

# Source Selection Statement

for the

Research Operations, Maintenance &

Engineering (ROME) Contract

Source Selection Information (until contract award)

See FAR 3.104

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**Source Selection Statement  
for the  
Research Operations, Maintenance & Engineering Contract  
(NASA Solicitation Number 1-123-RBJ.1437)**

**I. Identification of the Acquisition**

The Research Operations, Maintenance & Engineering (ROME) contract will provide operations, maintenance and engineering services in support of research and institutional facilities at the NASA Langley Research Center (LaRC). Specific functions to be performed include: Research facility electrical, mechanical, structural, process and automation systems engineering, design and development; architectural-engineering designs, analyses, drawings, specifications and cost estimates for institutional facilities; general drafting; engineering library support; configuration management and maintenance of engineering drawing files; central utilities systems operations, maintenance and engineering; maintenance, repair and alterations of research and institutional facilities; work control, energy management and duty officer activities; test engineering and operations support for research facilities, including turnkey operations responsibility for five of Langley's largest wind tunnels; research instrumentation systems development and support; calibration, maintenance and repair of instrumentation, including LaRC's metrology program; research facility data acquisition systems development and support; high pressure systems recertification; systems development and administration for facilities-related management information systems.

The resulting award will be a hybrid contract, which will include cost plus incentive fee, cost plus fixed fee and firm-fixed price work. ROME will also be an award term contract, which allows the contractor to earn additional contract term for excellent performance (up to a potential total term of 10 years) and to lose term for poor performance. This procurement was conducted as a full and open competition.

**II. Background**

The ROME contract consolidates the services provided under eight current support service contracts plus small portions of three other current contracts. The incumbent contractors (and contract numbers) for the eight contracts that will be consolidated in their entirety are as follows:

Aero Systems Engineering Inc. (NAS1-98090): Systems Engineering for Research Facility Integrated Systems (SERFIS) Contract  
Diversified Technology and Services of Virginia (NAS1-99140): Research Equipment Operations Support (REOS) Contract  
DynCorp Systems and Solutions (NAS1-98091): Systems Engineering for Research Facility Integrated Systems (SERFIS) Contract  
Hernandez Engineering Inc. (NAS1-99151): Recertification and Configuration Management Contract

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Johnson Controls World Services Inc. (NAS1-99000): Facilities and Equipment Support Services (FESS) Contract

Sverdrup Technology Inc. (NAS1-98128 & NAS1-98092): Multi-Discipline Architect-Engineering Services (MAES) Contract and Systems Engineering for Research Facility Integrated Systems (SERFIS) Contract

Wyle Laboratories (NAS1-98100): Research Instrumentation and Measurement Support (RIMS) Contract

The three contracts that will have small portions consolidated into ROME are as follows:

Raytheon Technical Services Company (L-70750D): Consolidated Information Technology Services (ConITS) Contract

Swales Aerospace (NAS1-00135): Systems Analysis and Mission Support (SAMS) Contract

Tessada & Associates Inc. (NAS1-02081): Consolidated Logistics, Administrative & Scientific Information Contract (CLASIC)

All required approvals for this consolidation, which meets the definition of “contract bundling” in the Federal Acquisition Regulation (FAR), were obtained prior to the issuance of the RFP and are included in the contract file.

### **III. Evaluation Factors, Subfactors and Elements**

The RFP set forth the following three evaluation factors:

Factor 1 – Mission Suitability

Factor 2 – Cost/Price

Factor 3 – Past Performance

The RFP stated that in the overall selection, Mission Suitability, Cost, and Past Performance would be of essentially equal importance; and that Mission Suitability and Past Performance, when combined, would be significantly more important than Cost.

#### **A. Factor 1 – Mission Suitability**

The following Mission Suitability Subfactors were established, with weights assigned as indicated, using a 1,000-point scale:

Subfactor 1	Understanding the Requirements and Approach	400
Subfactor 2	Management	400
Subfactor 3	Safety	100
Subfactor 4	Small Disadvantaged Business (SDB) Participation	100

The Source Evaluation Board (SEB) used the following numerical and adjectival scoring system for the Mission Suitability factor as required by the NASA FAR Supplement to

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assign adjective ratings and scores for each Subfactor within Mission Suitability and for the overall Mission Suitability factor:

<b><u>ADJ. RATING</u></b>	<b><u>% RANGE</u></b>	<b><u>DEFINITIONS</u></b>
Excellent	91-100	A comprehensive and thorough proposal of exceptional merit with one or more significant strengths. No deficiency or significant weakness exists.
Very Good	71-90	A proposal having no deficiency and which demonstrates overall competence. One or more significant strengths have been found, and strengths outbalance any weaknesses that exist.
Good	51-70	A proposal having no deficiency and which shows a reasonably sound response. There may be strengths or weaknesses, or both. As a whole, weaknesses not offset by strengths do not significantly detract from the offeror's response.
Fair	31-50	A proposal having no deficiency and which has one or more weaknesses. Weaknesses outbalance any strengths.
Poor	0-30	A proposal that has one or more deficiencies or significant weaknesses that demonstrate a lack of overall competence or would require a major proposal revision to correct.

**B. Factor 2 – Cost/Price**

The RFP does not provide for adjectival ratings or numerical scores under the Cost/Price factor. Offerors were required to propose fee at various “set fee” levels specified by the Government in the RFP. These set fee amounts are included in the probable cost for each offeror. The Cost/Price evaluation language from Section M of the RFP follows:

An analysis of the proposed price will be conducted to determine its reasonableness. In addition, a cost realism analysis will be performed to assess the realism of the proposed costs for the work to be performed; reflection of a clear understanding of the requirements; and consistency with the unique methods of performance and materials described in the offeror’s technical proposal. A probable cost will be developed for purposes of determining best value. Once the probable cost excluding fee (PCEF), has been determined, the probable fixed and incentive fees will be determined. The fixed fee rate will be applied to the applicable portion of the PCEF to calculate the fixed fee dollars. The incentive fee structure will be applied to the variance between the target (proposed) costs and the

PCEF to calculate the incentive fee dollars. The resulting fee dollars will be combined with the PCEF to establish the Government's probable cost. Fee shall be proposed at the levels set forth in this RFP. The basis for price comparison between offerors for selection under this factor will be each offeror's probable cost as defined above plus any adjustments that may be required under FAR 52.219-4, Notice of Price Evaluation Preference for HUB Zone Small Business Concerns (JAN 1999) and FAR 52.219-23, Notice of Price Evaluation Adjustment for Small Disadvantaged Business Concerns (May 2001). The cost/price proposal will also be used as an aid to determine the offeror's understanding of Mission Suitability Requirements. For evaluation purposes, the Government will establish a probable cost for the IDIQ portion of the contract based on the information provided in RFP Section L.16(f)6 (m)(5). Specifically, the Government will determine the IDIQ probable cost by using the data provided in Cost Form VIII and applying each offeror's probable indirect cost rates and 7 percent fee/profit.

### **C. Factor 3 – Past Performance**

The SEB rated the Past Performance factor in accordance with the adjectival rating scale shown below, which is set forth in the RFP. Each of the Past Performance adjective ratings has a "performance" component and a "relevance" component. The offeror must meet the requirements of both components to achieve a particular rating.

Excellent - Of exceptional merit; exemplary performance in a timely, efficient, and economical manner; very minor (if any) deficiencies with no adverse effect on overall performance; and experience that is highly relevant to this procurement.

Very Good - Very effective performance; fully responsive to contract requirements; contract requirements accomplished in a timely, efficient, and economical manner for the most part, only minor deficiencies with minimal effect on overall performance; and experience is very relevant to this procurement.

Good - Effective performance; fully responsive to contract requirements; reportable deficiencies, but with little identifiable effect on overall performance; and experience is relevant to this procurement.

Satisfactory - Meets or slightly exceeds minimum acceptable standards; adequate results; reportable deficiencies with identifiable, but not substantial, effects on overall performance; and experience is at least somewhat relevant to this procurement.

Poor/Unsatisfactory - Does not meet minimum acceptable standards in one or more areas; remedial action required in one or more areas; deficiencies in one or more areas which adversely affect overall performance.

Neutral - No record of relevant past performance or past performance information is not available.

#### **IV. Sources**

The Draft Request for Proposal (RFP) was released on April 25, 2003 for industry comments. Following the release of the Draft RFP, the SEB conducted a Presolicitation Conference at Langley Research Center on May 15 - 16, 2003. 157 individuals representing 84 different firms attended one or both days of the conference. The final RFP was released on June 5, 2003. Written Past Performance information (Volume III) was received on June 26, 2003 for early evaluation, and Volumes I and II (Mission Suitability and Cost/Price) were submitted on August 8, 2003. Past Performance oral presentation charts (also Volume III) were submitted on August 5, 2003 and the actual presentations were made by the offerors during the week of August 11 – 15, 2003. Proposals were received from the following eight companies:

- AECOM
- Computer Sciences Corporation (CSC)
- The Cube Corporation (Cube)
- Jacobs Sverdrup (JS)
- Kellogg Brown and Root (KBR)
- Raytheon Technical Services Company (Raytheon)
- Virginia Aerospace Services (VAS)
- Wyle Laboratories (Wyle)

#### **V. Evaluation Procedures**

Prior to issuance of the RFP, the SEB was appointed to develop the RFP and to conduct the evaluation of proposals received in response to the RFP. As required in paragraph (a) of RFP provision M.1, METHOD OF EVALUATION, the SEB conducted its evaluation in accordance with subpart 1815.3 of the NASA FAR Supplement, using the evaluation criteria defined in the RFP and described above. These procedures and criteria were followed throughout the evaluation process.

The evaluation was performed by the SEB using the evaluation criteria set forth in Section M of the RFP, the evaluation numerical and adjectival rating and scoring system in the NASA FAR Supplement for Mission Suitability and Past Performance, and the Mission Suitability Cost Realism Adjustment Table from the RFP. The SEB members and all consultants are NASA Langley civil service employees. The evaluation was performed by the SEB without the use of formal committees or subcommittees; however, a Past Performance Team was assembled to conduct a thorough review of the 150+ past performance forms received from customers of the offerors and their subcontractors, and to follow up on any negative past performance issues identified by customers. In many instances, the review of a past performance form was followed up with a telephone call to a customer point of contact to clarify information already provided. The Past Performance Team prepared clarification questions for each offeror in every instance

where negative past performance was reported. The Past Performance team reported its findings to the SEB on October 28, 2003. Other consultants were used to assist the SEB in performing the evaluation of specific technical aspects of the proposals, and the Professional Compensation, SDB, Small Business, ISO/Quality Plans, and Safety and Health Plans included with each offeror.

The evaluation began with each voting member of the SEB reviewing the past performance proposal volumes and the customer past performance forms. Individual findings were identified at this time. When the Past Performance oral presentation charts were received, the SEB members reviewed the charts prior to the actual presentations. All seven of the SEB voting members, two consultants, at least one attorney from the LaRC Office of Chief Counsel, and the Contracting Officer (C.O.) attended all eight of the oral past performance presentations. Following the oral past performance presentations, the individual voting members identified additional Past Performance findings. After completion of individual Past Performance evaluations, the SEB met as a group and developed consensus findings for each individual offeror. Because adverse past performance issues had not yet been addressed at this point, the SEB began work on the Mission Suitability factor while the Past Performance Team (discussed above) was being assembled.

When the Mission Suitability evaluation began, each voting member first independently reviewed the Technical/Management Proposal (Volume I) for each offeror, and the Contract Specialist and NASA Price Analysts also reviewed the Business Proposal (Volume II), to determine whether any proposals should be rejected as unacceptable. None of the eight proposals were found to be unacceptable.

Each voting member then independently reviewed each Technical/Management Proposal (in alphabetical order), and documented strengths and weaknesses under the various Mission Suitability Subfactors. Several consultants also independently reviewed specific areas of the Technical/Management Proposal for which they possessed technical expertise. After completion of each individual evaluation, the SEB met as a group, discussed all of the individual findings of the voting members and consultants, and developed consensus strengths and weaknesses for each individual offeror. Once this phase of the evaluation was concluded, the SEB returned to its evaluation of the Past Performance factor, including evaluation of the Past Performance Team's report.

After the Past Performance Team reported its findings to the SEB, the SEB revisited its consensus past performance findings and made revisions as deemed necessary by a consensus of the SEB voting members. The SEB also developed consensus findings on the relevance of each offeror's experience. When this was complete, the SEB then developed a consensus rating for each offeror under Factor 3 – Past Performance, using the adjectival rating scale set forth in the RFP. Offerors (including subcontractors) without a record of relevant past performance were rated neither favorably nor unfavorably under Factor 3.



Next, the SEB reviewed the Business Proposals to provide technical input to support the determination of cost realism and price reasonableness. The SEB evaluated specific elements of the business proposal and addressed any inconsistencies between the business and technical proposals. The SEB provided the results of its review to the NASA Price Analysts who incorporated it, along with information from Defense Contract Audit Agency (DCAA) offices, into the detailed analysis of the individual cost proposals. The Pricing Report shows the determination of price reasonableness and a summary of the cost realism analysis, and relies upon the individual proposals, the analysis of these proposals, and the SEB and DCAA input. Pursuant to NASA FAR Supplement 1815.305(a)(1)(B)(c), as part of performing the cost realism analyses, a level of confidence was determined for the probable cost assessment for each proposal. Probable cost confidence is the degree to which the probable costs can be relied upon to ascertain the likely cost of performance for each firm. Upon finalizing the probable cost assessment, the SEB determined whether cost realism adjustments were necessary in accordance with the terms of the RFP. No Mission Suitability point deductions for any of the offerors resulted from the Cost Realism evaluation.

Following the SEB's review of the Business Proposals, the SEB met with the C.O. to review the SEB's Mission Suitability consensus findings. Some revisions were made by the SEB to clarify the linkage of strengths and weaknesses to the RFP Mission Suitability evaluation language, and to ensure consistent application of the evaluation criteria. The SEB then developed its consensus adjective ratings and point scores for each Mission Suitability Subfactor, and for the Mission Suitability Factor as a whole. The C.O. and the SEB then conducted a similar review for the Past Performance and Cost/Price factors, and the SEB developed its consensus adjective ratings for the Past Performance Factor to conclude the proposal evaluation process.

## **VI. Summary of Findings**

The results of the initial evaluations were reviewed by the C.O. and were discussed between the C.O. and the SEB from November 17 - 26, 2003. All the comments and questions of the C.O. were resolved. The RFP stated the Government's intent to award a contract without discussions. In the C.O.'s judgment, discussions were not deemed necessary, and the SEB concurred with the C.O. The SEB, therefore, proceeded directly with a formal presentation of its findings to me. The SEB's presentation included procurement background information, evaluation procedures, and the results of the proposal evaluation.

I have carefully reviewed the SEB's findings and have discussed those findings with the SEB members. I also concur with the C.O.'s determination that discussions are not necessary. For each of the eight offerors, the SEB assigned an adjective rating and score for Factor 1, a probable cost, a confidence level for probable cost, and an evaluated price for Factor 2, and an adjective rating for Factor 3. I concur with the SEB findings below:

## **A. FACTOR 1: MISSION SUITABILITY**

Set forth in order of ranking (from high to low) is a summary of the Mission Suitability findings for the eight offerors. All significant strengths listed below are considered to be of substantial value to the Government, and all significant weaknesses listed below are considered to appreciably increase the risk of unsuccessful contract performance. Additional detail on significant strengths and significant weaknesses that most significantly affected my decision can be found in the comparative analyses between the successful offeror's proposal and the other seven offerors' proposals in the "Basis for Selection" section of this Source Selection Statement.

### **1. Jacobs Sverdrup (JS)**

JS received an "Excellent" rating at the Mission Suitability factor level for a comprehensive and thorough proposal of exceptional merit with numerous significant strengths and no deficiencies or significant weaknesses. The findings for JS are summarized below by Mission Suitability Subfactor.

Subfactor 1, Understanding the Requirements and Approach - JS received an "Excellent" rating for a comprehensive and thorough proposal of exceptional merit with numerous significant strengths and no deficiencies or significant weaknesses. **The Significant Strengths for JS under Subfactor 1 are as follows:**

- A highly innovative and effective approach to establishing and maintaining effective communication between Operations, Maintenance, Engineering and Information Technology (OME & IT) work units and between the ROME contractor and LaRC clients;
- 26 innovations, technologies, and process improvements to implement within the first three years of the contract (and continuing many throughout the contract period);
- A comprehensive list of risk elements, a risk probability and impact rating, and a detailed risk mitigation strategy;
- Several approaches for maximizing the availability and productivity of research facilities;
- A comprehensive summary and demonstrated an exceptional understanding of typical problems associated with Research Facility Operations;
- A highly effective approach to assure research test data quality;
- Several maintenance innovations for facility repair cost avoidance;
- Effective innovations utilizing existing asset management systems to achieve accuracy and quality of facility maintenance data, which will facilitate informed maintenance decisions by analysis of the maintenance data;
- An effective and innovative use of technology through the use of a collaborative communication system that enables the sharing of drawings and other project data between offices, allowing geographically remote operations to function as a single "virtual office"; and

- An effective strategy for IT Consolidation/Enterprise Architecture Implementation, which will increase the availability and quality of information provided to the Government.

Subfactor 2, Management - JS received an “Excellent” rating for a comprehensive and thorough proposal of exceptional merit with several significant strengths and no deficiencies or significant weaknesses. **The Significant Strengths for JS under Subfactor 2 are as follows:**

- A comprehensive management approach supported by an organizational structure established and aligned on the basis of 15 well-defined core processes with assigned JS owners;
- A Management Team that has highly relevant experience managing a large number of people in a wind tunnel testing environment on contracts similar in size, content, and complexity to ROME;
- An aggressive, credible and detailed approach to cost reductions through labor efficiencies that includes new technologies, innovations, and process improvements, with most gains to be realized in the first half of the contract period;
- Invest a significant amount of its own money in several initiatives related to process improvements, human capital development and marketing of LaRC research facilities; and
- A comprehensive table of transition-related risks and mitigation approaches which will significantly minimize changeover difficulties and maximize continuity of services.

Subfactor 3, Safety - JS received a “Very Good” rating for a proposal which demonstrates overall competence with one significant strength and no deficiencies or significant weaknesses. **The Significant Strength for JS under Subfactor 3 is as follows:**

- A thorough Safety and Health Plan that incorporates all elements of the OSHA VPP program and includes a structured plan and a corporate commitment to meet the requirements for VPP Star designation.

Subfactor 4, SDB Participation - JS received a “Good” rating for a proposal which shows a reasonably sound response and has no significant strength, deficiency or significant weakness, and contains one strength and no weaknesses.

## **2. Raytheon**

Raytheon received a “Very Good” rating at the Mission Suitability factor level for a proposal which demonstrates overall competence with numerous significant strengths, no deficiencies and several significant weaknesses. The findings for Raytheon are summarized below by Mission Suitability Subfactor.

Subfactor 1, Understanding the Requirements and Approach - Raytheon received a “Very Good” rating for a proposal which demonstrates overall competence with several significant strengths, no deficiencies and two significant weaknesses. The significant strengths and significant weaknesses for Raytheon under Subfactor 1 are as follows:

### **Significant Strengths**

- An approach to risk management that is comprehensive and addresses programmatic risks and mitigation for each Subfactor
- Several technology innovations that effectively utilize existing asset management systems to improve facility reliability and condition, and facilitate Government acceptance of new technologies through the demonstration of quick benefits resulting in improved data quality and information availability; An Enterprise Information Portal (EIP) prototype which is comprehensive and consolidated into a "single point of access for ROME work activities". Additionally, Raytheon proposed the delivery of a "[working prototype] during the first week of phase-in for customer review" and to expedite the development and delivery of the EIP to exceed the Government's EIP delivery schedule by approximately 6 months;
- A comprehensive and effective IT Security approach; and an excellent Enterprise Architecture (EA) development methodology and a comprehensive and effective strategy for addressing the Government's EA goals and objectives as stated in Section 5.2 of the Statement of Work (SOW).

### **Significant Weaknesses**

- An approach for managing the metrology program that is vague and does not adequately address how SOW requirements for compliance with ISO 17025 (SOW 3.2.1) will be met during the period prior to the certification of its metrology subcontractor or how it will perform Data Acquisition Systems/Facility Automation Systems (DAS/FAS) instrumentation metrology; and
- An approach for the design, development, implementation, and lifecycle support of FAS and DAS that does not adequately address DAS/FAS software maintenance nor does it adequately address configuration management of DAS/FAS hardware and software.

Subfactor 2, Management - Raytheon received a “Very Good” rating for a proposal which demonstrates overall competence with several significant strengths, no deficiencies and two significant weaknesses. The significant strengths and significant weaknesses for Raytheon under Subfactor 2 are as follows:

### **Significant Strengths**

- Demonstrates understanding and approach to manage the ROME contract that is based upon proposed process improvements and includes its Integrated Product Development System (IPDS) and Raytheon Six Sigma (RSix Sigma); Raytheon

demonstrated integration of its IPDS and R6 Sigma through the use of case studies relevant to ROME;

- Proposes to invest a significant amount of its own money over the first three years of the contract in the following categories: OSHA Voluntary Protection Program (VPP) Star Certification, development of an ISO 9001 quality management system, DAS/FAS upgrades, Raytheon 6-Sigma experts, and development of the EIP, which will contribute to good stewardship of LaRC facilities, facility systems, and OME & IT business systems;
- An approach to develop and implement a process to capture and document the critical knowledge residing with the existing research facility operations workforce that is comprehensive and well conceived; and
- A phase-in plan that represents an excellent approach to minimizing changeover difficulties.

### **Significant Weaknesses**

- Due to the proposed location of the metrology facility, its ability to meet the on-site service and emergency repair timeliness requirement (ref. SOW Sections 3.2.2 and 3.1.6.2.1) for the instrumentation calibration and repair functions has not been adequately demonstrated. In addition, it is not clear if the facility proposed for use will be totally dedicated to the ROME contract due to the calibration services currently provided by the proposed subcontractor to non-ROME customers, leaving the Government unable to discern whether the facility is adequately sized for the ROME effort; and
- The Management Team does not have adequate experience managing projects of the size, content, and complexity of ROME, and has limited operational experience in wind tunnels and research facilities. In addition, the proposed Management Team does not have adequate wind tunnel or research facility engineering management experience.

Subfactor 3, Safety - Raytheon received an “Excellent” rating for a comprehensive and thorough proposal of exceptional merit with one significant strength and no deficiencies or significant weaknesses. **The Significant Strength for Raytheon under Subfactor 3 is as follows:**

- A comprehensive Safety and Health (S&H) Plan that includes a draft of its VPP Star Application and an investment of a significant amount of Raytheon’s money, thus showing further commitment to becoming VPP Star certified.

Subfactor 4, SDB Participation - Raytheon received a “Very Good” rating for a proposal which demonstrates overall competence with one significant strength and no deficiencies or significant weaknesses. **The Significant Strength for Raytheon under Subfactor 4 is as follows:**

- An SDB goal that significantly exceeds the RFP SDB Subfactor goal of 10%, and proposed formal enforceable commitments with SDBs. Raytheon has exceeded its corporate-wide SDB goals for the last 7 years.

### **3. Computer Sciences Corporation (CSC)**

CSC received a “Very Good” rating at the Mission Suitability factor level for a proposal which demonstrates overall competence with numerous significant strengths, no deficiencies and two significant weaknesses. The findings for CSC are summarized below by Mission Suitability Subfactor.

Subfactor 1, Understanding the Requirements and Approach – CSC received a “Very Good” rating for a proposal which demonstrates overall competence with several significant strengths, no deficiencies and two significant weaknesses. The significant strengths and significant weaknesses for CSC under Subfactor 1 are as follows:

#### **Significant Strengths**

- An approach to develop and implement its ROME Integrated Business Systems (RIBS) by utilizing its proven Management Information and Control System (MICS) as the single business management system and primary customer interface to an underlying OME Enterprise Architecture is exceptional;
- A significant number of maintenance innovations for the existing asset management systems; and
- An Enterprise Architecture (EA) approach (e.g. developing an EA Communications Plan, providing a cost-benefit analysis, deriving and documenting an IT governance strategy, and following the guidelines set forth in the "Practical Guide to Enterprise Architecture") that will result in significant IT cost savings for the Government, eliminate functional and data redundancy, and improve information accuracy and quality.

#### **Significant Weaknesses**

- An acceptable level of understanding or technical approach for Data Acquisition Systems (DAS) work in the operations area is not demonstrated; and
- An adequate level of detail or an acceptable level of understanding for DAS and FAS hardware and software maintenance and configuration control is not demonstrated.

Subfactor 2, Management - CSC received an “Excellent” rating for a comprehensive and thorough proposal of exceptional merit with several significant strengths and no deficiencies or significant weaknesses. **The Significant Strengths for CSC under Subfactor 2 are as follows:**

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- An innovative and cost effective approach to cooperate with the Government to capture and document the critical knowledge residing with the existing research facility operations workforce;
- A Management Team that has extensive experience in engineering and management. CSC's proposed Management Team also has excellent qualifications and extensive experience in phase-in of previous contracts of similar size, content, and complexity. In addition, the Management Team has Central Utilities Operations experience that is highly relevant to the ROME effort;
- A plan for cost control and cost savings initiatives that will be enhanced by Contractor investments of a significant amount of its own money in the following areas: no cost phase-in, deployment of the IT Solutions Development Lab, calibration lab move and upgrade, accelerated Enterprise Architecture implementation, wind tunnel marketing plan, and the Technology Partnership Council; and
- Subcontracting goals for overall small businesses (SB), veteran-owned small businesses (VOSB), service-disabled veteran-owned small businesses (SDVOSB), and historically black colleges and universities (HBCU) that significantly exceed the RFP goals for those four categories.

Subfactor 3, Safety - CSC received a “Very Good” rating for a proposal which demonstrates overall competence with one significant strength and no deficiencies or significant weaknesses. **The Significant Strength for CSC under Subfactor 3 is as follows:**

- A comprehensive Safety and Health Plan for complying with applicable NASA policies and procedures that includes a commitment to achieve VPP star status within one year.

Subfactor 4, SDB Participation - CSC received an “Excellent” rating for a comprehensive and thorough proposal of exceptional merit with one significant strength and no deficiencies or significant weaknesses. **The Significant Strength for CSC under Subfactor 4 is as follows:**

- An SDB Plan that subcontracts a portion of the ROME contract to small disadvantaged businesses that very significantly exceeds the RFP target of 10% for this Subfactor. CSC also proposed formal teaming arrangements with its SDB subcontractors and has consistently exceeded SDB goals on prior contracts.

#### **4. Virginia Aerospace Services (VAS)**

VAS received a “Very Good” rating at the Mission Suitability factor level for a proposal which demonstrates overall competence with numerous significant strengths, no deficiencies and several significant weaknesses. The findings for VAS are summarized below by Mission Suitability Subfactor.

Subfactor 1, Understanding the Requirements and Approach – VAS received a “Very Good” rating for a proposal which demonstrates overall competence with several significant strengths, no deficiencies and several significant weaknesses. The significant strengths and significant weaknesses for VAS under Subfactor 1 are as follows:

### **Significant Strengths**

- Several significant innovations and process improvements in the areas of facilities marketing, knowledge capture, staffing, performance improvement, and management of human capital to be implemented during the first three years of the contract;
- A number of innovations for research test data quality assurance that demonstrate an exceptional understanding of the ROME requirements in this area;
- A comprehensive RCM strategy that will significantly improve the maintenance program by reducing the impact of maintenance on facility operations; and
- Several excellent maintenance innovations that will result in repair cost avoidance and overall improvements in facility condition, reliability, and availability.

### **Significant Weaknesses**

- Did not address configuration management for FAS and DAS, nor did it address DAS and FAS software maintenance (for example, VAS did not address the implementation of software project management principles or an approach to maintenance and repair of DAS and FAS software and hardware, nor did it address how it will manage the releases of DAS and FAS software or maintain source code control);
- Did not adequately discuss how the metrology program will be implemented; how DAS or FAS equipment will be calibrated both in the lab and in the research facilities; how various categories of instruments will be scheduled, calibrated, or repaired; how IAGP and GFE will be assessed and managed, or how VAS’s procedures will interface with current Langley Management System (LMS) processes; and
- An approach to deliver "within the first 18 months ...an Enterprise Information Portal" that does not meet the overall 12-month delivery requirement for the EIP contained in the SOW (ref. section 5.1.3).

Subfactor 2, Management – VAS received an “Excellent” rating for a comprehensive and thorough proposal of exceptional merit with several significant strengths and no deficiencies or significant weaknesses. **The Significant Strengths for VAS under Subfactor 2 are as follows:**

- Creation of a Joint Venture (JV) exclusively for the ROME contract will:
  - a) "[Eliminate the] requirement for application of Corporate General and Administrative (G&A) expenses, which will result in a reduction of [a significant amount] in contract costs" and
  - b) will impose “no cost load on subcontracts due to no application of G&A or fee by [the Offeror]”;



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- A Management Team that has NASA-related technical and business experience and experience managing contracts similar in size and complexity to ROME. In addition, the proposed Management Team has extensive management qualifications and maintenance experience, including RCM and Condition Assessment Programs and successful performance of facility operations and maintenance at Marshall Space Flight Center (MSFC). The proposed Management Team also has extensive management and business system technology experience and is, therefore, highly qualified to manage the Information Technology requirements. The proposed Management Team has significant phase-in experience on contracts similar in size and complexity to ROME;
- Very effective approaches for capturing and documenting the critical knowledge residing with the existing research facility operations workforce; and
- A very detailed, comprehensive and effective approach to minimize changeover difficulties and maximize continuity of services during phase-in.

Subfactor 3, Safety – VAS received a “Good” rating for a proposal which shows a reasonably sound response and has no significant strength, deficiency or significant weakness, and contains one strength and one weakness.

Subfactor 4, SDB Participation - VAS received a “Very Good” rating for a proposal which demonstrates overall competence with one significant strength and no deficiencies or significant weaknesses. **The Significant Strength for VAS under Subfactor 4 is as follows:**

- An SDB plan which includes identified SOW areas, SDB outreach and source identification. In addition, VAS proposes an SDB goal that exceeds the RFP goal of 10%, and its SDB past performance indicates strong corporate commitment to achieve subcontracting goals.

## 5. AECOM

AECOM received a “Very Good” rating at the Mission Suitability factor level for a proposal which demonstrates overall competence with several significant strengths, no deficiencies and several significant weaknesses. The findings for AECOM are summarized below by Mission Suitability Subfactor.

Subfactor 1, Understanding the Requirements and Approach – AECOM received a “Good” rating for a proposal which shows a reasonably sound response and contains two significant strengths, no deficiencies and several significant weaknesses. The significant strengths and significant weaknesses for AECOM under Subfactor 1 are as follows:

### **Significant Strengths**

- An excellent approach to improving the quality of engineering designs; and
- An innovative systems engineering approach for tactical engineering, configuration management, and pressure system recertification.

### **Significant Weaknesses**

- The graphical representation of its ROME Enterprise IT architecture requires the movement of multiple application protocols through the LaRC firewall (T2 to T3), creating a significant IT Security risk for the Center. In addition, the Offeror's narrative does not agree with its graphical representation, making the Offeror's IT architecture approach vague (i.e., the EIP is stated to be in Tier 1, but depicted in Tier 2 of the figure in its proposal). Also, the Offeror's approach to include IT-CMS, OME-VL, and the EIP within MAXIMO did not demonstrate how MAXIMO could satisfy the ROME document and configuration management requirements;
- Their approach to maximizing IT Security addresses security at only the user access level, and AECOM's strategy to maintain "IT backup servers in an off-site facility" will create an IT Security risk due to transmission of proprietary data and documents in the clear over public lines; and
- AECOM's proposed facility maintenance staffing (SOW 3.1) is significantly lower (by 27 Full-Time Equivalents (FTE)) than the Government estimate, and this discrepancy is not supported by the Offeror's technical proposal (i.e., operational efficiencies that would generate such labor savings were not proposed), indicating a significant lack of understanding of the requirements (the Government estimate was developed using historical data, which was provided to the offerors in the RFP);

Subfactor 2, Management – AECOM received a “Very Good” rating for a proposal which demonstrates overall competence with two significant strengths, no deficiencies and one significant weakness. The significant strengths and significant weakness for AECOM under Subfactor 2 are as follows:

### **Significant Strengths**

- Proposed partnership with RFMO to invest, at the Program Manager's discretion, a highly substantial amount of its own money in human capital development, new equipment, technology insertion, and marketing of LaRC Research facilities will contribute to good stewardship of LaRC facilities, facility systems, and OME & IT business systems; and
- A signed three-party agreement with the unions representing ROME craftsmen to support cross-training and cross-utilization efforts to reduce costs and has proposed several other approaches that should result in effective labor relations.

### **Significant Weakness**

- The Management Team does not have adequate experience managing projects of the size, content and complexity of ROME and lacks full service operational experience in wind tunnels and research facilities.

Subfactor 3, Safety - AECOM received an “Excellent” rating for a comprehensive and thorough proposal of exceptional merit with one significant strength and no deficiencies or significant weaknesses. **The Significant Strength for AECOM under Subfactor 3 is as follows:**

- The creation of an independent ROME Safety and Health Office that meets all NASA standards and is controlled and enforced by a proposed subcontractor. The independence of the safety organization will promote a strong safety program by removing the "control" of safety from line organizations.

Subfactor 4, SDB Participation – AECOM received a “Good” rating for a proposal which shows a reasonably sound response and has no significant strength, deficiency or significant weakness, and contains one strength and no weaknesses.

### **6. Wyle Laboratories (Wyle)**

Wyle received a “Good” rating at the Mission Suitability factor level for a proposal which shows a reasonably sound response and contains numerous significant strengths, no deficiencies and several significant weaknesses. The findings for Wyle are summarized below by Mission Suitability Subfactor.

Subfactor 1, Understanding the Requirements and Approach – Wyle received a “Very Good” rating for a proposal which demonstrates overall competence with numerous significant strengths, no deficiencies and one significant weakness. The significant strengths and significant weakness for Wyle under Subfactor 1 are as follows:

#### **Significant Strengths**

- A plan for implementing new technologies, innovations, and process improvements demonstrates an exceptional understanding of business IT goals for the ROME contract;
- An approach to utilize the EIP is integrated throughout the proposal, which is a very effective strategy for using technology to organize, perform, and control each technical area of the contract and maintain effective lines of communication between the OME&IT work units;
- An innovative approach to provide quality research test data and maximize the availability and reliability of facilities;

- An excellent understanding of typical research facility operations problems in several major areas, including data quality, instrumentation, DAS & FAS, tunnel safety, operations, model, and flow quality;
- Several innovations for operations which are of substantial value to the Government;
- Several outstanding technology innovations for the existing asset management systems;
- An excellent approach to streamline workflow processes and approvals by expanding the use of MAXIMO to manage all of the ROME contract assets (including instrumentation, DAS, and Installation-Accountable Government Property (IAGP)) and to meet the requirements of the Work Request Tracking System (WoRTS);
- An EA/Consolidation approach that indicates an excellent comprehension of the RFP requirements;
- An IT-Security approach that exceeds the SOW requirements (NPG 2810.1) and contains several elements that are of substantial value to the Government, including: an approach that will be compliant with “ISO and SEI-CMM Level 3 standards”; and
- The EIP contains several key features that are of substantial value to the Government, and Wyle’s EIP development and support strategy exceeds the requirements contained in the SOW.

### **Significant Weakness**

- Did not provide an adequate level of detail for the support of FAS and DAS including software/hardware configuration management and software maintenance activities, instead referring extensively to its past performance in these areas. Wyle did not address the implementation of software project management principles or an approach for maintenance and repair of DAS and FAS hardware and software, nor did it address how it will manage the releases of DAS and FAS software or its approach to maintain source code control.

Subfactor 2, Management – Wyle received a “Fair” rating for a proposal in which weaknesses outbalanced any strengths. Under this Subfactor, Wyle has no significant strengths, no deficiencies and several significant weaknesses. **The Significant Weaknesses for Wyle under Subfactor 2 are as follows:**

- Did not adequately address its engineering management approach or its interfaces with existing LaRC processes and procedures during its performance of engineering work; the ambiguities in Wyle’s proposal demonstrate a lack of understanding of the requirements and an inadequate approach for engineering management;
- The Management Team does not have adequate management experience for programs of the size, content, or complexity of the ROME contract. In particular, the Management Team has not demonstrated adequate full service wind tunnel operations experience, facility engineering management or research facilities

operations management experience. The proposed Management Team also does not have adequate management experience or experience in the development, implementation and management of business information technology systems or Enterprise Architecture design; and

- A transition plan that lacks adequate details to determine the suitability of the offeror’s proposed approach with regard to operations and engineering. The Offeror’s approach did not identify either the start date or the sequence of the major research facility transitions. In addition, the proposed Work Integration Manager (WIM), who is designated to lead several major activities (as Deputy Program Manager, WIM, and Transition Manager), does not have either full service wind tunnel or research facility operational experience and appears to have too many major program-level responsibilities, resulting in a decreased focus on transition activities.

Subfactor 3, Safety – Wyle received a “Good” rating for a proposal which shows a reasonably sound response and has no significant strength, deficiency or significant weakness, and contains one strength and no weaknesses.

Subfactor 4, SDB Participation – Wyle received a “Good” rating for a proposal which shows a reasonably sound response and has no significant strength, deficiency or significant weakness, and contains no strengths and one weakness.

## **7. Kellogg Brown and Root (KBR)**

KBR received a “Good” rating at the Mission Suitability factor level for a proposal which shows a reasonably sound response and contains several significant strengths, no deficiencies and one significant weakness. The findings for KBR are summarized below by Mission Suitability Subfactor.

Subfactor 1, Understanding the Requirements and Approach – KBR received a “Good” rating for a proposal which shows a reasonably sound response with two significant strengths, no deficiencies and one significant weakness. The significant strengths and significant weakness for KBR under Subfactor 1 are as follows:

### **Significant Strengths**

- An approach to risk management that includes a 5-step program and is based on NPG 7120.5B, which is an effective methodology in performing risk assessments;
- An IT-Security approach, coupled with the secure technologies incorporated as key features into its proposed EIP, is an effective strategy that exceeds the requirements of NPG 2810.1.

### **Significant Weakness**

- Did not propose any innovations related to research data quality assurance, and did not indicate a clear understanding of the requirements for research test data quality assurance.

Subfactor 2, Management – KBR received a “Good” rating for a proposal which shows a reasonably sound response and has no significant strength, deficiency or significant weakness, and contains four strengths and seven weaknesses.

Subfactor 3, Safety – KBR received a “Very Good” rating for a proposal which demonstrates overall competence with one significant strength and no deficiencies or significant weaknesses. **The Significant Strength for KBR under Subfactor 3 is as follows:**

- A thorough Safety and Health Plan (corporate and LaRC-specific), which includes a commitment to achieve VPP Star Certification within 2 years of the contract start date.

Subfactor 4, SDB Participation – KBR received a “Very Good” rating for a proposal which demonstrates overall competence with one significant strength and no deficiencies or significant weaknesses. **The Significant Strength for KBR under Subfactor 4 is as follows:**

- An SDB plan that reflects an overall level of SDB participation that is significantly higher than the 10% goal set forth in the RFP, reflects executed teaming agreements with 4 SDBs, and incorporates pre-qualification of subcontractors based on the examination of safety, health, and environmental plans, as well as past performance in these areas. KBR’s successful past performance in complying with SDB goals indicates a strong corporate commitment.

## **8. The Cube Corporation (Cube)**

Cube received a “Fair” rating at the Mission Suitability factor level for a proposal in which weaknesses outbalance any strengths, with one significant strength, no deficiencies and numerous significant weaknesses. The findings for Cube are summarized below by Mission Suitability Subfactor.

Subfactor 1, Understanding the Requirements and Approach – Cube received a “Poor” rating for a proposal that contains numerous significant weaknesses that demonstrate a lack of overall competence or would require a major proposal revision to correct. Under Subfactor 1, Cube also has one significant strength and no deficiencies. The significant strength and significant weaknesses for Cube under Subfactor 1 are as follows:

### **Significant Strength**

- A comprehensive plan for management of the metrology program that includes the use of contractor-provided mobile calibration facilities to reduce LaRC turnaround time and minimize the number of instruments sent off-site for calibration, and an ISO 17025 accredited subcontractor, which exceeds the RFP requirements.

### **Significant Weaknesses**

- The Work Management Systems (WMS) architecture as depicted in the proposal is vague and does not provide adequate details or technical approach to determine its ability to serve as the Cube's proposed "key management tool" for organizing, assigning, tracking, performing and controlling each technical area in the SOW. Furthermore, Cube's strategy to "create a portal to [its] WMS" and lack of integration of the WMS portal with the Government's OME Enterprise Information Portal (EIP) does not support the ROME requirements for EA/IT consolidation (SOW 5.2);
- FTE estimates were significantly lower than the Government's estimates for the entire contract, and these discrepancies were not supported by the Offeror's technical proposal (i.e., operational efficiencies that would generate such labor savings were not proposed), indicating a significant lack of understanding of the requirements (the Government estimate was developed using historical data, which was provided to the offerors in the RFP);
- Discussion of typical problems and relevant risk areas in the performance of the ROME contract is generic and does not indicate an adequate level of understanding of the breadth, complexity and inherent risks of research facility operations, maintenance, engineering, and IT requirements for this project;
- Did not provide an approach for providing timely and effective tactical engineering services (ref. SOW section 4.1.1). For example, Cube did not address field consultation, analysis, design modifications, or field verification of drawings;
- Did not clearly articulate its role in the design, construction and activation of facility projects, which indicates a lack of understanding of contract requirements. Cube did not provide an adequate approach for managing the construction (ref. SOW, Section 4.2.4.4) and activation (ref. SOW, Section 4.2.4.4.6) of LaRC facility projects. In addition, the Offeror's proposal does not adequately address design/build projects (ref. SOW, Section 4.2.4.1); and
- An approach to IT Security that is technically flawed. The approach addressed only the element of new product development and did not include a strategy for securing existing systems nor the requirements contained in either SOW 5.3 or NPG 2810.1. In addition, Cube's proposal includes support for the Center's network and firewall that is outside the scope of the ROME SOW and could compromise Cube's overall IT Security approach.

Subfactor 2, Management – Cube received a “Good” rating for a proposal which shows a reasonably sound response with no significant strengths, no deficiencies and one significant weakness. **The Significant Weakness for Cube under Subfactor 2 is as follows:**

- Cube’s phase-in plan for each of the functional areas is vague and lacks adequate detail. For example, the phase-in schedule provided is very high level and lacks sufficient details to demonstrate that Cube will minimize changeover difficulties and maximize continuity of services.

Subfactor 3, Safety – Cube received a “Poor” rating for a proposal that contains one significant weakness that demonstrates a lack of overall competence in the area of Safety and Health or would require a major proposal revision to correct. Under Subfactor 3, Cube has no significant strengths and no deficiencies. **The Significant Weakness for Cube under Subfactor 3 is as follows:**

- The Draft Safety Plan submitted could not be implemented without major rework because of the omission of items required in RFP Attachment 1, Safety and Health Plan Instructions. Major omissions include: (a) no mention of the use of the LaRC Lockout/Tagout; (b) no specific mention of required Quarterly Safety Report; (c) no mention or discussion of ionizing or non-ionizing radiation safety requirements; (d) no mention of the use of the LaRC Chemical Materials Tracking System (CMTS), LaRC Form 44, nor mention of awareness training for all employees; and (e) no mention of Crane Certifications, use of Scaffolding, requirements for LaRC Digging Permits, Fall Protection, blood borne pathogens, or requirements for a LaRC Hotwork Permit.

Subfactor 4, SDB Participation – By electing not to waive the 10% SDB price evaluation adjustment, Cube received 0 points out of the 100 available for Subfactor 4. This is in accordance with the RFP and NFS 1815.304(c)(4)(B).

## **B. FACTOR 2: COST**

The cost evaluations were based upon the proposed cost and fee to perform the required effort. There is approximately a 10 % difference between the highest and lowest proposed cost and fee. The ranking from lowest to highest for the proposed cost and fee is as follows:



<u>Offeror</u>	<u>Proposed Cost (incl. Fee)</u>
Wyle	\$ 915.9M
KBR	\$ 919.1M
CSC	\$ 928.0M
AECOM	\$ 935.0M
Raytheon	\$ 963.9M
JS	\$ 966.0M *
VAS	\$ 998.3M
Cube	\$ 1,007.0M

\* Jacobs Sverdrup incorrectly added its CLIN values in the “TOTAL” column in contract paragraph B.5, “TOTAL CONTRACT VALUE”. This resulted in a total figure at the bottom of “TOTAL” column that was \$9.7M higher than the sum of the CLIN values. Upon the Contracting Officer’s review of JS’s Cost Form I, it appeared that JS failed to adjust its “TOTAL” column when the Government-mandated contract IDIQ maximum value was reduced by \$9.7M in RFP Amendment 2, even though JS acknowledged Amendment 2. Because the incorrect summing of the CLIN values on each row in B.5 was merely a clerical error, the C.O. asked JS to clarify whether this was a mathematical error, and if so, to correct it as permitted by FAR 15.306(a)(2). As a result of JS’s clarification, JS’s total proposed price for the ten-year term of the contract was confirmed to be \$966.0M instead of \$975.7M.

The SEB evaluated the validity of the proposed costs in terms of the offerors’ understanding of the requirements and cost realism. Cost realism adjustments did not exceed the 5% threshold specified in the RFP, thus no adjustments were made to the Mission Suitability scores for any of the offerors.

A probable cost was developed for each offeror in accordance with the RFP. I carefully analyzed the cost evaluations, and questioned the SEB on the adjustments made to derive probable costs for the eight offerors. The difference in probable cost (including fee) is approximately 10 % from highest to lowest. The ranking based on probable cost (including fee) from lowest to highest, plus the Government estimate, are as follows:

<b><u>Offeror</u></b>	<b><u>Probable Cost (Incl. Fee)</u></b>	<b><u>Probable Cost Confidence</u></b>
Wyle	\$ 925.4M	MODERATE
KBR	\$ 934.0M	MODERATE
AECOM	\$ 945.5M	MODERATE
Raytheon	\$ 963.5M	LOW
JS	\$ 968.5M	MODERATE
CSC	\$ 971.9M	LOW
VAS	\$ 998.2M	MODERATE
Cube	\$ 1,019.1M	LOW
Gov't. Est.	\$ 945.7M	n/a

Probable Cost Confidence is the degree to which the probable costs can be relied upon to ascertain the likely cost of performance for each firm. The Probable Cost Confidence was derived from the offeror's proposal, information received from the Defense Contract Audit Agency, and the cost analysis performed by the NASA Price Analysts and the Source Evaluation Board. Confidence levels were established based on the information available, the number and significance of concerns, and the number and significance of adjustments for each offeror.

The RFP provided ODC plug numbers for specified SOW Sections. The RFP in L.16(f)6(e) instructed the offerors to use those plug numbers for those specified SOW Sections. They were further instructed to propose ODCs for all other SOW Sections as necessary to perform the work in these sections. Four of the eight offerors failed to follow these instructions. In these instances, the SEB made adjustments to the proposed ODCs for those offerors to establish their probable costs. However, these adjustments alone did not cause any of the four offerors to receive a lower probable cost confidence rating.

As permitted by the RFP, the Cube Corporation invoked the small disadvantaged business (SDB) price evaluation adjustment in its proposal. Accordingly, the probable costs of each of the other seven offerors (none of which are SDBs) were increased by 10% to arrive at their "Evaluated Price". Cube's probable cost, without further adjustment, was used as its Evaluated Price. Each offeror's Evaluated Price was used for purposes of selection of the successful offeror. There is approximately an 8 % difference between the highest and lowest evaluated price after making this adjustment. The ranking from lowest to highest for the evaluated price is as follows:

<u>Offeror</u>	<u>Evaluated Price (Incl. Fee)</u>
Wyle	\$ 1,017.9M
Cube	\$ 1,019.1M
KBR	\$ 1,027.4M
AECOM	\$ 1,040.1M
Raytheon	\$ 1,059.9M
JS	\$ 1,065.4M
CSC	\$ 1,069.1M
VAS	\$ 1,098.0M

Where used below, the definition of the term “significant subcontractor” is “any subcontract exceeding \$1 million annually”, which is the same as in the definition in the RFP. The following summaries of the Cost/Price analysis for each of the eight offerors (presented in order of Evaluated Price from lowest to highest) include the probable cost adjustments made for each firm and the most significant concerns the Government has with each Cost/Price proposal:

### 1. Wyle

#### Significant Adjustments:

Prime contractor probable cost adjustments in this paragraph are shown net of changes, where necessary, to applicable indirect costs and/or incentive fee. A upward net probable cost adjustment of \$5.6M was made to account for omitted escalation for Wage Determination (WD) labor; the escalation rates applied to non-WD labor in Wyle’s proposal were used to make this adjustment.

Probable costs for subcontractors were increased by \$3.9M, which includes changes where necessary to prime load and/or incentive fee. The following subcontractor probable cost adjustment details do not include changes to prime load or incentive fee: Johnson Controls, Inc. (JCI) has a probable cost increase of \$7.4M to account for omitted labor escalation for approximately 45 WD and Collective Bargaining Agreement (CBA) FTEs. Probable cost for one subcontractor was decreased to account for overstated insurance costs, and the probable costs of several other subcontractors were decreased to account for overstated escalation costs.

#### Concerns:

The confidence level of Mainthia, a significant subcontractor that is to perform 20% of the subcontracted effort, has been determined to be low. Mainthia did not provide narrative support for the spreadsheets in its cost proposal, as required in the RFP. JCI’s proposed labor rates for 24 FTE are not comparable to the WD or CBAs or have no

comparable category or rate, and JCI also has several other inconsistencies. XANSA, another proposed subcontractor, provided indirect rates in the narrative of its proposal that do not correlate with those used in its spreadsheet.

## 2. Cube

### Significant Adjustments:

Prime contractor probable cost adjustments in this paragraph are shown net of changes, where necessary, to applicable indirect costs and/or incentive fee. A downward net probable cost adjustment of \$2.2M was made to Cube's proposal to account for overstated Hampton Business Taxes (HBT). An upward net probable cost adjustment of \$20M was made to Cube's Material/Equipment/Supplies and Other ODC primarily for missing materials costs in SOW Section 3.1, Facility Maintenance Services.

Probable costs for subcontractors were decreased by \$4.9M, which includes changes where necessary to prime load and/or incentive fee. The following subcontractor probable cost adjustment details do not include changes to prime load or incentive fee: TranSystems Corporation, a significant subcontractor, had a probable cost decrease of \$8.1M to to account for a formula error in its "Other Overhead Costs" element.

With regard to the ODC adjustment noted above, Cube proposed amounts only slightly above the RFP plug numbers for SOW Section 3.1. As was stated in the RFP, the plug numbers for SOW Section 3.1 only covered certain items in Subsections 3.1.4 and 3.1.5. Except for the RFP plug numbers, Cube's proposal provided no costs for materials in SOW Section 3.1. For example, the Government has estimated that subsections 3.1.6 (Trouble Calls) and 3.1.9 (Major Repairs) alone will require a combined \$29M in materials over the 10-year life of the ROME contract. These numbers could have been derived from the historical information that was provided in the RFP Attachments 3.1 and 3.5.

### Concerns:

Most notably, the hard copy and the electronic proposal were not consistent (the proposed price on the hard copy was higher), and contrary to the RFP instructions, much of the cost information is provided as absolute values rather than the stipulated self-calculating spreadsheets, and no support or explanation of the absolute values is offered. For these reasons, proposed costs could not be adequately verified. The reliability of the information provided is questionable based on the accumulation of inconsistencies and errors in the spreadsheets, and this negatively impacted probable cost confidence. The prime's cost forms reflect subcontract costs \$1.9M lower than those proposed by the subcontractors themselves; no explanation for this difference is provided. The confidence levels of Boeing, Sypris and TranSystems, significant subcontractors that are to perform a combined 88% of the subcontracted effort, have been determined to be low. In addition, Boeing's Cost Proposal (including its spreadsheets) was submitted in Adobe Reader, which is not in accordance with RFP instructions that required the use of self-

calculating spreadsheets in Excel; therefore, the Government's ability to verify the accuracy of Boeing Cost Proposal was limited. In addition, Sypris and TranSystems did not provide narrative explanations as required in the RFP. DCAA does not have information on the business systems of either Sypris or TranSystems; therefore, their accounting systems are not approved.

### **3. KBR**

#### Significant Adjustments:

Prime contractor probable cost adjustments in this paragraph are shown net of changes, where necessary, to applicable indirect costs and/or incentive fee. KBR had a downward net probable cost adjustment of \$4.0M to account for overstated escalation for Exempt and WD labor. KBR had an upward net probable cost adjustment of \$23.1M to account for understated Material/Equipment/Supplies and Other ODCs, primarily for missing materials costs in SOW Section 3.1, Facility Maintenance Services.

Probable costs for subcontractors were decreased by \$2.1M, which includes changes where necessary to prime load and/or incentive fee. The following subcontractor probable cost adjustment details do not include changes to prime load or incentive fee: The probable costs of several significant subcontractors were decreased to account for overstated labor escalation, and the probable cost of one significant subcontractor was decreased to account for a formula error that overstated fixed fee.

With regard to the ODC adjustment noted above, KBR proposed amounts only slightly above the RFP plug numbers for SOW Section 3.1. As was stated in the RFP, the plug numbers for SOW Section 3.1 only covered certain items in Subsections 3.1.4 and 3.1.5. KBR's proposal thus provided no costs for materials in any other subsections in 3.1. For example, the Government has estimated that subsections 3.1.6 (Trouble Calls) and 3.1.9 (Major Repairs) alone will require a combined \$29M in materials over the 10-year life of the ROME contract. These numbers could have been derived from the historical information that was provided in the RFP Attachments 3.1 and 3.5.

#### Concerns:

The parent company of KBR has informed the Government that it has proceeded with a Chapter 11 bankruptcy filing, but states that the filing will have no impact on this procurement. The impact of this action is currently under review by DCAA, and there is some level of concern that the costs associated with the bankruptcy filing could ultimately impact the ROME contract. The prime's cost forms reflect subcontract costs \$2.0M lower than those proposed by the subcontractors themselves; no explanation for this difference is provided. The confidence levels of ORC and TDI, significant subcontractors that are to perform a combined 22% of the subcontracted effort, have been determined to be low. TDI had numerous inconsistencies among its Cost Forms and supporting spreadsheets, such as hours, cost elements, and unsupported use of absolute values. Support for TDI rates is inadequate or not provided, and its accounting system is

not fully adequate. ORC's formulas for several cost areas are not adequately explained, and thus cannot be relied upon with confidence.

#### **4. AECOM**

##### Significant Adjustments:

Prime contractor probable cost adjustments in this paragraph are shown net of changes, where necessary, to applicable indirect costs and/or incentive fee. AECOM had a downward net probable cost adjustment of \$1.4M to account for an error in calculating Personal Leave hours that resulted in an overstated Fringe Rate. AECOM had an upward net probable cost adjustment of \$8.8M to account for understated Material/Equipment/Supplies and Other ODC, primarily for missing materials costs in SOW area 3.1, Facility Maintenance Services.

Probable costs for subcontractors were increased by \$3.1M, which includes changes where necessary to prime load and/or incentive fee. The following subcontractor probable cost adjustment details do not include changes to prime load or incentive fee: Swales Aerospace had an upward probable cost adjustment of \$2.9M to account for understated hours for paid absences and overhead costs associated with those hours. There were no other adjustments for significant subcontractors.

With regard to the ODC adjustment noted above, AECOM proposed amounts representing approximately one-half of the Government estimate for SOW Section 3.1. As was stated in the RFP, the plug numbers for SOW Section 3.1 only covered certain items in Subsections 3.1.4 and 3.1.5. AECOM's proposal did not address cost for subsection 3.1.9, Major Repairs. For example, the Government has estimated that subsection 3.1.9 (Major Repairs) alone will require \$17.1M in materials over the 10-year life of the ROME contract. This number could have been derived from the historical information that was provided in the RFP Attachment 3.5.

##### Concerns:

AECOM incorrectly stated that a work order will be issued for planning/estimating of IDIQ work, which may result in contract management understaffing. There was an accumulation of errors and inadequate explanations in the cost proposal (e.g., AECOM's approach to leasing vehicles and numerous errors in calculation of ODC) that negatively impacted probable cost confidence. The confidence levels of Navarro and Unisys, significant subcontractors that are to perform a combined 40% of the subcontracted effort, have been determined to be low. Navarro has errors and missing information in significant areas of its cost proposal. Unisys has numerous formula errors (>60) in its spreadsheets and inconsistency among Cost Forms in costs, rates, and hours.

## 5. Raytheon

### Significant Adjustments:

Probable costs for subcontractors were decreased by a net \$0.4M, which includes changes where necessary to prime load and/or incentive fee. The following subcontractor probable cost adjustment details do not include changes to prime load or incentive fee: Allied Aerospace had an upward probable cost adjustment of \$3.0M to account for omitted escalation for WD labor. Allied Aerospace also had a downward probable cost adjustment of \$2.3M to account for an overstated escalation rate for all labor. DTSV had a downward probable cost adjustment of \$0.4M to account for overstated holiday hours in contract periods that are shorter than one year.

### Concerns:

Raytheon's narrative explanations for proposed costs were not always adequate nor were they applied consistently in its electronic spreadsheets. Information to establish total cost flowed from numerous contractor-established files and spreadsheets that were not consistently linked to the cost forms provided in the RFP. The prime reduced the subcontractors' costs by \$8.5M on the basis of efficiencies to be gained through R6 Sigma process improvements, VPP, ISO, and IT projects. However, it was not explained why these Raytheon "efficiencies" were proposed as reductions to subcontractor costs. Raytheon's SAP accounting system is currently under review and control risk is assessed by DCAA as high. All other systems, except estimating, determined inadequate or inadequate in part. The confidence levels of ACI, DTSV, HEI, and NTECH-Lab, significant subcontractors that are to perform a combined 64% of the subcontracted effort, have been determined to be low. ACI's indirect rates are not consistent in derivation or application basis, and there are no current DCAA systems reviews or rate information for ACI. HEI, NTECH and DTSV proposed indirect rates that are not adequately supported and, in some cases, not consistently applied. Allied Aerospace's proposal is unclear as to how the proposed indirect rates were derived, and its accounting system is inadequate in part. Allied is proposed to perform 27% of the subcontracted effort.

## 6. JS

### Significant Adjustments:

Probable costs for subcontractors were increased by \$2.5M, which includes changes where necessary to prime load and/or incentive fee. The following subcontractor probable cost adjustment details do not include changes to prime load or incentive fee: The only adjustment to significant subcontractor costs was a downward probable cost adjustment of \$3.0M to AS&M to account for overhead costs that were omitted due to a spreadsheet formula error.

Concerns:

There were minor issues related to a lack of clarity in some areas (e.g., possible overlap of direct and indirect management costs). The prime's cost forms reflect subcontract costs \$2.4M lower than those proposed by the subcontractors themselves; no explanation for this difference is provided. The confidence level of AS&M, a significant subcontractor that is to perform 33% of the subcontracted effort, has been determined to be low. AS&M had numerous inconsistencies in its cost information (e.g., its summary spreadsheet is not consistent with its supporting cost forms). Tessada, another proposed subcontractor, provided no narrative explanation with its cost proposal.

## 7. CSC

Significant Adjustments:

Prime contractor probable cost adjustments in this paragraph are shown net of changes, where necessary, to applicable indirect costs and/or incentive fee. An upward net probable cost adjustment of \$5.9M was made to account for omitted escalation for Wage Determination (WD) labor; the escalation rates applied to non-WD labor in CSC's proposal were used to make this adjustment. A downward net probable cost adjustment of \$3.2M was made to account for overstated costs resulting from errors in the calculation of Hampton Business Taxes. An upward net probable cost adjustment of \$27.6M was made to account for understated Material/Equipment/Supplies and Other ODCs, which were adjusted primarily for missing materials costs in SOW area 3.1, Facility Maintenance Services.

Probable costs for subcontractors were increased by \$12.9M, which includes changes where necessary to prime load and/or incentive fee. The following subcontractor probable cost adjustment details do not include changes to prime load or incentive fee: For Lockheed Martin, an upward probable cost adjustment of \$10.0M was made to account for omitted escalation for Wage Determination (WD) labor covering 50.6 FTE. For Tri-Star Engineering, an upward probable cost adjustment of \$1.5M was made to account for omitted escalation for Wage Determination (WD) labor in Periods 1 – 6, an upward probable cost adjustment of \$1.9M was made to account for understated Period 12 costs resulting from Tri-Star's understatement of the 12-month length of Period 12, and a downward probable cost adjustment of \$0.9M was made to account for overstated "cash in lieu of benefits" costs. For Hampton University, an upward probable cost adjustment of \$0.4M was made to account for omitted escalation for Wage Determination (WD) labor.

With regard to the ODC adjustment noted above, CSC proposed amounts only slightly above the RFP plug numbers for SOW Section 3.1. As was stated in the RFP, the plug numbers for SOW Section 3.1 only covered certain items in Subsections 3.1.4 and 3.1.5. CSC's proposal thus provided no costs for materials in any other subsections in 3.1. For example, the Government has estimated that subsections 3.1.6 (Trouble Calls) and 3.1.9 (Major Repairs) alone will require a combined \$29M in materials over the 10-year



life of the ROME contract. These numbers could have been derived from the historical information that was provided in the RFP Attachments 3.1 and 3.5.

Concerns:

The reliability of some of the information provided is questionable based on the accumulation of inconsistencies and lack of clarity. CSC's summary total contract cost form is not in agreement with the supporting Government cost forms required by the RFP. CSC's cost forms reflect subcontract costs \$1.1M lower than those proposed by the subcontractors themselves; no explanation for this difference is provided. Five of CSC's business systems (billing, budget, compensation, estimating and indirect ODCs) were determined inadequate by DCAA, and CSC is awaiting DCAA final audit approval of its upgraded accounting systems. The confidence levels of Tri-Star and YEI, significant subcontractors that are to perform a combined 41% of the subcontracted effort, have been determined to be low. Tri-Star had numerous spreadsheet anomalies that negatively impacted its probable cost confidence. YEI did not apply escalation to WD labor categories, and overstated escalation to CBA labor categories (these two areas are offsetting, so no probable cost adjustment was made). YEI's cost narrative included discussion of a "Management and Administrative" category, but no costs for this category could be identified.

## 8. VAS

Significant Adjustments:

Probable costs for subcontractors were decreased by a net \$0.1M, which includes changes where necessary to prime load and/or incentive fee. The following subcontractor probable cost adjustment details do not include changes to prime load or incentive fee: For GTSI, three downward probable cost adjustments totaling \$0.3M were made to account for overstated paid absences, escalation and insurance costs; these overstatements of cost resulted from calculation errors in all contract periods that are shorter than one year.

Concerns:

VAS, which is a Joint Venture, does not have an approved accounting system, and its indirect rates have never been reviewed by the DCAA. VAS's cost forms reflect subcontract costs \$1.4M lower than those proposed by the subcontractors themselves; no explanation for this difference is provided. ASE, a significant subcontractor, provided only 2 pages of information to support its cost proposal. ERC, another significant subcontractor, has an accounting system that is inadequate in part, and DCAA has conducted no other systems reviews of ERC.

### **C. FACTOR 3: PAST PERFORMANCE**

Set forth in order of adjective ratings from highest to lowest is a summary of the Past Performance findings for the eight offerors. Offerors with identical adjective ratings (e.g., both JS and VAS are identically rated as “Excellent”) are listed alphabetically. While the findings below generally refer only to the prime contractor offeror by name, the past performance of the prime plus the past performance of all significant subcontractors were considered in developing these findings. More specific details of the past performance findings for each offeror can be found in the comparative analyses between the successful offeror’s proposal and the other seven offerors’ proposals in the “Basis for Selection” section of this Source Selection Statement.

#### **1. “Excellent” Overall Ratings: JS and VAS**

##### **JS**

JS received an “Excellent” overall rating for Past Performance, with an “Excellent” rating on the performance component of this Factor and a “Highly Relevant” rating on the relevance component of this Factor.

JS’s past performance has been exemplary, with contract requirements achieved in a timely, efficient and economical manner. The preponderance of customer past performance ratings for JS were in the “Excellent” range. Only one performance deficiency was identified; that deficiency involved a subcontractor that was deemed “slow to bring skilled employees on board when required”. Because this subcontractor will be performing such a small part of the ROME contract, this deficiency is considered to be very minor with no adverse effect on overall performance. JS has highly relevant experience in a large majority of the SOW areas, very relevant experience in a number of others, and no relevant experience in only two areas: experience with SAP and maintenance of institutional facilities and systems. The latter is mitigated by JS’s experience in maintaining complex research facilities. Comparing JS’s experience to the SOW requirements, its past performance is judged to be highly relevant to the ROME requirements, and its performance is judged to be excellent.

##### **VAS**

VAS received an “Excellent” overall rating for Past Performance, with an “Excellent” rating on the performance component of this Factor and a “Highly Relevant” rating on the relevance component of this Factor.

VAS’s past performance has been exemplary, with contract requirements achieved in a timely, efficient and economical manner. The preponderance of customer past performance ratings for VAS were in the “Very Good” to “Excellent” range. However, URS (the parent company of one of the VAS joint venture partners) and ASE (a proposed subcontractor) had a small number of deficiencies in their performance reported by

customers. Specifically, URS had some problems managing construction subcontractors on its Hill AFB contract, and ASE had problems providing adequate engineering support on contracts at the Glenn and Langley Research Centers. However, when taken in the context of VAS's overall performance, these deficiencies were considered to be very minor in nature with no adverse effect on overall performance. VAS has highly relevant experience in numerous areas, including OM&E for institutional and research facilities, business IT consolidation and support, research facility and wind tunnel engineering and design/build/activation, tactical engineering for maintenance, operation, and recertification of pressure systems, and consolidation of efforts similar in size, content and complexity to ROME. VAS has very relevant experience in several areas, most notably operations and management of test facilities on contracts similar in size and complexity to ROME, DAS and FAS, and providing a comprehensive RCM based (institutional) maintenance program. VAS demonstrates relevant experience in the following areas: IM&TE and metrology management. VAS did not demonstrate relevant experience in Enterprise Architecture design. Comparing VAS's experience to the SOW requirements, its past performance is judged to be highly relevant to the ROME requirements, and its performance is judged to be excellent.

## **2. “Very Good” Overall Ratings: CSC, KBR, Raytheon, and Wyle**

### **CSC**

CSC received a “Very Good” overall rating for Past Performance, with a “Very Good” rating on the performance component of this Factor and a “Very Relevant” rating on the relevance component of this Factor.

CSC has demonstrated very effective performance that is fully responsive to contract requirements; CSC has accomplished contract requirements in a timely, efficient, and economical manner for the most part. The preponderance of customer past performance ratings for CSC were in the “Very Good” range. CSC and its subcontractor Lockheed Martin had a few deficiencies in their performance reported by customers (primarily in the area of cost control), but taken in the context of CSC's overall performance, these deficiencies were considered to be only minor in nature with minimal effect on overall performance. CSC has highly relevant experience in several SOW areas, most notably institutional facilities maintenance, central utilities operations, and IT. CSC has very relevant experience in several areas, including the critical area of wind tunnel testing and operations. CSC has relevant experience in management areas such as apprenticeship and cross training programs, collection and utilization of performance metrics, and the implementation of innovative cost savings, and has no relevant experience in several areas, most notably in maintenance and tactical engineering support for wind tunnels; instrument metrology and test equipment calibration services; and maintenance and engineering support for Data Acquisition Systems (DAS) and Facility Automation Systems (FAS). Comparing CSC's experience to the SOW requirements, its past performance is judged to be very relevant to the ROME requirements, and its performance is judged to be very good.

## **KBR**

KBR received a “Very Good” overall rating for Past Performance, with a “Very Good” rating on the performance component of this Factor and a “Very Relevant” rating on the relevance component of this Factor.

KBR demonstrated very effective performance that is fully responsive to contract requirements, with contract requirements accomplished in a timely, efficient, and economical manner for the most part. The preponderance of customer past performance ratings for KBR were in the “Very Good” to “Excellent” range. Only one deficiency was identified: Akima, KBR’s proposed research operations subcontractor, has experienced difficulty managing the transition from augmentation work at research facilities to providing full service research facility operations under a Glenn Research Center (GRC) contract. Taken in the context of KBR’s overall performance, this deficiency is considered to be only minor in nature with minimal effect on overall performance. KBR has highly relevant experience managing large contract efforts, and very relevant experience in base operations, including training and development of technical, safety, and quality personnel, research facility maintenance, and RCM program development and management. The KBR team, specifically Akima, has relevant experience in the transition of wind tunnel operations from Government to Contractor personnel. KBR did not demonstrate relevant experience in the following areas: full service wind tunnel operations; wind tunnel facility engineering; DAS and FAS maintenance and development; EA design; and consolidation of disparate customer service desks. Comparing KBR’s experience to the SOW requirements, its past performance is judged to be very relevant to the ROME requirements, and its performance is judged to be very good.

## **Raytheon**

Raytheon received a “Very Good” overall rating for Past Performance, with an “Excellent” rating on the performance component of this Factor and a “Very Relevant” rating on the relevance component of this Factor.

Raytheon’s past performance has been exemplary, with contract requirements achieved in a timely, efficient and economical manner. The preponderance of customer past performance ratings for Raytheon were in the “Excellent” range. Only one deficiency was identified: NCI, which is proposed as an IT subcontractor, experienced several management related problems on its LaRC CLASSIC contract (e.g., communications, work process innovations, reactive versus proactive). Taken in the context of Raytheon’s overall performance, this deficiency is considered to be very minor in nature with no adverse effect on overall performance. Raytheon has highly relevant experience in numerous areas, most notably transition of workforce (civil servant to contractor) and facilities; contract consolidations; performing central utilities operations; RCM-based

maintenance programs; and business IT consolidations and support. Raytheon has very relevant experience in several areas, including wind tunnel operations support, and has relevant experience in providing FAS, DAS, and research systems support. Raytheon did not demonstrate relevant experience in research engineering projects including design, construction, and activation; metrology and calibration support; and the development and implementation of comprehensive training programs. Comparing Raytheon's experience to the SOW requirements, its past performance is judged to be very relevant to the ROME requirements, and its performance is judged to be excellent.

## **Wyle**

Wyle received a "Very Good" overall rating for Past Performance, with a "Very Good" rating on the performance component of this Factor and a "Very Relevant" rating on the relevance component of this Factor.

Wyle demonstrated very effective performance that is fully responsive to contract requirements, with contract requirements accomplished in a timely, efficient, and economical manner for the most part. The preponderance of customer past performance ratings for Wyle were in the "Very Good" range. However, Wyle's customers reported several issues and concerns in performance, the most significant of which are as follows: Over the last five award fee periods under the LaRC RIMS contract, specific weaknesses were noted for recurring Wyle management practices that resulted in several technical and cost control problems. On the LaRC FESS contract, JCI (a proposed subcontractor) experienced two lost time accidents in 2003 and had difficulty completing maintenance projects in a timely manner. LBB, another proposed subcontractor, was cited by Ft. Carson for an inability to develop and meet realistic project cost estimates. When taken in the context of Wyle's overall performance, these deficiencies were considered to be only minor in nature with a minimal effect on overall performance. Wyle has highly relevant experience in numerous areas, the most notable of which are institutional and research facility maintenance; DAS and instrumentation operations, engineering, calibration, and repair services; central utilities operation experience; RCM-based maintenance for facilities and facility systems and projects; base/center operations for Government and commercial customers, and business IT consolidation and support, including experience with many of LaRC's current systems (e.g., INFO PC, Maximo). Wyle has relevant experience in transition of Government-to-contractor operations and contract consolidations. Wyle has no relevant experience in the following areas: full service operation of wind tunnels; wind tunnel facilities engineering, including tactical engineering; designing, constructing, and activating wind tunnel construction projects; FAS maintenance and engineering, and developing and implementing a comprehensive personnel training program. Comparing Wyle's experience to the SOW requirements, its past performance is judged to be very relevant to the ROME requirements, and its performance is judged to be very good.

### **3. “Good” Overall Ratings: AECOM and Cube**

#### **AECOM**

AECOM received a “Good” overall rating for Past Performance, with an “Excellent” rating on the performance component of this Factor and a “Relevant” rating on the relevance component of this Factor.

AECOM’s past performance has been exemplary, with contract requirements achieved in a timely, efficient and economical manner. The preponderance of customer past performance ratings for AECOM were in the “Very Good” to “Excellent” range. No deficiencies in performance were identified. AECOM demonstrated highly relevant experience in some SOW work areas, most notably institutional facility engineering and construction of complex projects, metrology and instrumentation, transitioning from CS to contractor and integrating subcontractors, and business IT consolidation and support. AECOM demonstrated relevant experience in some vital areas, including wind tunnel operations, and no relevant experience with SAP products or in the following key technical areas: Enterprise Architecture (EA) planning and development; wind tunnel and related system engineering and design; and Reliability Centered Maintenance. Comparing AECOM’s experience to the SOW requirements, its past performance is judged to be relevant to the ROME requirements, and its performance is judged to be excellent.

#### **Cube**

Cube received a “Good” overall rating for Past Performance, with a “Very Good” rating on the performance component of this Factor and a “Relevant” rating on the relevance component of this Factor.

Cube demonstrated very effective performance that is fully responsive to contract requirements, with contract requirements accomplished in a timely, efficient, and economical manner for the most part. The preponderance of customer past performance ratings for Cube were in the “Very Good” range. Only one minor deficiency (concerning the delivery of effective engineering services by TranSystems, a proposed subcontractor) was identified, but taken in the context of Cube’s overall performance, this deficiency is considered to have only a minimal effect on overall performance. Cube (specifically Boeing, a proposed subcontractor) has highly relevant experience in wind tunnel operation and test technique development. Cube has very relevant experience in the following areas: maintaining large institutional complexes; IT systems support; and managing workload fluctuations, and the proposed Program Manager has very relevant experience for work similar in size and complexity to ROME. Cube did not demonstrate relevant experience in several SOW areas, including business IT consolidation and support, developing and implementing a comprehensive technical personnel training program, reliability-centered maintenance (RCM), and research facility engineering experience that is similar in size, content, and complexity to ROME. Comparing Cube’s

experience to the SOW requirements, its past performance is judged to be relevant to the ROME requirements, and its performance is judged to be very good.

### **Past Performance Ratings Summary**

<b><u>Offeror</u></b>	<b><u>Adjective Rating</u></b>
JS	Excellent
VAS	Excellent
CSC	Very Good
KBR	Very Good
Raytheon	Very Good
Wyle	Very Good
AECOM	Good
Cube	Good

## **VII. Basis for Selection**

The following includes my analyses of the comparative strengths and weaknesses of the winning proposal versus the other seven proposals, the source selection decision and the basis for that decision. It is my opinion that the SEB conducted a fair and unbiased evaluation of proposals and that their evaluation is fully in accordance with the evaluation factors set forth in the RFP. In conducting my comparative analyses and making my decision, I adhered to the “RELATIVE IMPORTANCE OF EVALUATION FACTORS” set forth in Section M.3 of the RFP, which states that the three evaluation factors, Mission Suitability, Price/Cost, and Past Performance, are to be considered essentially equal in the selection of a contractor and that Mission Suitability and Past Performance, when combined, are significantly more important than Price/Cost.

### **A. Comparative Analyses**

My comparative analysis of the successful offeror’s (Jacobs Sverdrup) proposal versus each of the other seven proposals (in alphabetical order) follows. No overall ranking of the other seven proposals was established.

#### **1. JS compared to AECOM:**

Under **Factor 1 (Mission Suitability)** the JS proposal is rated as “Excellent” while the AECOM proposal is rated as “Very Good”.

**Subfactor 1, Understanding the Requirements and Approach:** The JS proposal offers substantially greater value to the Government than the AECOM proposal offers under Mission Suitability Subfactor 1.

**Subfactor 1 – Areas of Superior Value in AECOM’s Proposal**

None.

**Subfactor 1 – Areas of Superior Value in JS’s Proposal**

JS’s proposed innovations, technologies and process improvements cut across all areas of the statement of work, are deemed to be a significant strength and are superior to those proposed by AECOM. In comparison, while AECOM has a significant strength for its innovative systems engineering approach for tactical engineering, configuration management and pressure systems recertification, JS’s numerous proposed innovations are considered to be of greater value to the Government because they demonstrate a much better overall understanding of the ROME requirements. JS also provides superior value to the Government through its significant strengths in the following areas, for which there are no corresponding strengths in the AECOM proposal: (1) a highly innovative and effective approach to establishing and maintaining effective communication between JS’s own work units and between JS and LaRC clients; (2) several proposed approaches for maximizing the availability and productivity of research facilities that demonstrate a sound understanding of the requirements; (3) an exceptional demonstrated understanding of typical problems associated with research facility operations; (4) a highly effective approach to ensure test data quality; (5) several maintenance innovations for facility repair cost avoidance; (6) proposed innovations for utilizing existing asset management systems to achieve accuracy and quality of facility maintenance data; (7) the innovative use of technology and corporate reach back to improve the quality of engineering designs; (8) an effective strategy for IT consolidation/EA implementation; and (9) a comprehensive list of risk elements, a risk probability and impact rating, and a detailed risk mitigation strategy that demonstrates an understanding of the risks associated with the ROME contract.

The AECOM proposal has the following significant weaknesses in Subfactor 1: (1) AECOM’s proposed movement of multiple applications protocols through the LaRC firewall (T2 to T3) creates a significant IT security risk for LaRC; (2) AECOM only addresses IT security at the user access level, and does not address IT infrastructure security or NASA IT Security Policy as set forth in NPG 2810.1 (JS has a weakness for a vague IT security approach); additionally, AECOM’s proposed approach will create an IT security risk due to the transmission of proprietary data and documents in the clear over public lines; and (3) AECOM’s proposed facility maintenance staffing is significantly lower than the Government estimate, and this discrepancy is not supported by the Offeror’s technical proposal (i.e., operational efficiencies that would generate such labor savings are not proposed), indicating a significant lack of understanding of the requirements (the Government estimate was developed using historical data, which was provided to the offerors in the RFP).



**Subfactor 1 - Areas with Similar Value**

None.

**Subfactor 2, Management:** The JS proposal offers substantially greater value to the Government than the AECOM proposal offers under Mission Suitability Subfactor 2.

**Subfactor 2 - Areas of Superior Value in AECOM's Proposal**

AECOM's significant strength for its proposal to invest a highly substantial amount of its own money in human capital development, equipment and research facility marketing is considered superior to JS's significant strength for its approach to invest a significant but lesser amount of its own money in essentially the same areas. AECOM also proposes a labor relations approach that is considered a significant strength and superior to JS's because AECOM has a signed, formal agreement with the unions while JS has not demonstrated a plan that is developed to this level, even though JS has a strength for its approach.

**Subfactor 2 - Areas of Superior Value in JS's Proposal**

JS's proposed Management Team merits a significant strength for its strong relevant experience managing projects of the size, content and complexity of ROME, particularly in the area of wind tunnel testing in multiple facilities covering a speed range comparable to that in LaRC's suite of facilities, while AECOM's Management Team represents a significant weakness due to its lack of experience managing projects of the size, content and complexity of ROME and a lack of full service wind tunnel experience. JS also provides superior value to the Government through its significant strengths in the following areas, for which there are no corresponding strengths in the AECOM proposal: (1) a comprehensive management approach supported by an organizational structure established and aligned on the basis of 15 well-defined core processes with assigned JS owners; (2) an aggressive, credible and detailed approach to cost reductions and cost control that includes new technologies, innovations, and process improvements, with the majority of the productivity gains to be achieved in the first five years of the contract; and (3) a comprehensive discussion of transition-related risks and mitigation approaches that will significantly minimize changeover difficulties and maximize continuity of services.

**Subfactor 2 - Areas with Similar Value**

None.

**Subfactor 3, Safety:** The AECOM proposal offers greater value to the Government than the JS proposal offers under Mission Suitability Subfactor 3. AECOM has a superior technical approach that includes a strong Safety and Health Plan and the proposed creation of an independent ROME Safety and Health Office that will meet all NASA standards, which is considered a significant strength. In comparison, JS also has a

significant strength for its thorough Safety and Health Plan, but AECOM's overall approach to safety and health is considered to be of greater value than JS's approach because the independent safety office will better ensure a safe working environment.

**Subfactor 4, SDB Participation:** The JS proposal offers slightly greater value to the Government than the AECOM proposal offers under Mission Suitability Subfactor 4. Both JS and AECOM propose credible approaches for SDB participation with enforceable commitments to subcontractors. Both firms also demonstrate successful past performance in meeting SDB goals under Government contracts. JS is considered slightly stronger than AECOM under Subfactor 4 because of its proposal to slightly exceed the 10% RFP goal, while AECOM proposes to meet the 10% goal. Neither firm has a significant strength under this Subfactor.

Under **Factor 2 (Cost/Price)**, AECOM's evaluated price of \$1,040.1M for the total 10-year term of the contract is \$25.3M, or 2.4%, lower than JS's evaluated price of \$1,065.4M. (Evaluated price for both firms includes a 10% upward adjustment to probable cost because an SDB offeror (Cube) did not waive the 10% SDB price evaluation adjustment factor.) The probable cost confidence for both firms is moderate, which provides me with reasonable assurance that the probable costs can be relied upon to compare the likely cost of performance for each firm. AECOM has an upward probable cost adjustment of \$10.5M, primarily for unrealistically low "Other Direct Costs" for missing materials costs in SOW area 3.1, Facility Maintenance Services (\$8.8M); and for understated subcontractor costs. JS has an upward probable cost adjustment of \$2.5M for understated subcontractor costs.

Under **Factor 3 (Past Performance)**, JS has an overall rating of "Excellent", compared to AECOM's overall rating of "Good". Both firms demonstrate exemplary performance on previous work (as reported by their customers). However, JS's demonstrated experience is judged to be highly relevant to the ROME SOW, while AECOM's demonstrated experience is judged to be relevant to the ROME SOW.

JS has highly relevant experience operating, designing and maintaining multiple wind tunnel facilities covering a speed range comparable to that in LaRC's suite of facilities, institutional and research facility engineering, and management (including consolidations) of contracts for facility O&M of similar size, content and complexity to ROME. JS has very relevant experience in marketing excess wind tunnel capacity, labor management, development and implementation of OME & IT training programs, data acquisition systems, transitioning to turnkey operations for wind tunnels, performance of numerous research facility improvement projects, and EA design and IT consolidation, and lacks relevant experience only in SAP products and institutional facilities maintenance (the latter of which is mitigated by its research facility maintenance experience).

AECOM has highly relevant experience in institutional engineering and construction and business IT project management, and demonstrates relevant experience in some vital areas, including wind tunnel operations, and no relevant experience with SAP products or

in the following key technical areas: Enterprise Architecture (EA) planning and development; wind tunnel and related system engineering and design; and Reliability Centered Maintenance.

**Comparison Summary:** While AECOM’s evaluated price is 2.4% lower than JS’s, it is my judgment that the additional value provided by JS’s superior proposed approaches in Mission Suitability, combined with JS’s superior level of relevant past performance, is worth the additional 2.4% expenditure. Specifically, JS’s superior significant strengths for its proposed innovations across the entire SOW, its demonstrated knowledge of potential risks under the ROME contract, its strengths related to research facility operations, and its superior management approach and Management Team, combined with its superior level of relevant experience, especially in the areas of wind tunnel operations, maintenance and engineering in multiple facilities covering a speed range comparable to that in LaRC’s suite of facilities, provides a better overall value when compared to the few superior significant strengths in AECOM’s proposal for its Safety and Health approach and its highly substantial amount of proposed investments in ROME and AECOM’s lower price.

## **2. JS compared to CSC:**

Under **Factor 1 (Mission Suitability)** the JS proposal is rated as “Excellent” while the CSC proposal is rated as “Very Good”.

**Subfactor 1, Understanding the Requirements and Approach:** The JS proposal offers substantially greater value to the Government than the CSC proposal offers under Mission Suitability Subfactor 1.

### **Subfactor 1 - Areas of Superior Value in CSC’s Proposal**

None.

### **Subfactor 1 - Areas of Superior Value in JS’s Proposal**

JS’s proposed innovations, technologies and process improvements cut across all areas of the statement of work, are deemed to be a significant strength, and are superior to those proposed by CSC. In comparison, CSC has significant strengths for its innovative maintenance approaches and for its ROME Integrated Business System (RIBS), but JS’s numerous proposed innovations are considered to be of greater value to the Government, because they demonstrate a much better overall understanding of the ROME requirements. JS also has a significant strength for providing a comprehensive list of risk elements, a risk probability and impact rating, and a detailed risk mitigation strategy that demonstrates an understanding of the risks associated with the ROME contract that is superior to CSC’s. In comparison, CSC’s demonstrates an understanding of risks that meets the Government’s expectations in all areas except for IT Security, where a weakness exists because CSC did not adequately discuss proposed approaches, but

instead stated that "we identified no IT security risks for ROME that we have not successfully addressed at many NASA Centers and therefore do not further discuss their mitigation here". JS also provides superior value to the Government through its significant strengths in the following areas, for which there are no corresponding strengths in the CSC proposal: (1) a highly innovative and effective approach to establishing and maintaining effective communication between JS's own work units and between JS and LaRC clients; (2) several proposed approaches for maximizing the availability and productivity of research facilities that demonstrate a sound understanding of the requirements; (3) an exceptional demonstrated understanding of typical problems associated with research facility operations; (4) a highly effective approach to ensure test data quality; (5) several maintenance innovations for facility repair cost avoidance; (6) proposed innovations for utilizing existing asset management systems to achieve accuracy and quality of facility maintenance data; and (7) the innovative use of technology and corporate reach back to improve the quality of engineering designs.

CSC also has the following two significant weaknesses in areas where JS met expectations: (1) CSC did not demonstrate an acceptable level of understanding or technical approach for Data Acquisition Systems (DAS) work in the operations area; and (2) CSC did not provide an adequate level of detail or demonstrate an acceptable level of understanding for DAS and FAS hardware and software maintenance and configuration control. These significant weaknesses are in critical technical areas, and their presence in the CSC proposal supports the conclusion that JS's Subfactor 1 proposal represents a substantially greater value than CSC's Subfactor 1 proposal.

### **Subfactor 1 - Areas with Similar Value**

Both JS and CSC have significant strengths for their proposed Enterprise Architecture approaches, and the two approaches are considered to be essentially equal in value.

**Subfactor 2, Management:** The JS proposal offers slightly greater value to the Government than the CSC proposal offers under Mission Suitability Subfactor 2. Both firms several have significant strengths and no significant weaknesses in Subfactor 2, but JS is rated slightly higher than CSC, primarily because of JS's superior proposed management innovations and its management team, which has experience that is more closely related to the ROME SOW than that of CSC's management team.

### **Subfactor 2 - Areas of Superior Value in CSC's Proposal**

The CSC proposal provides a superior innovative and cost effective approach to cooperate with the Government to capture and document the critical knowledge residing with the existing research facility operations workforce. In comparison, JS has a strength in this area for its proposed "Transition Resource Team", but CSC's proposal provides greater value because its approach includes similar elements as those proposed by JS plus effective human resources strategies for bringing individuals with working knowledge of LaRC's wind tunnels onto the ROME contract. CSC proposes subcontracting goals for overall small businesses (SB), veteran-owned small businesses (VOSB), service-disabled

veteran-owned small businesses (SDVOSB), and historically black colleges and universities (HBCU) that significantly exceed the RFP goals for those four categories. CSC's significant strength in this area provides superior value to JS's approach, which merely met expectations in this area.

### **Subfactor 2 - Areas of Superior Value in JS's Proposal**

Both firms' proposed Management Teams merit a significant strength for their strong relevant experience managing projects of similar size, content and complexity as ROME. However, the JS Management Team's greater level of experience with wind tunnel operations, maintenance and engineering in multiple facilities covering a speed range comparable to that in LaRC's suite of facilities makes the JS Management Team a slightly better value than CSC's. JS also provides superior value to the Government through the following significant strengths: (1) an aggressive, credible and detailed approach to cost reductions and cost control that includes new technologies, innovations, and process improvements, with the majority of the productivity gains to be achieved in the first five years of the contract (CSC has a strength in the area of cost control); (2) a comprehensive management approach supported by an organizational structure established and aligned on the basis of 15 well-defined core processes with assigned JS owners (CSC has a weakness for its organization approach); and (3) a comprehensive discussion of transition-related risks and mitigation approaches that will significantly minimize changeover difficulties and maximize continuity of services (CSC has a strength for its transition approach).

### **Subfactor 2 - Areas with Similar Value**

The CSC proposal has a significant strength for its proposal to invest a significant amount of its own money in contract phase-in, IT development, calibration lab move and upgrade, wind tunnel marketing and a "Technology Partnership Council". The JS proposal has a significant strength for its approach to invest a significant amount of its own money in human capital development, equipment and research facility marketing. These two significant strengths are considered to be essentially equal in value.

**Subfactor 3, Safety:** Under Mission Suitability Subfactor 3, the CSC and JS proposals are equally rated and both have a significant strength for their Safety and Health Plans.

**Subfactor 4, SDB Participation:** The CSC proposal offers substantially greater value to the Government than the JS proposal offers under Mission Suitability Subfactor 4. Both CSC and JS proposed credible approaches for SDB participation with enforceable commitments to subcontractors, and both firms demonstrate successful past performance in meeting SDB goals under Government contracts. However, CSC is considered superior to JS under Subfactor 4 because of its proposal to very significantly exceed the SDB subcontracting goal of 10%, while JS proposes to slightly exceed the goal. CSC has a significant strength under this Subfactor for its high level of SDB participation, while JS has a strength.

Under **Factor 2 (Cost/Price)**, CSC's evaluated price of \$1,069.1M for the total 10-year term of the contract is \$3.7M, or 0.3%, higher than JS's evaluated price of \$1,065.4M. (Evaluated price for both firms includes a 10% upward adjustment to probable cost because an SDB offeror (Cube) did not waive the 10% SDB price evaluation adjustment factor.) The probable cost confidence is moderate for JS and low for CSC. This provides me with a reasonable assurance that JS's probable cost can be relied upon to predict its likely cost of performance, and a lower confidence that CSC's probable cost can be relied upon to predict its likely cost of performance. CSC has an upward probable cost adjustment of \$43.9M primarily for the following two areas: unrealistically low "Other Direct Costs" (Material/Equipment/Supplies and Other ODC) in the amount of \$27.6M, primarily because of missing materials costs in SOW area 3.1, Facility Maintenance Services; and adjustments to subcontractor costs from individual subcontractor analysis (\$12.9M). JS also has an upward probable cost adjustment of \$2.5M for understated subcontractor costs.

Under **Factor 3 (Past Performance)**, JS has an overall rating of "Excellent" compared to CSC's overall rating of "Very Good". JS demonstrates exemplary performance on previous work (as reported by its customers), while CSC demonstrates very effective performance on previous work (as reported by its customers). Additionally, JS's demonstrated experience is judged to be highly relevant to the ROME SOW, while CSC's demonstrated experience is judged to be very relevant to the ROME SOW.

JS has highly relevant experience operating, designing and maintaining multiple wind tunnel facilities covering a speed range comparable to that in LaRC's suite of facilities, institutional and research facility engineering, and management (including consolidations) of contracts for facility O&M of similar size, content & complexity to ROME. JS has very relevant experience in marketing excess wind tunnel capacity, labor management, development and implementation of OME & IT training programs, data acquisition systems, transitioning to turnkey operations for wind tunnels, performance of numerous research facility improvement projects, and EA design and IT consolidation, and lacked relevant experience only in SAP products and institutional facilities maintenance (the latter of which is mitigated by its research facility maintenance experience).

CSC has highly relevant experience in several SOW areas, most notably institutional facilities maintenance, central utilities operations, and IT, has very relevant experience in several areas, including the critical area of wind tunnel testing and operations, demonstrates relevant experience in management areas such as apprenticeship & cross training programs, collection and utilization of performance metrics, and implementation of innovative cost savings, and has no relevant experience in several other areas, most notably in maintenance and tactical engineering support for wind tunnels; instrument metrology and test equipment calibration services; and maintenance and engineering support for Data Acquisition Systems (DAS) and Facility Automation Systems (FAS).

**Comparison Summary:** Compared to CSC, JS has an overall superior technical proposal, stronger past performance both in terms of quality of performance and relevance to ROME, and has an evaluated price that is 0.3% lower than CSC's. In my judgment, the JS proposal is a better overall value than the CSC proposal. Specifically, JS's superior significant strengths for its proposed innovations across the entire SOW, its demonstrated knowledge of potential risks under the ROME contract, its strengths related to research facility operations, and its superior organizational approach, its superior levels of past performance and relevant experience, especially in the areas of wind tunnel operations, maintenance and engineering, DAS, FAS and metrology, combined with its lower evaluated price and higher cost confidence, provides a better overall value when compared to CSC's superior significant strengths in knowledge capture, small business subcontracting, and SDB participation.

### **3. JS compared to Cube:**

Under **Factor 1 (Mission Suitability)** the JS proposal is rated as "Excellent" while the Cube proposal is rated as "Fair".

**Subfactor 1, Understanding the Requirements and Approach:** The JS proposal offers substantially greater value to the Government than the Cube proposal offers under Mission Suitability Subfactor 1. JS's proposal, which includes numerous significant strengths and no significant weaknesses, is far superior to Cube's, which has only one significant strength and numerous significant weaknesses.

#### **Subfactor 1 - Areas of Superior Value in Cube's Proposal**

Cube's only significant strength is for its proposed approach for metrology management, which is considered to be of superior value compared to JS's approach. JS met the Government's expectations in this area.

#### **Subfactor 1 - Areas of Superior Value in JS's Proposal**

JS provides superior value to the Government through its significant strengths in the following areas, for which there are no corresponding strengths in the Cube proposal: (1) a highly innovative and effective approach to establishing and maintaining effective communication between JS's own work units and between JS and LaRC clients; (2) several proposed approaches for maximizing the availability and productivity of research facilities that demonstrate a sound understanding of the requirements; (3) an exceptional demonstrated understanding of typical problems associated with research facility operations; (4) a highly effective approach to ensure test data quality; (5) several maintenance innovations for facility repair cost avoidance; (6) proposed innovations for utilizing existing asset management systems to achieve accuracy and quality of facility maintenance data; (7) the innovative use of technology and corporate reach back to improve the quality of engineering designs; (8) an effective strategy for IT consolidation/EA implementation; (9) proposed innovations, technologies and process

improvements that cut across all areas of the statement of work; and (10) JS provides a comprehensive list of risk elements, a risk probability and impact rating, and a detailed risk mitigation strategy that demonstrates an understanding of the risks associated with the ROME contract that is superior to Cube's.

The Cube proposal also has the following significant weaknesses in areas where JS either met or exceeded expectations: (1) The Work Management Systems (WMS) architecture as depicted is vague and does not provide adequate details or technical approach to determine its ability to serve as the Offeror's proposed "key management tool" for organizing, assigning, tracking, performing and controlling each technical area in the SOW; (2) Cube's proposed staffing is significantly lower than the Government's estimate for the entire contract and this discrepancy is not supported by the Offeror's technical proposal (i.e., operational efficiencies that would generate such labor savings are not proposed), indicating a significant lack of understanding of the requirements (the Government estimate was developed using historical data, which was provided to the offerors in the RFP); (3) Cube's discussion of typical problems and relevant risk areas in the performance of the ROME contract is generic and does not demonstrate an adequate level of understanding of the breadth, complexity and inherent risks of research facility operations, maintenance, engineering, and IT requirements for this project; (4) The proposal does not provide an approach for providing timely and effective tactical engineering services; (5) Cube did not clearly articulate its role in the design, construction and activation of facility projects; and (6) Cube's proposed approach to IT Security is technically flawed and thereby appreciably increases the risk of unsuccessful contract performance.

#### **Subfactor 1 - Areas with Similar Value**

None.

**Subfactor 2, Management:** The JS proposal offers substantially greater value to the Government than the Cube proposal offers under Mission Suitability Subfactor 2. JS's proposal, which includes several significant strengths and no significant weaknesses, is far superior to Cube's, which has no significant strengths and one significant weakness.

#### **Subfactor 2 - Areas of Superior Value in Cube's Proposal**

None.

#### **Subfactor 2 - Areas of Superior Value in JS's Proposal**

JS has a significant strength for its superior proposed Management Team, which has strong relevant experience managing projects of the size, content and complexity of ROME, particularly in the area of wind tunnel testing in multiple facilities covering a speed range comparable to that in LaRC's suite of facilities. In comparison, Cube has a strength and a weakness for its different aspects of its Management Team, and its team does not match the overall experience level of the JS team. JS also provides superior



value to the Government through its significant strengths in the following areas, for which there are no corresponding strengths in the Cube proposal: (1) its approach to invest a significant amount of its own money in human capital development, equipment and research facility marketing; (2) a comprehensive management approach supported by an organizational structure established and aligned on the basis of 15 well-defined core processes with assigned JS owners; (3) an aggressive, credible and detailed approach to cost reductions and cost control that includes new technologies, innovations, and process improvements, with the majority of the productivity gains to be achieved in the first five years of the contract; and (4) a comprehensive discussion of transition-related risks and mitigation approaches that will significantly minimize changeover difficulties and maximize continuity of services. Cube has a significant weakness for its phase-in plan, which is vague and lacks adequate detail. JS has a strength for its phase-in plan.

### **Subfactor 2 - Areas with Similar Value**

None.

**Subfactor 3, Safety:** The JS proposal offers substantially greater value to the Government than the Cube proposal offers under Mission Suitability Subfactor 3. JS has a superior technical approach that includes a thorough Safety and Health Plan (for which JS has a significant strength), and has no weaknesses. Cube has no significant strengths under this Subfactor, and a significant weakness for its Draft Safety Plan, which because of numerous major omissions, could not be implemented without major rework.

**Subfactor 4, SDB Participation:** The JS proposal offers substantially greater value to the Government than the Cube proposal offers under Mission Suitability Subfactor 4. JS proposed a credible approach for SDB participation with enforceable commitments to subcontractors, and demonstrates successful past performance in meeting SDB goals under Government contracts. JS has a strength under Subfactor 4 because of its proposal to slightly exceed the 10% SDB goal. JS did not receive a significant strength or weakness under this Subfactor. Cube self-certified as a small disadvantaged business, and their SDB status was confirmed by the SBA. While I recognize that there is value to contracting with small disadvantaged businesses, the evaluation factors mandated that by electing not to waive the 10% SDB price evaluation adjustment, Cube received 0 points out of the 100 available for Subfactor 4. This is in accordance with the RFP and NFS 1815.304(c)(4)(B).

Under **Factor 2 (Cost/Price)**, Cube's evaluated price of \$1,019.1M for the total 10-year term of the contract is \$46.3M, or 4.3%, lower than JS's evaluated price of \$1,065.4M. (Evaluated price for JS includes a 10% upward adjustment to probable cost because Cube, an SDB offeror, did not waive the 10% SDB price evaluation adjustment factor. Evaluated price for Cube includes probable cost adjustments but not the 10% upward SDB price evaluation adjustment). The probable cost confidence is moderate for JS and low for Cube. This provides me with a reasonable assurance that JS's probable cost can be relied upon to predict its likely cost of performance, and a lower confidence that Cube's probable cost can be relied upon to predict its likely cost of performance. Cube

has a net upward probable cost adjustment of \$12.3M, primarily for unrealistically low ODCs for missing materials costs in SOW area 3.1, Facility Maintenance Services (\$20M), which are partially offset by downward adjustments for overstated Hampton Business Tax and subcontractor costs. JS has an upward probable cost adjustment of \$2.5M for understated subcontractor costs.

Under **Factor 3 (Past Performance)**, JS has an overall rating of “Excellent”, compared to Cube’s overall rating of “Good”. JS demonstrates exemplary performance on previous work (as reported by its customers), while Cube demonstrates very effective performance on previous work (as reported by its customers). Additionally, JS’s demonstrated experience is judged to be highly relevant to the ROME SOW, while Cube’s demonstrated experience is judged to be very relevant to the ROME SOW.

JS has highly relevant experience operating, designing and maintaining multiple wind tunnel facilities covering a speed range comparable to that in LaRC’s suite of facilities, institutional and research facility engineering, and management (including consolidations) of contracts for facility O&M of similar size, content, and complexity to ROME. JS has very relevant experience in marketing excess wind tunnel capacity, labor management, development and implementation of OME & IT training programs, data acquisition systems, transitioning to turnkey operations for wind tunnels, performance of numerous research facility improvement projects, and EA design and IT consolidation, and lacked relevant experience only in SAP products and institutional facilities maintenance (the latter of which is mitigated by its research facility maintenance experience).

Cube has highly relevant experience in wind tunnel operation and test technique development, and very relevant experience in the following areas: maintaining large institutional complexes; IT systems support; and managing workload fluctuations, and the proposed Program Manager has very relevant experience for work similar in size and complexity to ROME. Cube did not demonstrate relevant experience in several SOW areas, including business IT consolidation and support, developing and implementing a comprehensive technical personnel training program, reliability-centered maintenance (RCM), and research facility engineering experience that is similar in size, content, and complexity to ROME.

**Comparison Summary:** While Cube’s evaluated price is 4.3% lower than JS’s, it is my judgment that the additional value provided by JS’s superior proposed approaches in Mission Suitability, combined with JS’s superior level of relevant past performance, is worth the additional 4.3% expenditure. Specifically, JS’s many superior significant strengths for its proposed innovations across the entire SOW, its demonstrated knowledge of potential risks under the ROME contract, its strengths related to research facility operations, its proposed investments in ROME, and its superior management approach and Management Team, plus its superior level of relevant experience, especially in the areas of research facility engineering, reliability-centered maintenance and business IT consolidation and support, combined with Cube’s significant weaknesses in its technical

proposal, results in the JS proposal providing a better overall value when compared to Cube's proposal.

#### **4. JS compared to KBR:**

Under **Factor 1 (Mission Suitability)** the JS proposal is rated as "Excellent" while the KBR proposal is rated as "Good".

**Subfactor 1, Understanding the Requirements and Approach:** The JS proposal offers substantially greater value to the Government than the KBR proposal offers under Mission Suitability Subfactor 1.

#### **Subfactor 1 - Areas of Superior Value in KBR's Proposal**

The KBR proposal has a significant strength for its effective IT security approach, while the JS proposal has a weakness for a vague IT security approach.

#### **Subfactor 1 - Areas of Superior Value in JS's Proposal**

JS's proposed innovations, technologies and process improvements cut across all areas of the statement of work, are deemed to be a significant strength and are superior to those proposed by KBR. In comparison, KBR has strengths for specific innovations in maintenance and engineering, but JS's proposed innovations are considered to be of greater value to the Government, because they demonstrate a much better overall understanding of the ROME requirements. JS has a significant strength for a comprehensive list of risk elements, a risk probability and impact rating, and a detailed risk mitigation strategy that demonstrates an understanding of the risks associated with the ROME contract that is superior to KBR's. In comparison, KBR has a significant strength for its 5-step approach to risk management, but JS's identification of risks specific to ROME is considered to be of greater value to the Government, because it is a better indicator that JS understands the requirements and thus will be better able to successfully perform the work under the ROME contract. JS has a significant strength for several proposed approaches for maximizing the availability and productivity of research facilities that demonstrate a sound understanding of the requirements. In comparison, KBR has a strength in this area, but JS's proposed introduction of several technological innovations to reduce test cycle time is a more comprehensive approach for increasing facility productivity than KBR's facility scheduling approach, and is thus considered to be of greater value. JS has a significant strength for several maintenance innovations for facility repair cost avoidance. In comparison, KBR has two strengths in this area, but JS's innovations are engineering-based and cover the maintenance area more thoroughly, and are thus considered to be of greater value. JS has a significant strength for its innovative use of technology and corporate reach back to improve the quality of engineering designs. In comparison, KBR has a strength for innovative technology use that is similar to some of the innovations proposed by JS, but JS's approach is considered to be of greater value because it also proposed the use of several

commercial and company proprietary computer based analytical programs. Corresponding programs were not offered by KBR. JS has a significant strength for an effective strategy for IT consolidation/EA implementation. In comparison, KBR has a strength in this area, but JS provides greater value because the Government will realize immediate benefits and cost reductions for IT services by the elimination of functional and data redundancy through the JS approach.

JS also provides superior value to the Government through its significant strengths in the following areas, for which there are no corresponding strengths in the KBR proposal: (1) a highly innovative and effective approach to establishing and maintaining effective communication between JS's own work units and between JS and LaRC clients; (2) an exceptional demonstrated understanding of typical problems associated with research facility operations; (3) a highly effective approach to ensure test data quality (KBR has a significant weakness in the area of test data quality); and (4) proposed innovations for utilizing existing asset management systems to achieve accuracy and quality of facility maintenance data.

**Subfactor 2, Management:** The JS proposal offers substantially greater value to the Government than the KBR proposal offers under Mission Suitability Subfactor 2. JS's proposal, which includes several significant strengths and no significant weaknesses, is far superior to KBR's, which has no significant strengths or significant weakness.

#### **Subfactor 2 - Areas of Superior Value in KBR's Proposal**

None.

#### **Subfactor 2 - Areas of Superior Value in JS's Proposal**

JS has a superior proposed Management Team, which merits a significant strength for its strong relevant experience managing projects of the size, content and complexity of ROME, particularly in the area of wind tunnel testing in multiple facilities covering a speed range comparable to that in LaRC's suite of facilities. In comparison, KBR has a strength and a weakness for its Management Team, and its team does not match the overall experience level of the JS team. JS also provides superior value to the Government through its significant strengths in the following areas, for which there are no corresponding strengths in the KBR proposal: (1) its approach to invest a significant amount of its own money in human capital development, equipment and research facility marketing; (2) a comprehensive management approach supported by an organizational structure established and aligned on the basis of 15 well-defined core processes with assigned JS owners (KBR has weaknesses for its inconsistent and ambiguous organization chart and for its organizational approach in the calibration area); (3) an aggressive, credible and detailed approach to cost reductions and cost control that includes new technologies, innovations, and process improvements, with the majority of the productivity gains to be achieved in the first five years of the contract; and (4) a comprehensive discussion of transition-related risks and mitigation approaches that will

significantly minimize changeover difficulties and maximize continuity of services (KBR has a weakness for its proposed transition approach).

### **Subfactor 2 - Areas with Similar Value**

None.

**Subfactor 3, Safety:** The JS proposal offers slightly greater value to the Government than the KBR proposal offers under Mission Suitability Subfactor 3. JS has a somewhat stronger technical approach that includes a thorough Safety and Health Plan, for which JS has a significant strength and no weaknesses. In comparison, KBR also has a significant strength for its Safety and Health Plan (which is on par with JS's plan), but KBR also has a weakness for failing to recognize the existence of a LaRC lockout/tagout (LOTO) procedure that supercedes any KBR LOTO policy. Because of this KBR weakness, JS's approach to safety and health is considered to be of slightly greater value than KBR's approach.

**Subfactor 4, SDB Participation:** The KBR proposal offers greater value to the Government than the JS proposal offers under Mission Suitability Subfactor 4. Both KBR and JS proposed credible approaches for SDB participation with enforceable commitments to subcontractors, and both firms demonstrate successful past performance in meeting SDB goals under Government contracts. However, KBR is considered superior to JS under Subfactor 4 because of its proposal to significantly exceed the SDB subcontracting goal of 10%, while JS proposes to slightly exceed goal. KBR has a significant strength under this Subfactor for its higher level of SDB participation, while JS has a strength.

Under **Factor 2 (Cost/Price)**, KBR's evaluated price of \$1,027.4M for the total 10-year term of the contract is \$38.0M, or 3.6%, lower than JS's evaluated price of \$1,065.4M. (Evaluated price for both firms includes a 10% upward adjustment to probable cost because an SDB offeror (Cube) did not waive the 10% SDB price evaluation adjustment factor.) The probable cost confidence for both firms is moderate, which provides me with reasonable assurance that the probable costs can be relied upon to compare the likely cost of performance for each firm. KBR has a net upward probable cost adjustment of \$14.9M, primarily for unrealistically low "Other Direct Costs" for missing materials costs in SOW area 3.1, Facility Maintenance Services (\$23.1M), which are partially offset by downward adjustments for overstated labor escalation and subcontractor costs. JS has an upward probable cost adjustment of \$2.5M for understated subcontractor costs.

Under **Factor 3 (Past Performance)**, JS has an overall rating of "Excellent", compared to KBR's overall rating of "Very Good". JS demonstrates exemplary performance on previous work (as reported by its customers), while KBR demonstrates very effective performance on previous work (as reported by its customers). Additionally, JS's demonstrated experience is judged to be highly relevant to the ROME SOW, while KBR's demonstrated experience is judged to be very relevant to the ROME SOW.

JS has highly relevant experience operating, designing and maintaining multiple wind tunnel facilities covering a speed range comparable to that in LaRC's suite of facilities, institutional and research facility engineering, and management (including consolidations) of contracts for facility O&M of similar size, content and complexity to ROME. JS has very relevant experience in marketing excess wind tunnel capacity, labor management, development and implementation of OME & IT training programs, data acquisition systems, transitioning to turnkey operations for wind tunnels, performance of numerous research facility improvement projects, and EA design and IT consolidation, and lacked relevant experience only in SAP products and institutional facilities maintenance (the latter of which is mitigated by its research facility maintenance experience).

In comparison, KBR has highly relevant experience managing large contract efforts, and very relevant experience in base operations, including training and development of technical, safety, and quality personnel, research facility maintenance, and RCM program development and management. KBR has relevant experience in the transition of wind tunnel operations from Government to Contractor personnel. KBR did not demonstrate relevant experience in the following areas: full service wind tunnel operations; wind tunnel facility engineering; DAS and FAS maintenance and development; EA design; and consolidation of disparate customer service desks.

**Comparison Summary:** While KBR's evaluated price is 3.6% lower than JS's, it is my judgment that the additional value provided by JS's superior proposed approaches in Mission Suitability, combined with JS's superior past performance, including its higher level of relevant experience, is worth the additional 3.6% expenditure. Specifically, JS's superior significant strengths for its proposed innovations across the entire SOW, its demonstrated knowledge of potential risks under the ROME contract, its strengths related to research facility operations, its IT consolidation approach, its superior transition approach for major wind tunnels, its cost reduction approaches, its proposed investments in ROME, and its superior management approach and Management Team, combined with its superior level of relevant experience, especially in the areas of full service wind tunnel operations in multiple facilities covering a speed range comparable to that in LaRC's suite of facilities, wind tunnel facility engineering, and DAS and FAS maintenance and development, provides a better overall value when compared to KBR's superior strengths in IT security and SDB participation and KBR's lower price.

## **5. JS compared to Raytheon:**

Under **Factor 1 (Mission Suitability)** the JS proposal is rated as "Excellent" while the Raytheon proposal is rated as "Very Good".

**Subfactor 1, Understanding the Requirements and Approach:** The JS proposal offers greater value to the Government than the Raytheon proposal offers under Mission Suitability Subfactor 1.

### **Subfactor 1 - Areas of Superior Value in Raytheon's Proposal**

Raytheon has a significant strength for its comprehensive and effective IT security approach, while JS has a weakness for a vague IT security approach. Raytheon also has a stronger proposed approach for its Enterprise Information Portal (EIP), because Raytheon proposes to invest a significant amount of its own money in the EIP and proposes to finish and implement the EIP well ahead of the required schedule in the contract. Raytheon has a significant strength for its EIP approach, while JS has a strength for its EIP approach.

### **Subfactor 1 - Areas of Superior Value in JS's Proposal**

JS's proposed innovations, technologies and process improvements cut across all areas of the statement of work, are deemed to be a significant strength and are superior to those proposed by Raytheon. In comparison, Raytheon did receive a strength for several specific innovations, but JS's numerous proposed innovations are considered to be of greater value to the Government because they demonstrate a much better understanding of the ROME requirements. JS demonstrated an exceptional understanding of typical problems associated with research facility operations. In comparison, Raytheon has a strength for its demonstrated expertise with the testing process, but the JS strength is of greater value because it demonstrates a better understanding of all areas of research facility operations. JS has a significant strength for several proposed approaches for maximizing the availability and productivity of research facilities that demonstrate a sound understanding of the requirements. In comparison, Raytheon has a strength in this area, but JS's proposed introduction of several technological innovations to reduce test cycle time is a more comprehensive approach for increasing facility productivity than Raytheon's facility operational readiness approach, and is thus considered to be of greater value. JS has a significant strength for a highly effective approach to ensure test data quality. In comparison, Raytheon has a strength in this area, but the JS proposal is of greater value because it demonstrates a better overall understanding of the ROME data quality assurance requirements.

JS also provides superior value to the Government through its significant strengths in the following areas, for which there are no corresponding strengths in the Raytheon proposal: (1) a highly innovative and effective approach to establishing and maintaining effective communication between JS's own work units and between JS and LaRC clients; (2) several maintenance innovations for facility repair cost avoidance; and (3) the innovative use of technology and corporate reach back to improve the quality of engineering designs.

Raytheon also has two significant weaknesses in areas where JS met the Government's expectations: (1) Raytheon's proposed approach for managing the metrology program, particularly with respect to ISO 17025 compliance, is vague; and (2) Raytheon's approach for the design, development, implementation, and lifecycle support of FAS and DAS does not adequately address DAS/FAS software maintenance nor does it adequately address configuration management of DAS/FAS hardware and software; additionally,

Raytheon's statement that "Many wind tunnel FAS and DAS are left unaltered over their life cycle" is inaccurate, and thus indicates a lack of understanding with regard to the amount of lifecycle support required for DAS/FAS in many of LaRC's research facilities. These significant weaknesses are in critical technical areas, and their presence in the Raytheon proposal supports the conclusion that JS's Subfactor 1 proposal represents a greater value than Raytheon's Subfactor 1 proposal.

### **Subfactor 1 - Areas with Similar Value**

Both firms have significant strengths for their proposed innovations for utilizing existing asset management systems to achieve accuracy and quality of facility maintenance data, and the two approaches are considered to be essentially equal in value. Both firms have significant strengths for their risk identification and mitigation, and the two approaches are considered to be essentially equal in value. Both firms also have significant strengths for their Enterprise Architecture approaches, and again the two approaches are considered to be essentially equal in value.

**Subfactor 2, Management:** The JS proposal offers greater value to the Government than the Raytheon proposal offers under Mission Suitability Subfactor 2.

### **Subfactor 2 - Areas of Superior Value in Raytheon's Proposal**

Raytheon has a significant strength for its approach to knowledge capture, which is considered superior to JS's approach. In comparison, JS has a strength in this area for its proposed "Transition Resource Team", but Raytheon's proposal provides greater value because of its blend of personnel and technology-based approaches, which demonstrates a better overall understanding of the knowledge capture process. Raytheon also has a significant strength for its phase-in plan, which is also considered to be superior to JS's. In comparison, JS has a strength in this area for its personnel recruitment approach, which is only one of the many areas that Raytheon covered effectively in its phase-in plan.

### **Subfactor 2 - Areas of Superior Value in JS's Proposal**

JS has a significant strength for a comprehensive management approach supported by an organizational structure established and aligned on the basis of 15 well-defined core processes with assigned JS owners, while Raytheon has a significant strength for its understanding and approach to manage the ROME contract based upon process improvements and including its Integrated Product Development System (IPDS) and Raytheon Six Sigma (RSix Sigma). While both of these management approaches merited significant strengths, JS's approach is considered to be of somewhat greater value because of JS's strong proposed organizational structure, which will contribute to more effective management of the ROME contract. JS's proposed Management Team merits a significant strength for its strong relevant experience managing projects of the size, content and complexity of ROME, particularly in the area of full service wind tunnel testing in multiple facilities covering a speed range comparable to that in LaRC's suite of



facilities, while Raytheon's Management Team represents a significant weakness for a lack of experience managing projects of the size, content and complexity of ROME and a lack of wind tunnel operations experience and research facility engineering experience. JS has a significant strength for an aggressive, credible and detailed approach to cost reductions and cost control that includes new technologies, innovations, and process improvements, with the majority of the productivity gains to be achieved in the first five years of the contract. In comparison, Raytheon has a strength in this area for its proposed cost tracking systems, but JS's proposal is considered to be of superior value in this area because of its specific and credible proposed approaches for controlling and reducing costs. JS also provides superior value to the Government through its significant strength for a comprehensive discussion of transition-related risks and mitigation approaches that will significantly minimize changeover difficulties and maximize continuity of services. In comparison, Raytheon has a strength in this area, but JS's proposal provides superior value because it covers both the human and the technological elements of transition in far greater depth and detail, and in doing so demonstrates a much better understanding of the transition process and the risks associated with transitioning wind tunnel operations from the Government to the contractor.

Raytheon has an additional significant weakness related to its failure to demonstrate that it can meet the on-site service and emergency repair timeliness requirements for the instrumentation calibration and repair functions due to the proposed location of Raytheon's metrology facility; in addition, it is not clear if the facility proposed for use by Raytheon will be totally dedicated to the ROME contract due to the calibration services currently provided by the instrumentation subcontractor to non-ROME customers. This significant weakness, as well as the significant weakness noted above for Raytheon's Management Team, is in a critical area and the presence of these significant weaknesses in Raytheon's proposal supports the conclusion that JS's Subfactor 2 proposal represents a greater value than Raytheon's Subfactor 2 proposal.

### **Subfactor 2 - Areas with Similar Value**

Raytheon has a significant strength for its proposal to invest a significant amount of its own money over the first three years of the contract in VPP Star certification, ISO-9001, DAS & FAS system upgrades, Raytheon 6-Sigma experts, and the development of an Enterprise Information Portal (EIP) for ROME. In comparison, JS has a significant strength for its approach to invest a significant amount of its own money in human capital development, equipment and research facility marketing. These two significant strengths are considered to be essentially equal in value.

**Subfactor 3, Safety:** The Raytheon proposal offers greater value to the Government than the JS proposal offers under Mission Suitability Subfactor 3. Raytheon has a superior technical approach that includes a strong Safety and Health Plan with a significant investment by Raytheon of its own money for VPP Star certification, for which Raytheon has a significant strength. In comparison, JS also has a significant strength for its thorough Safety and Health Plan, but Raytheon's overall approach in

safety and health is considered to be of greater value than JS's approach because of Raytheon's proposed investments.

**Subfactor 4, SDB Participation:** The Raytheon proposal offers substantially greater value to the Government than the JS proposal offers under Mission Suitability Subfactor 4. Both Raytheon and JS proposed credible approaches for SDB participation with enforceable commitments to subcontractors, and both firms demonstrate successful past performance in meeting SDB goals under Government contracts. However, Raytheon is considered superior to JS under Subfactor 4 because of its proposal to significantly exceed the SDB subcontracting goal of 10%, while JS proposes to slightly exceed goal. Raytheon has a significant strength under this Subfactor for its high level of SDB participation, while JS has a strength.

Under **Factor 2 (Cost/Price)**, Raytheon's evaluated price of \$1,059.9M for the total 10-year term of the contract is \$5.5M, or 0.5%, lower than JS's evaluated price of \$1,065.4M. (Evaluated price for both firms includes a 10% upward adjustment to probable cost because an SDB offeror (Cube) did not waive the 10% SDB price evaluation adjustment factor.) The probable cost confidence is moderate for JS and low for Raytheon. This provides me with a reasonable assurance that JS's probable cost can be relied upon to predict its likely cost of performance, and a lower confidence that Raytheon's probable cost can be relied upon to predict its likely cost of performance. Raytheon has a downward probable cost adjustment of \$0.4M, for slightly overstated subcontractor costs. JS has an upward probable cost adjustment of \$2.5M for understated subcontractor costs.

Under **Factor 3 (Past Performance)**, JS has an overall rating of "Excellent", compared to Raytheon's overall rating of "Very Good". Both firms demonstrate exemplary performance on previous work (as reported by their customers). However, JS's demonstrated experience is judged to be highly relevant to the ROME SOW, while Raytheon's demonstrated experience is judged to be very relevant to the ROME SOW.

JS has highly relevant experience operating, designing and maintaining multiple wind tunnel facilities covering a speed range comparable to that in LaRC's suite of facilities, institutional and research facility engineering, and management (including consolidations) of contracts for facility O&M of similar size, content & complexity to ROME. JS has very relevant experience in marketing excess wind tunnel capacity, labor management, development and implementation of OME & IT training programs, data acquisition systems, transitioning to turnkey operations for wind tunnels, performance of numerous research facility improvement projects, and EA design and IT consolidation, and lacked relevant experience only in SAP products and institutional facilities maintenance (the latter of which is mitigated by its research facility maintenance experience).

Raytheon has highly relevant experience in numerous areas, most notably transition of workforce (civil servant to contractor) and facilities; contract consolidations; performing central utilities operations; RCM-based maintenance programs; and business IT

consolidations and support. Raytheon also has very relevant experience in several areas, including wind tunnel operations support, and has relevant experience in providing FAS, DAS, and research systems support. Raytheon did not demonstrate relevant experience in research engineering projects including design, construction, and activation; metrology and calibration support; and the development and implementation of comprehensive training programs.

**Comparison Summary:** While Raytheon’s evaluated price is 0.5% lower than JS’s, it is my judgment that the additional value provided by JS’s superior proposed approaches in Mission Suitability, combined with JS’s superior level of relevant past performance, is worth the additional 0.5% expenditure. Specifically, JS’s superior proposed innovations across the entire SOW, its superior significant strengths related to research facility operations and test data quality, cost reduction and control, and identification of transition risks, its superior management approach and Management Team, combined with its superior level of relevant experience, especially in the areas of wind tunnel operations in multiple facilities covering a speed range comparable to that in LaRC’s suite of facilities, research facility engineering, and data acquisition systems, and its higher probable cost confidence level, provide a better overall value when compared to Raytheon’s superior significant strengths in IT development, IT security knowledge capture, safety and SDB participation, Raytheon’s stronger relevance of past performance in information technology and civil service to contractor transitions, and Raytheon’s slightly lower (0.5%) evaluated price.

## **6. JS compared to VAS:**

Under **Factor 1 (Mission Suitability)** the JS proposal is rated as “Excellent” while the VAS proposal is rated as “Very Good”.

**Subfactor 1, Understanding the Requirements and Approach:** The JS proposal offers substantially greater value to the Government than the VAS proposal offers under Mission Suitability Subfactor 1.

### **Subfactor 1 - Areas of Superior Value in VAS’s Proposal**

Both firms have significant strengths for their approaches to assure test data quality, but VAS’s proposed approach is considered to be of slightly more value based on the quality of its proposed data quality assurance innovations, as well as the level of specificity to which they were explained. VAS also provides superior value to the Government through its significant strength for a proposed comprehensive RCM strategy that will significantly improve the maintenance program by reducing the impact of maintenance on facility operations. In comparison, JS has a significant strength in this area, but VAS’s approach is considered of superior value because of its plan to provide an “RCM Chief Engineer”.

### **Subfactor 1 - Areas of Superior Value in JS's Proposal**

JS's proposed innovations, technologies and process improvements cut across all areas of the statement of work, are deemed to be a significant strength and are superior to those proposed by VAS. In comparison, VAS did receive a significant strength for its innovations, but JS's numerous proposed innovations are considered to be of greater value to the Government because they demonstrate a much better understanding of the ROME requirements. JS has a significant strength for a comprehensive list of risk elements, a risk probability and impact rating, and a detailed risk mitigation strategy that demonstrates an understanding of the risks associated with the ROME contract. In comparison, VAS has a strength for its risk identification and mitigation of specific risks, but JS provides greater value because its proposal in this area includes effective approaches for managing risks that are not present in the VAS proposal. JS has a significant strength for several proposed approaches for maximizing the availability and productivity of research facilities that demonstrate a sound understanding of the requirements. In comparison, VAS has a strength in this area for its demonstrated understanding of test techniques and test technology, but JS's approach is considered to be a more comprehensive approach for increasing facility productivity than VAS's, and thus of greater value, because of its proposed introduction of several new technological innovations to reduce test cycle time.

JS also provides superior value to the Government through its significant strengths in the following areas, for which there are no corresponding strengths in the VAS proposal: (1) a highly innovative and effective approach to establishing and maintaining effective communication between JS's own work units and between JS and LaRC clients; (2) an exceptional demonstrated understanding of typical problems associated with research facility operations; (3) proposed innovations for utilizing existing asset management systems to achieve accuracy and quality of facility maintenance data; (4) the innovative use of technology and corporate reach back to improve the quality of engineering designs; and (5) an effective strategy for IT consolidation/EA implementation.

VAS also has these significant weaknesses in areas where JS either met or exceeded (though not significantly) the Government's expectations: (1) VAS did not address configuration management for FAS and DAS, nor did it address DAS and FAS software maintenance (JS met expectations in this area); (2) VAS's plan for management of the Metrology program including calibration and repair of research instrumentation, DAS, FAS, and related IAGP and GFE, and its interfaces to pertinent LMS processes are not adequately addressed (JS has a strength for its approach to metrology); and (3) VAS's proposed approach to deliver "within the first 18 months ...an Enterprise Information Portal" does not meet the overall 12-month delivery requirement for the EIP contained in the SOW (ref. section 5.1.3) (JS met the 12-month EIP delivery requirement set forth in the RFP, and both VAS and JS have strengths for their EIP designs). These significant weaknesses are in critical technical areas, and their presence in the VAS proposal supports the conclusion that JS's Subfactor 1 proposal represents a substantially greater value than VAS's Subfactor 1 proposal.

### **Subfactor 1 - Areas with Similar Value**

Both JS and VAS also have significant strengths for maintenance innovations for repair cost avoidance, and the two approaches are considered to be essentially equal in value.

**Subfactor 2, Management:** The JS proposal offers slightly greater value to the Government than the VAS proposal offers under Mission Suitability Subfactor 2. Both firms several have significant strengths and no significant weaknesses in Subfactor 2, but JS is rated slightly higher than VAS, primarily because of JS's superior proposed management innovations and its management team, which has experience that is more closely related to the ROME SOW than that of VAS's management team.

### **Subfactor 2 - Areas of Superior Value in VAS's Proposal**

VAS has a significant strength for its approach to knowledge capture, which is considered superior to JS's approach. In comparison, JS has a strength in this area for its proposed "Transition Resource Team", but VAS's proposal provides greater value because of its blend of personnel and technology-based approaches, which demonstrates a better overall understanding of the knowledge capture process. VAS also has a significant strength for its phase-in plan, which is also considered to be superior to JS's. In comparison, JS has a strength in this area for an effective and detailed phase-in approach, but VAS's approach is considered to be of superior value because it includes a detailed schedule of phase-in activities that identifies more than 125 elements of work in 17 major focus areas, a separate phase-in manager and a well-defined phase-in team, which will substantially mitigate phase-in risks.

### **Subfactor 2 - Areas of Superior Value in JS's Proposal**

JS's proposed Management Team merited a significant strength for its strong relevant experience managing projects of the size, content and complexity of ROME, particularly in the area of wind tunnel testing, while VAS's Management Team has a significant strength for NASA related technical and business experience and experience managing contracts similar in size and complexity to ROME, extensive maintenance experience, including successful performance of facility operations and maintenance at MSFC, IT business systems experience, and phase-in experience, but also a weakness for a lack of relevant experience in the research operations and transition areas. JS's Management Team is judged to have slightly superior experience relative to ROME, particularly because of its wind tunnel and research testing background in multiple facilities covering a speed range comparable to that in LaRC's suite of facilities, and its research facility engineering experience. JS has a significant strength for a comprehensive management approach supported by an organizational structure established and aligned on the basis of 15 well-defined core processes with assigned JS owners, which is considered superior to VAS's approach. In comparison, VAS has strengths for its proposed research facility management organization and its Performance Improvement Center organization, but these strengths did not provide nearly the value as the JS significant strength, because the JS approach covered virtually every management area of the contract while VAS's

strengths are limited in scope. JS has a significant strength for a comprehensive discussion of transition-related risks and mitigation approaches that will significantly minimize changeover difficulties and maximize continuity of services. In comparison, VAS has a strength in this area, but JS's proposal provides superior value because it covers both the human and the technological elements of transition in far greater depth and detail, and in doing so demonstrates a much better understanding of the transition process and the risks associated with transitioning wind tunnel operations from the Government to the contractor.

JS also provides superior value to the Government through its significant strength for an aggressive, credible and detailed approach to cost reductions and cost control that includes new technologies, innovations, and process improvements, with the majority of the productivity gains to be achieved in the first five years of the contract. There is no corresponding strength in the VAS proposal.

### **Subfactor 2 - Areas with Similar Value**

JS has a significant strength for its approach to invest a significant amount of its own money in human capital development, equipment and research facility marketing, while VAS has a significant strength for its proposal to eliminate G & A expenses as a part of its joint venture approach, which will result in significant savings over the life of the contract. These two significant strengths are considered to be essentially equal in value.

**Subfactor 3, Safety:** The JS proposal offers substantially greater value to the Government than the VAS proposal offers under Mission Suitability Subfactor 3. JS has a superior technical approach that includes a thorough Safety and Health Plan (for which JS has a significant strength), and has no weaknesses. VAS has no significant strengths or significant weaknesses under this Subfactor. VAS has a strength for its Safety and Health Plan, which exceeded expectations, and a weakness for its lack of demonstrated understanding of the LaRC digging permit process.

**Subfactor 4, SDB Participation:** The VAS proposal offers greater value to the Government than the JS proposal offers under Mission Suitability Subfactor 4. Both VAS and JS proposed credible approaches for SDB participation with enforceable commitments to subcontractors, and both firms demonstrate successful past performance in meeting SDB goals under Government contracts. However, VAS is considered superior to JS under Subfactor 4 because of its proposal to significantly exceed the SDB subcontracting goal of 10%, while JS proposes to slightly exceed the goal. VAS has a significant strength under this Subfactor for its high level of SDB participation, while JS has a strength.

Under **Factor 2 (Cost/Price)**, VAS's evaluated price of \$1,098.0M for the total 10-year term of the contract is \$32.6M, or 3.1%, higher than JS's evaluated price of \$1,065.4M. (Evaluated price for both firms includes a 10% upward adjustment to probable cost because an SDB offeror (Cube) did not waive the 10% SDB price evaluation adjustment factor.) The probable cost confidence for both firms is moderate, which provides me

with reasonable assurance that the probable costs can be relied upon to compare the likely cost of performance for each firm. VAS has a downward probable cost adjustment of \$0.1M for slightly overstated subcontractor costs. JS has an upward probable cost adjustment of \$2.5M for understated subcontractor costs.

Under **Factor 3 (Past Performance)**, both JS and VAS have overall ratings of “Excellent”. Both firms demonstrate exemplary performance on previous work (as reported by their customers), and both demonstrate highly relevant experience in comparison to the ROME statement of work. I consider the past performance of these to offerors to be essentially equal in value.

**Comparison Summary:** Compared to VAS, JS has an overall superior technical proposal, equal past performance both in terms of quality of performance and relevance to ROME, and an evaluated price that is 3.1% lower than VAS’s. In my judgment, the JS proposal is a better overall value than the VAS proposal. Specifically, JS’s superior significant strengths for its proposed innovations across the entire SOW, its demonstrated knowledge of potential risks under the ROME contract, its strengths related to research facility operations, its IT consolidation/EA approach, and its superior organizational, transition and safety and health approaches, combined with its excellent past performance and lower evaluated price, provide a better overall value when compared to VAS’s excellent past performance and its superior significant strengths for its RCM approach, its phase-in and knowledge capture plans, and its higher proposed SDB participation level.

## **7. JS compared to Wyle:**

Under **Factor 1 (Mission Suitability)** the JS proposal is rated as “Excellent” while the Wyle proposal is rated as “Good”.

**Subfactor 1, Understanding the Requirements and Approach:** The JS proposal offers greater value to the Government than the Wyle proposal offers under Mission Suitability Subfactor 1. While both firms have numerous significant strengths under this Subfactor in areas of great importance to the Government, Wyle’s significant weakness and the risk associated with it contributed to my ultimate conclusion that the JS proposal offers a better value under Subfactor 1. JS did not have any significant weaknesses under this Subfactor.

### **Subfactor 1 - Areas of Superior Value in Wyle’s Proposal**

Both firms have significant strengths for their proposed innovations for utilizing existing asset management systems to achieve accuracy and quality of facility maintenance data, but Wyle’s proposed approach is considered to be of somewhat greater value than JS’s because of several additional features offered by Wyle that are of significant value to the Government. Both firms have significant strengths for their Enterprise Architecture approaches, but Wyle’s approach is considered to be of somewhat greater value based upon Wyle’s proposed use of proven ISO 9001 and SEI-CMM Level 3 compliant

development methodologies and its recognition of potential NASA IFMP impacts. Both firms have significant strengths for their proposed approaches to establish and maintain effective communications, but Wyle's approach is considered to be of greater value than JS's proposal in this particular area because Wyle proposes to integrate its Enterprise Information Portal throughout its ROME operations. Wyle has a significant strength for its Enterprise Information Portal (EIP) development strategy and several key features of its EIP. In comparison, JS has a strength for EIP features designed to facilitate acceptance of its EIP, but Wyle's EIP approach provides superior value because it incorporates similar features as those noted in the JS strength plus additional features of value related to EIP/SAP integration, IT security and user feedback.

Wyle also provides superior value to the Government through its significant strengths in the following areas, for which there are no corresponding strengths in the JS proposal: (1) several proposed innovations for research facility operations that are of substantial value to the Government; (2) the proposed use of Maximo to manage all ROME contract assets and thereby streamline workflow processes; and (3) an IT security approach that significantly exceeds NASA guidelines (JS has a weakness for a vague IT security approach).

#### **Subfactor 1 - Areas of Superior Value in JS's Proposal**

Both firms have significant strengths for their proposed innovations, technologies and process improvements, but JS's proposed innovations are numerous and cut across all areas of the statement of work, thereby demonstrating a better understanding of the requirements, are thus deemed to be of greater value to the Government. Both firms have significant strengths for an exceptional demonstrated understanding of typical problems associated with research facility operations, but JS's proposal, because it includes proactive mitigation approaches for operational problems, is of slightly more value than Wyle's. JS has a significant strength for a comprehensive list of risk elements, a risk probability and impact rating, and a detailed risk mitigation strategy that demonstrates an understanding of the risks associated with the ROME contract, while Wyle has a strength for its risk assessment and mitigation for IT work, and a weaknesses for operations, maintenance and engineering risks. JS's superior demonstrated understanding of the requirement in this area is of much greater value to the Government than Wyle's proposed approaches. JS has a significant strength for several maintenance innovations for facility repair cost avoidance, while Wyle has a strength in this area. JS's proposal is considered to be of greater value in this area because of its superior demonstrated knowledge and proposed implementation of RCM concepts. JS has a significant strength for the innovative use of virtual office technology, software and corporate reach back to improve the quality of engineering designs. In comparison, Wyle has a strength in this area for its innovative proposed use of software for engineering designs, but because the Wyle approach includes only a subset of the features offered by JS in this area, the JS proposal is considered to be of superior value.

Wyle has one significant weakness in the following area where JS met the Government's expectations: Wyle did not provide an adequate level of detail for the support of FAS and



DAS including software/hardware configuration management and software maintenance activities, instead referring extensively to its past performance in these areas. This significant weakness is in a critical technical area, and its presence in the Wyle proposal supports the conclusion that JS's Subfactor 1 proposal represents a greater value than Wyle's Subfactor 1 proposal.

### **Subfactor 1 - Areas with Similar Value**

Both JS and Wyle have significant strengths for their approaches to assure test data quality, and those approaches are considered to be of essentially equal value to the Government. Both JS and Wyle have significant strengths for several proposed approaches for maximizing the availability and productivity of research facilities that demonstrate a sound understanding of the requirements, and those approaches are also considered to be of essentially equal value to the Government.

**Subfactor 2, Management:** The JS proposal offers substantially greater value to the Government than the Wyle proposal offers under Mission Suitability Subfactor 2. JS's proposal, which includes several significant strengths and no significant weaknesses, is far superior to Wyle's, which includes no significant strengths and several significant weaknesses.

### **Subfactor 2 - Areas of Superior Value in Wyle's Proposal**

None.

### **Subfactor 2 - Areas of Superior Value in JS's Proposal**

JS has a significant strength for its approach to invest a significant amount of its own money in human capital development, equipment and research facility marketing. In comparison, Wyle has a strength in this area, but JS proposes to invest more of its money than Wyle, an approach that is considered to be of greater value to the Government. JS has a significant strength for a comprehensive management approach supported by an organizational structure established and aligned on the basis of 15 well-defined core processes with assigned JS owners. In comparison, Wyle has a strength for some of its organizational approaches, weaknesses for its organizational structure and for its approach to accommodate fluctuating workloads, and a significant weakness for its vague engineering management approach. When all of these strengths and weaknesses are considered, it is clear that JS has a far superior overall management approach. JS has a significant strength for its proposed Management Team, which has strong relevant experience managing projects of the size, content and complexity of ROME, particularly in the area of wind tunnel testing in multiple facilities covering a speed range comparable to that in LaRC's suite of facilities. In comparison, Wyle has a significant weakness for its overall management team due to a lack of experience in full-service wind tunnel operations, facility engineering, and in managing contracts of the size, content and complexity as ROME, and a strength for its Quality Manager. JS clearly has the stronger

overall Management Team, and thus provides greater value to the Government in this area.

JS also provides superior value to the Government through its significant strengths in the following areas, for which there are no corresponding strengths in the Wyle proposal: (1) an aggressive, credible and detailed approach to cost reductions and cost control that includes new technologies, innovations, and process improvements, with the majority of the productivity gains to be achieved in the first five years of the contract; and (2) a comprehensive discussion of transition-related risks and mitigation approaches that will significantly minimize changeover difficulties and maximize continuity of services (Wyle has a significant weakness for its proposed transition approach).

### **Subfactor 2 - Areas with Similar Value**

None.

**Subfactor 3, Safety:** The JS proposal offers substantially greater value to the Government than the Wyle proposal offers under Mission Suitability Subfactor 3. JS has a superior technical approach that includes a thorough Safety and Health Plan (for which JS has a significant strength), and has no weaknesses. Wyle has no significant strengths and no significant weakness or weaknesses under this Subfactor. Wyle has a strength for its Safety and Health Plan, because it incorporated processes from an ISO-registered program and exceeded the Government's expectations. JS's proposal provides superior value through its better-demonstrated understanding and approach in safety and health.

**Subfactor 4, SDB Participation:** The JS proposal offers greater value to the Government than the Wyle proposal offers under Mission Suitability Subfactor 4. Neither JS nor Wyle has any significant strengths or significant weaknesses. JS has a strength for proposing a credible approach for SDB participation with enforceable commitments to subcontractors, for demonstrating successful past performance in meeting SDB goals under Government contracts, and for slightly exceeding the 10% SDB subcontracting goal. JS has no weakness under Subfactor 4. In comparison, Wyle has no strengths under this Subfactor, and one weakness for its proposed approach to achieve its SDB goals through the placement of IDIQ work with unspecified subcontractors, coupled with Wyle's past performance record of having difficulty meeting SDB goals.

Under **Factor 2 (Cost/Price)**, Wyle's evaluated price of \$1,017.9M for the total 10-year term of the contract is \$47.5M, or 4.5%, lower than JS's evaluated price of \$1,065.4M. (Evaluated price for both firms includes a 10% upward adjustment to probable cost because an SDB offeror (Cube) did not waive the 10% SDB price evaluation adjustment factor.) The probable cost confidence for both firms is moderate, which provides me with reasonable assurance that the probable costs can be relied upon to compare the likely cost of performance for each firm. Wyle has a net upward probable cost adjustment of \$9.5M, primarily for understated labor escalation and subcontractor costs. JS has an upward probable cost adjustment of \$2.5M for understated subcontractor costs.

Under **Factor 3 (Past Performance)**, JS has an overall rating of “Excellent”, compared to Wyle’s overall rating of “Very Good”. JS demonstrates exemplary performance on previous work (as reported by its customers), while Wyle demonstrates very effective performance on previous work (as reported by its customers). Additionally, JS’s demonstrated experience is judged to be highly relevant to the ROME SOW, while Wyle’s demonstrated experience is judged to be very relevant to the ROME SOW.

JS has highly relevant experience operating, designing and maintaining multiple wind tunnel facilities covering a speed range comparable to that in LaRC’s suite of facilities, institutional and research facility engineering, and management (including consolidations) of contracts for facility O&M of similar size, content & complexity to ROME. JS has very relevant experience in marketing excess wind tunnel capacity, labor management, development and implementation of OME & IT training programs, data acquisition systems, transitioning to turnkey operations for wind tunnels, performance of numerous research facility improvement projects, and EA design and IT consolidation, and lacked relevant experience only in SAP products and institutional facilities maintenance (the latter of which is mitigated by its research facility maintenance experience).

Wyle has highly relevant experience with asset management systems at LaRC like MAXIMO & INFOPC; SAP products; EA design and IT consolidation and integration; General IT Support Services; IT configuration management; business IT project management and enterprise application development and deployment; DAS and instrumentation operations, engineering, calibration, and repair services; central utilities operation; centralized work control, customer service and computerized work order tracking and providing comprehensive RCM based maintenance for facilities and facility systems and project; Energy Management Control Systems; ISO certified processes at LaRC; institutional and research facility maintenance; and base/center operations for Government and commercial customers. Wyle has relevant experience in the transition of Government-to-contractor operations and contract consolidations. Wyle did not demonstrate relevant experience in the following areas: developing and implementing a comprehensive personnel training program; full service operation of wind tunnels; wind tunnel facilities engineering, including tactical engineering or in designing, constructing, and activating wind tunnel construction projects; and FAS maintenance and engineering.

**Comparison Summary:** While Wyle’s evaluated price is 4.5% lower than JS’s, it is my judgment that the additional value provided by JS’s superior proposed approaches in Mission Suitability, especially in the Management Subfactor, combined with JS’s superior past performance, including its higher level of relevant experience, is worth the additional 4.5% expenditure. Specifically, JS’s superior significant strengths for its proposed innovations across the entire SOW, its demonstrated knowledge of potential risks under the ROME contract, its strengths related to research facility operations and facility repair cost avoidance, its innovative engineering design approaches, its superior transition approach for major wind tunnels, its cost reduction approaches and proposed investments, its Safety and Health Plan, and its superior management approach and

Management Team, combined with its superior level of relevant experience, especially in the areas of full service wind tunnel operations in multiple facilities covering a speed range comparable to that in LaRC's suite of facilities, wind tunnel facilities engineering, and FAS maintenance and engineering, provides a better overall value when compared to Wyle's superior significant strengths in research facility operations innovations, the use of MAXIMO to manage all ROME assets, IT security, and its Enterprise Information Portal, Wyle's several significant weaknesses (in FAS and DAS support, engineering management, Management Team, and wind tunnel transition), Wyle's better relevant past performance in DAS and instrumentation operations, engineering, calibration, and repair services, and maintenance of institutional facilities and systems, and Wyle's lower price.

## **B. Source Selection Decision**

The RFP states that the three evaluation factors, Mission Suitability, Price/Cost, and Past Performance, are to be considered essentially equal in weight in selecting a contractor. The RFP also states that Mission Suitability and Past Performance, when combined, are significantly more important than Price/Cost. I conducted an integrated assessment of each proposal in accordance with the RFP's evaluation factors, as detailed in the Comparative Analyses section above. A summary of my conclusions based on this integrated assessment, as well as my selection decision, are as follows:

Jacobs Sverdrup submitted the best overall technical proposal, which offers a superior approach in Factor 1 – Mission Suitability compared to all other offerors. The proposal contains numerous significant strengths and numerous strengths, many of which are in areas of significant importance to Langley Research Center. For example, Jacobs Sverdrup's proposal contained approaches of substantial value to the Government in safety, wind tunnel operations, test data quality assurance, maximizing facility utilization and efficiency, consolidation and transition management of the ROME effort, workforce development, and cost reduction and control). The proposal contained no deficiencies or significant weaknesses. There were only five weaknesses in Jacobs Sverdrup's Mission Suitability proposal, all of which can be managed and successfully mitigated by its strong proposed management team.

In Factor 2 – Cost/Price, Jacobs Sverdrup's evaluated price is reasonable and in line with those of the other offerors and the Government estimate. The moderate confidence in Jacobs Sverdrup's probable cost and evaluated price is equal or better in confidence than that of all other offerors. Moreover, the large number of offerors and the narrow range of evaluated prices give me added confidence that adequate price competition was achieved and that the evaluated prices are reasonable and realistic.

Finally, in Factor 3 – Past Performance, Jacobs Sverdrup has also demonstrated excellent past performance on work that is highly relevant to the ROME effort, particularly in the areas of wind tunnel and research facility operations, maintenance and engineering. This offeror's highly relevant experience in operating, designing and maintaining wind tunnel facilities covering a speed range comparable to that of Langley Research Center's suite of

Source Selection Information (until contract award) – See FAR 3.104

facilities also reinforces my determination that Jacobs Sverdrup offers the best value to the government.

In conclusion, having compared the strengths and weaknesses of all the proposals, it is clear that Jacobs Sverdrup offers a superior approach to Mission Suitability relative to all other offerors. This superior approach, when combined with Jacobs Sverdrup's excellent and highly relevant past performance, provides the best value to the Government when considering the difference in evaluated price in each instance. Therefore, I direct the award of the Research Operations, Maintenance & Engineering Contract to Jacobs Sverdrup.

ORIGINAL SIGNED BY

1/22/04

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Roy D. Bridges, Jr.  
Source Selection Authority

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Date