandwich structures under flight and landing loads. Under the Future Space Mission Task (W1), Swales presented a comprehensive approach, methods, and details for developing a systems analysis for a future space mission. Under Subfactor 2, Management and Staffing, Swales proposed an excellent ISO 9001 third-party registered system and an

integrated and detailed no-cost phase-in plan. There were no adjustments made for Cost Realism under Subfactor 3.

Sparta

Sparta received fourteen significant strengths, four significant weaknesses, no deficiencies and an overall adjective rating of ‘Very Good’ under the Mission Suitability Factor. Under Subfactor 1, both significant strengths and significant weaknesses were identified. Under the Aircraft Instrument Task (C1), Sparta proposed an excellent overall approach to meeting the requirements of the task. Sparta demonstrated a solid understanding of aircraft work and provided an excellent approach for vibration isolation. Under the CFD Task (G1), Sparta underestimated the complexity of the task and the level of expertise required to execute it. Under the Wind Tunnel Turbine Simulator/Data Acquisition System Task (R1), Sparta’s software plan displayed a thorough approach. Also under this task, Sparta proposed excellent pre-test planning and an excellent detailed test plan. Under the Aircraft and Spacecraft Structures Task (S6), Sparta presented a sound approach to completing the task with sufficient detail and identification of the necessary analysis tools and analytical methods. Furthermore, Sparta correctly identified the potential failure modes for sandwich structures. Under the Future Space Mission Task (W1), Sparta presented a detailed approach to the Europa mission and a thorough approach for the development of a general computer tool. On the other hand, their response to this task had significant flaws in the areas of risk identification and mitigation. Under Subfactor 2, Management and Staffing, Sparta recognized the year end phase-in problems with a plan to ease incumbent uncertainties. Sparta proposed a comprehensive phase-in plan. Sparta did an excellent job of addressing the ADP issue and presented an excellent plan for task order and contract level management. Finally, Sparta proposed a proven, no-cost electronic task order system. Significant weaknesses were also identified for Subfactor 2. There were two significant weaknesses relating to Sparta’s total compensation plan which raised serious concerns related to employee morale and retention of the incumbent staff at Langley. Sparta’s Mission Suitability score was reduced under Subfactor 3, Cost Realism, as a result of significant adjustments made to develop the Government’s probable cost. The reduction in Sparta’s Mission Suitability score for Cost Realism did not result in a change in Sparta’s adjective rating for Mission Suitability.

Indyne, Inc.

Indyne received six significant strengths, six significant weaknesses, no deficiencies and an overall adjective rating of “Good” under the Mission Suitability Factor. Under Subfactor 1, both significant strengths and significant weaknesses were identified. Under the CFD Task (G1), Indyne’s proposal for CFD tool development included a comprehensive risk assessment. Also on this task, Indyne proposed a comprehensive validation process. Under the Wind Tunnel Turbine Simulator/Data Acquisition System **Task** (R1), Indyne’s plan for software development was poor. Furthermore, Indyne provided a poor test plan that did not adequately address several critical aspects of the test. Finally, Indyne failed to address the primary technical **risks** associated with the task.

Under the Aircraft and Spacecraft Structures Task (S6), Indyne displayed an excellent understanding of spacecraft analysis. Indyne also demonstrated an excellent understanding of the complexities involved in testing spacecraft structures. On the other hand, Indyne's depiction of a ribbed aircraft structure rather than the honeycomb/foam core structure described in the RFP was a basic oversight. Under the Future Space Mission Task (W1), Indyne's in-depth technical discussion revealed a comprehensive knowledge of space systems, but their discussion on task planning (project management) was mostly general without a sufficient level of detail. Under Subfactor 2, Management and Staffing, Indyne offered a fully operational and proven electronic task order system, at no cost to the Government. On the other hand, Indyne's phase-in plan had several weaknesses. There were no adjustments made for Cost Realism under Subfactor 3.

Dynacs, Inc.

Dynacs' received five significant strengths, nine significant weaknesses, no deficiencies and an overall adjective rating of "Good" under the Mission Suitability Factor. Under Subfactor 1, Dynacs' overall approach to all of the representative task orders lacked detail. Under the Aircraft Instrument Task (C1), Dynacs' proposed cost estimate was too high and failed to include a fabrication estimate or subcontracting information. Under the CFD Task (G1), Dynacs demonstrated a detailed appreciation for the overall task complexity. Dynacs substantially addressed the requirement for defining validation data sets and identifying additional tests required for Aero- and Aeroheating. Under the Wind Tunnel Turbine Simulator/Data Acquisition System Task (R1), Dynacs' proposal failed to recognize the availability of Commercial Off-the-shelf (COTS) Software. This approach will require an excessive number of hours to complete the task. Under the Aircraft and Spacecraft Structures Task (S6), Dynacs failed to address significant risks in their risk identification and mitigation techniques coverage; failed to adequately address the fundamental analysis aspects of the test; inadequately addressed the testing aspects of the task; failed to address a significant portion of the modeling-related technical requirements; and grossly underestimated the resources required to address this task order. Under the Future Space Mission Task (W1), Dynacs failed to display a working knowledge of tools/methods currently used in this type of activity. Under Subfactor 2, Management and Staffing, Dynacs proposed an excellent ISO 9001 third-party registered system, which implies a mature, operational quality system. Dynacs proposed organization provides the flexibility to quickly realign internal resources to meet urgent **needs**. Dynacs' proposed an excellent total compensation plan. There were no adjustments made for Cost Realism under Subfactor 3.

OSS Group, Inc. (QSS)

QSS received four significant strengths, seven significant weaknesses, no deficiencies and an overall adjective rating of "Good" under the Mission Suitability Factor. Under Subfactor 1, both significant strengths and significant weaknesses were identified. Under the Aircraft Instrument Task (C1), QSS made no provisions to verify the integrity of the drawing packages for the CAN and OV-10A aircraft. Also on this task, QSS failed to address intermediate tests, subcomponent tests, or environmental tests. Under the Wind

Tunnel Turbine Simulator/Data Acquisition System Task (R1), QSS provided an excellent approach for testing, including several suggestions for improving the success of the test. Under the Aircraft and Spacecraft Structures Task (S6), QSS demonstrated a lack of understanding of the analysis required. In addition, the proposed hours to complete the task were extremely excessive. Also, QSS inadequately addressed and demonstrated a lack of understanding of the failure mechanisms and prediction methods for aircraft and spacecraft structures. Finally, QSS failed to recognize the extent of the risks to the success of the task order. Under the Future Space Mission Task (W1), QSS presented a complete and detailed description of the procedures and analytical capabilities necessary to create a space mission analysis. Under Subfactor 2, Management and Staffing, QSS' total contract and task order management plan thoroughly addressed the requirements. QSS also proposed an excellent total compensation plan. On the negative side, QSS failed to present detailed plans for acquiring the necessary ADP equipment. There were no adjustments made for Cost Realism under Subfactor 3.

Science and Technology Corporation (STC)

STC received one significant strength, nine significant weaknesses, no deficiencies and an overall adjective rating of "Fair" under the Mission Suitability Factor. Under the Aircraft Instrument Task (C1), STC failed to address the performance of vibration analysis of the CAN instrument. Under the Wind Tunnel Turbine Simulator/Data Acquisition System Task (R1), STC's data acquisition plan lacked detail and contained significant flaws. Also, STC's proposed skill mix distribution was inappropriate and the total hours were excessive leading to a high cost to complete the task. Under the Aircraft and Spacecraft Structures Task (S6), STC presented a sound approach with sufficient detail and identification of the necessary analysis tools and analytical methods. However, STC did not adequately address the testing aspect of the task order. In addition, STC failed to adequately address the risk associated with testing and analysis. Under the Future Space Mission Task (W1), STC's approach lacked substantial detail. Also, STC proposed a poor risk and risk mitigation plan. Under Subfactor 2, Management and Staffing, STC's ADP acquisition plan lacked sufficient detail and entailed considerable risk. Also, STC's proposed recruiting process was generic and inadequate. There were no adjustments made for Cost Realism under Subfactor 3.

COST

I carefully analyzed the cost evaluations, and closely questioned the SEB on the process used to determine probable cost for the six offerors.

The cost evaluation was based upon each offeror's proposed cost and fee to perform the required effort. There was an approximate 37% difference between the highest and lowest total proposed cost for the six offerors. The ranking (low to high) for proposed costs, including fee, was as follows:

Sparta
Indyne, Inc.
Swales and Associates, Inc.

QSS Group, Inc.
Science and Technology Corporation (STC)
Dynacs, Inc.

The SEB evaluated the validity of the proposed costs in terms of the offeror's understanding of the requirement and for cost realism. A probable cost adjustment was made for all offerors to reflect projected incumbent retention at the incumbent direct labor rates. The other major adjustments made to individual offerors dealt with escalation, DCAA recommended rates, software and hardware costs, management costs, a productive man-year change, and adjustments to the material and travel base. After adjustments, the difference between the highest and lowest offeror's cost was less than 9%. The probable cost adjustments resulted in a change in the ranking (low to **high**) as follows:

Indyne, Inc.
Sparta
Dynacs, Inc.
QSS Group, Inc.
Swales and Associates, Inc.
Science and Technology Corporation (STC)

PAST PERFORMANCE

Set forth in order of adjective ratings (high to low) is a summary of the Past Performance analysis for the six offerors.

Dynacs

Dynacs received an "Excellent" rating for past performance. Dynacs has directly applicable experience with contracts of similar size and complexity. One such contract has received two back-to-back 100% award fee scores. Dynac's customers provided very positive ratings citing Dynacs for such accomplishments as timely and successful transitions, innovation, and creativity.

Swales and Associates, Inc.

Swales received an "Excellent" rating for Past Performance. The Swales team demonstrated exceptional coverage of all the areas of the Statement of Work (SOW). **This** team has excellent research and development experience in several key areas of the SOW such as structures and materials, space access, aerodynamics, space science, airborne systems, and systems engineering. In addition to this directly relevant experience, customers indicated high satisfaction with their performance. For instance, Swales's references gave **high** marks for staff retention.

QSS Group, Inc.

QSS received a “Very Good” rating for Past Performance. QSS has directly related experience in managing several contracts that are similar in both technical nature and magnitude to SAMS. The QSS team has demonstrated exceptional coverage of all the areas of the SAMS SOW. This team has excellent research and development experience for several areas of the SOW such as aeronautics, space science, and space access. However, problems were identified by some customers in several management areas for their major subcontractor.

Indyne, Inc.

Indyne received a “Good” rating for Past Performance. While the Indyne team has relevant experience in the SAMS SOW areas, Indyne has only limited experience as a prime contractor in managing a highly technical support service contract similar to SAMS, and has limited experience in performing the majority of the SOW areas.

Sparta

Sparta received a “Good” rating for Past Performance. The Sparta team demonstrated high quality research and development experience in several key areas of the SAMS SOW such as structures and materials, space science, airborne systems, and project planning. However, some phase-in, transition, and management problems were identified by some customers for the Sparta team.

Science and Technology Corporation (STC)

STC received a “Fair” rating for Past Performance. Past Performance data revealed a lack of experience in the areas of space access, aero-acoustics, and structures and materials and little research and development experience relative to the SAMS work. STC has only limited experience as a prime contractor in managing a highly technical support service contract similar to the nature and magnitude of SAMS.

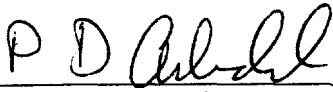
V. Basis for Selection

In making my decision, I considered all three Factors equally. I am convinced that the SEB conducted a thorough, fair, and objective evaluation of all proposals.

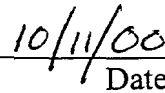
I have reviewed and analyzed the SEB’s evaluation findings. There is a significant range of ratings among the offerors’ proposals in Factor 1 (Mission Suitability) and Factor 3 (Past Performance). Swales and Sparta, respectively, have the highest ranking proposals in Factor 1. Dynacs and Swales have the highest adjective rating possible for Factor 3. Sparta received the third highest adjective rating possible for Factor 3, while Dynacs was fourth in the rankings for Factor 1. When considering Factors 1 and 3 equally, Swales emerges as the clear choice, since they were ranked a solid first in Factor 1 and received the highest possible rating in Factor 3.

In considering Factor 2, there is less than 9% variation in the probable costs among the offerors' proposals. This, in my judgement, is relatively small. Swales probable cost is about 7% higher than Sparta and about 4% higher than Dynacs. In the cases of both Dynacs and Sparta, lower ratings/scores in one of the other Factors gave me concern about mission and/or schedule risk that, in my judgement, outweighed the potential cost savings identified in comparing the probable costs. Though Indyne has the lowest probable cost, in my view they did not perform well enough in the other Factors (third in Factor 1 and the third highest adjective rating possible for Factor 3) to warrant selection over other offerors.

Therefore, Swales is selected for contract award, since in my judgement this offeror's proposal represents the best value to the Government.



P. Douglas Arbuckle
Source Selection Authority



Date