

**SELECTION OF CONTRACTORS
FOR
SPACE MISSION COMMUNICATIONS AND DATA SERVICES
SOLICITATION**

I, along with other senior officials from NASA Headquarters met with members of the Source Evaluation Board (SEB) and the Centers to hear their findings based on the evaluation of proposals for the Space Mission Communications and Data Services (SMCDS) solicitation. The findings from SMCDS were presented on a per work package basis at briefings scheduled on different dates.

PROCUREMENT DESCRIPTION

The SMCDS solicitation is the follow-on to the Consolidated Space Operations Contract (CSOC) that NASA awarded to Lockheed Martin Space Operations on October 1, 1998. By consolidating many of the agency's communications, flight operations, and data processing space operations functions, CSOC was to eliminate duplication, to streamline processes, and to significantly reduce costs. NASA decided to compete the space operations work rather than exercise the 5-year option of the CSOC because many of the premises on which CSOC was based did not materialize. It should be noted that the CSOC contained both JPL and JSC operational activities that are not included in SMCDS solicitation. SMCDS also includes the former PRISMS activity at MSFC that was not part of CSOC. Additionally, the MSFC requirement for the Huntsville Operations Support Center was not part of the basic period of performance for CSOC; however, this requirement was included in the five-year option in CSOC.

The SMCDS solicitation contains requirements for five separate work packages, which NASA intends to award as individual contracts. Offerors had the ability to propose an agency benefit if they submitted proposals for more than one work package known as a Crosscutting proposal. Crosscutting proposals afford offerors the opportunity to propose a meaningful overall agency benefit similar to those beneficial aspects achieved under CSOC while giving the Centers the flexibility to prepare their own requirements, select the acquisition strategy (including selection criteria), perform the initial evaluation, make award, and manage the contracts. Offerors were permitted to propose on one or more of the work packages; however, the number of Crosscutting proposals offerors could submit was limited by the following formula:

$$(\text{maximum \# of Crosscutting proposals}) = (\text{\# of work packages proposed}) - 1$$

a. Description of Individual Work Packages:

- GSFC: Mission Operation & Mission Support (MOMS) Work Package. This work package involves the Mission Operations support of GSFC and other missions. The work concentrates on the mission control centers at Goddard Space

Flight Center (GSFC) and involves satellite command and control, mission data processing, and satellite orbit determination. As part of this work package, the contractor could be involved in all program phases from concept studies, formulation, development, and operations to decommissioning.

- GSFC: Near Earth Networks Services (NENS) Work Package. This work package involves tracking and data acquisition for near-Earth customer missions. As part of this work package, the contractor will perform customer commitment management; operate and maintain the Ground Network (GN); operate and maintain the Space Network (SN); and perform sustaining engineering, logistics, facilities management, and hardware and software development.
- KSC: Kennedy Integrated Communication Services (KICS) Work Package. This work package involves providing communication services at KSC in support of Space Shuttle Program, International Space Station Program, Payload Carriers Program, Launch Services Program Office payloads, and center wide business engineering logistics, facilities management, hardware and software integration and development for voice, video, and data communication assets under KSC responsibility (i.e., KSC, Cape Canaveral Air Force Station (CCAFS), Dryden Flight Research Center (DRFC), Continental United States (CONUS) landing sites, and Trans-Atlantic (TAL) landing sites). (This work package is set aside for small business.)
- MSFC: Unified NASA Information Technology Services (UNITeS) Work Package. This work package provides for the development, implementation, and management of Information Technology (IT) services for the Agency and to MSFC. Support to the Agency includes provision of agency wide information management services such as the NASA Integrated Services Network (NISN), the Integrated Financial Management (IFM) Integration program, Sustaining Engineering Support for Agency-wide Administrative Systems (SESAAS), the NASA ADP Consolidation Center (NACC) and the NASA Computing and Communications Services (NCCS). Support to MSFC includes applications software, computer systems, telecommunications, multi-media, IT security and other miscellaneous IT services.
- MSFC: The Huntsville Operations Support Center (HOSC) Work Package. This work package involves providing voice, video, and data telemetry services in support of simulations, near real-time and real-time flight mission support, which replaces effort performed under the Utilization and Mission Support Contract, and providing support and services to the Data Reduction Center (DRC) which supports MSFC and other NASA Centers for Shuttle, payload, and component test data analysis. (This work package is set aside for small business.)

b. Description of the SMCDS Evaluation Process: The Source Evaluation Board (SEB) at Headquarters evaluated the SMCDS solicitation with the significant input from the Center Work Package Evaluation Teams (WPETs) provided for each work package. The SEB reviewed the Center evaluations for the stand-alone proposals and evaluated the Crosscutting proposals. The SEB also was responsible for the consolidated report of

findings to the SSA regarding award, including award on initial proposals and competitive range determinations.

The WPETs performed the initial evaluation of the proposals in accordance with the evaluation criteria stated in the solicitation for each work package, and, as appropriate, provided input to Headquarters on any Crosscutting proposal affecting its work packages. The Centers had non-voting members on the SEB to participate in SEB discussions to facilitate communications among the WPETs and SEB. The primary responsibility of the WPET representative on the SEB was to amplify and/or clarify the WPET's initial report as necessary. In order to fulfill their responsibilities, the WPET representative members had full access to their WPET deliberations and also were able to participate in all SEB discussions affecting their WPET evaluation.

If a work package was not part of any Crosscut proposal, the evaluation plan stated that the SEB had the ability to take a less active role in the evaluation of proposals and, instead, could operate as an executive advisory/oversight board. The SEB retained the authority to amend any finding made by a WPET; however, the SEB is required to justify and document any such changes. Additionally, the SEB was required to 1) notify a WPET before making any changes to its findings and 2) inform the SSA about any significant disagreement between the WPET and the SEB. A deviation from the requirements of the NASA FAR Supplement was granted on April 11, 2003 to enable the use of this evaluation process for the SMCDS solicitation.

c. Source Selection Statement

The source selection statement is drafted in "chapters" to accommodate the fact that there are five work packages in SMCDS as well as Crosscutting proposals that can be awarded on a staggered basis. Section L.2 of the RFP emphasized NASA's desire to award on initial proposals where appropriate, stating that such selections would be made after deciding "(1) such a selection will result in the best value for the Government, based on the specified evaluation; and (2) discussions with other acceptable offerors are not anticipated to change the outcome of the initial evaluation relative to the best value offer(s)."

Chapter 5

HOSC

EVALUATION PROCEDURES

The Request for Proposals (RFP) defined the evaluation factors as Mission Suitability, Past Performance, and Price Reasonableness/Cost Realism. The Mission Suitability Factor is the most important factor. The Past Performance Factor and the Cost Factor are approximately equal in importance and each is slightly less important than the Mission Suitability Factor.

Of these evaluation factors, the RFP provided that only Mission Suitability would be point scored in the evaluation process. In this regard, the RFP defined Mission Suitability as consisting of the following subfactors and assigned points to each as indicated.

Management Approach	350
Technical Approach	300
Staffing	250
Safety and Health	<u>100</u>
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Total points	1000

Prior to the issuance of the RFP, the WPET had developed detailed evaluation criteria and the numerical scoring system for Mission Suitability as delineated above. In explaining the detailed evaluation procedures, the RFP described the evaluation factors and subfactors, provided the Mission Suitability numerical scoring scheme and specified the criteria to be used in the evaluation.

The RFP provided for the evaluation, but not numerical scoring, of the Past Performance and Cost factors. To assist in evaluating the Past Performance factor, the RFP provided the adjectival ratings of "Excellent," "Very Good," "Good," "Fair," "Poor," or "Neutral" depending upon the assessment of each proposal in this area. Evaluation of proposals under this factor took into consideration the offerors' experience with the technical, schedule, and cost performance of contracts involving programs of a similar nature and magnitude. Regarding the Cost factor, the RFP stated that the adequacy and realism of the cost proposal and the probable cost to be incurred would be evaluated. In addition, the RFP provided for a risk analysis for the Cost factor, which identifies risk areas and the recommended approaches to minimize the impact of those risk areas on the overall success of the program. The RFP also provided for an adjustment to the Mission Suitability score based on the percentage difference between proposed and probable costs.

EVALUATION PROCESS

NASA issued the RFP on April 9, 2003 and received five timely proposals by May 27, 2003. The offerors consisted of teams led by the following:

COLSA Corp.
Huntsville, AL

Madison Research Corp. (MRC)
Huntsville, AL

Science Systems and Applications, Inc. (SSAD)
Lanham, MD

Barrios Technology
Houston, TX

Cimarron Software Services
Houston, TX

(None of these offerors submitted a Crosscutting proposal involving the HOSC work package.)

The SEB appointed for this procurement used the expertise at the Centers and relied upon the WPET evaluation of the stand-alone proposals submitted for the HOSC work package. The WPET report for HOSC was submitted on August 26, 2003 after receiving inputs from the SEB. There was no disagreement between the WPET for HOSC and the SEB even though the SEB retained the authority to amend any of the WPET's findings.

The WPET applied the established numerical weights and produced a Mission Suitability score within the adjectival ratings developed for each proposal. To arrive at the adjectival rating for Past Performance, the WPET relied on the experience identified in each proposal and information obtained from the contacts identified in the proposals as well as data contained in the Past Performance Information Reporting System. Finally, the WPET assessed the probable cost of the prices with a risk assessment of the cost proposed by each offeror. On September 3, 2003, the WPET, with the concurrence of the SEB, presented its initial findings to the SSA.

After the initial briefing to the SSA, the competitive range was established consisting of COLSA and MRC since these offerors were found to have submitted the most highly rated proposals for the HOSC requirement. Discussions began on September 9th when the WPET sent letters to the offerors in the competitive range regarding the weaknesses in each offeror's proposals. The WPET conducted oral discussions on September 22 and 23 and the offerors submitted their Final Proposal Revisions (FPR) on October 1, 2003. On November 13, 2003, the WPET presented its findings on the FPR to the SSA.

MISSION SUITABILITY EVALUATION

Scoring each subfactor in accordance with the weights delineated in the RFP resulted in the following ranking of the proposals:

COLSA Corp.
Madison Research Corp. (MRC)

The substance of the WPET's evaluation of Mission Suitability for each proposal follows.

COLSA Corp.

COLSA received an overall adjectival rating of "Excellent," earning the higher score in Mission Suitability and receiving the higher score for the Management Approach and Technical approach subfactors. COLSA and MRC earned the same score for the staffing subfactor. COLSA received a slightly lower score in the Safety and Health subfactor.

COLSA's proposal contained several significant strengths in each of the subfactors for management, technical, and staffing. The COLSA proposal did not contain any significant weaknesses. The significant strengths in management included an innovative management organization that included an Integration Office responsible for looking across the entire support effort; access to CSC's online knowledge base that would provide a wealth of outside expertise; and a detailed and realistic phase-in plan. COLSA's significant strengths under the technical approach subfactor included proposing an outstanding software engineering process that was compliant with the Software Engineering Institute Capability Maturity Model (CMM) Level 4; proposing an excellent systems engineering framework for planning and controlling system development through the use of the CSC Catalyst methodology; providing a very good process for IV&V spanning the entire life cycle of the program; having very strong procedures for maintenance, development and testing; and proposing a very specific time-phased plan for integrating the Data Reduction Center (DRC) into the HOSC. With regard to the staffing subfactor, COLSA received significant strengths for its proposed Program Manager and its proposed Integration Manager/Chief Architect.

MRC

MRC received an overall adjectival rating of "Very Good," earning the lower score in Mission Suitability and the lower score for the Management Approach and Technical approach subfactors. MRC received a slightly higher score for the Safety and Health subfactor and the same score as COLSA for the Staffing subfactor.

MRC's proposal contained significant strengths in the subfactors for management, technical, and staffing. The MRC proposal did not contain any significant weaknesses. The significant strengths found in the management and technical subfactors included

having a teaming arrangement with direct, relevant and in-depth knowledge and experience; proposing a no cost phase-in plan that contained minimal risk; and proposing a comprehensive and detailed implementation approach to accomplish project unique requirements for ISS and Shuttle. With regard to the staffing subfactor, MRC received significant strengths for presenting a low-risk plan for recruitment and retention of skilled personnel; for its proposed Program Manager; and for its proposed Operations and Maintenance Manager.

PAST PERFORMANCE EVALUATION

In its evaluation of Past Performance, the WPET rated COLSA as "Very Good" based on demonstrated strong technical performance on relevant work; excellent marks for initiating and developing several technical features in previous contracts with potential benefits to the HOSC contract; and proposing a subcontractor that had achieved Software Engineering Institute CMM Level 5 certification on a previous contract. MRC also was rated "Very Good" based upon high performance ratings as the incumbent for the Utilization and Mission Services (UMS) contract and DRC task under CSOC as well as high technical performance ratings on other contracts not related to the HOSC.

COST EVALUATION

In comparison with MRC, COLSA had the higher proposed cost and the higher probable cost. In order to calculate probable cost, the WPET applied the offerors' proposed ceiling rates for G&A to proposed cost. This calculation resulted in a very small upward adjustment to COLSA's proposed cost and a smaller increase to MRC's proposed costs. The WPET had a high level of confidence regarding the adjustments it made to the proposed costs of COLSA and MRC.

DECISION

During the presentation, I carefully considered the detailed findings the WPET presented. I solicited and considered the views of key senior personnel at NASA Headquarters and Center representatives during the executive sessions after the presentation on HOSC. These key senior personnel have responsibility related to this acquisition and understood the application of the evaluation factors set forth in the RFP.

In determining which proposal offered the best value to NASA, I referred to the relative order of importance of the three evaluation factors specified in the RFP.

The Mission Suitability Factor is the most important factor. The Past Performance Factor and the Cost Factor are approximately equal in importance and each is slightly less important than the Mission Suitability Factor.

My selection was based on a comparative assessment of each proposal against each of the source selection factors.

With regard to Mission Suitability, the WPET found COLSA submitted an "Excellent" proposal that was particularly impressive in the areas of management approach, technical approach, and staffing. Under management approach, I observed COLSA proposed an innovative management organization that included an Integration Office. The functions of this office encompassed the entire support effort. Specifically, this office was responsible for strategic planning, new technology infusion, marketing to new HOSC customers, and technical integration across Engineering and Operations & Maintenance (O&M). I believed this innovative management organization would provide a linkage between development and O&M, provide a focal point for the program vision by looking at the HOSC effort over time, reach out to new clients, and look for new business for the HOSC. Also, I noted that COLSA had proposed access to CSC's online knowledge base, CSC Sources that contains a wide variety of lessons learned and technical solutions for the multitude of CSC development projects. I believed access to CSC Sources would provide outside expertise and would be an invaluable resource in maintaining schedules on projects underway at the HOSC. Additionally, I considered the detailed and realistic phase-in plan COLSA proposed that was to begin 30 days before Authority to Proceed (ATP) and be completed 21 days after ATP. As part of its phase-in plan, COLSA proposed to have a Transition Tiger Team of senior managers with combined corporate resources to oversee all transition activities. It was my opinion that COLSA's short, aggressive phase-in period would increase the likelihood of retaining the incumbent workforce and of reducing costs to the Government. COLSA's proposed use of a Tiger Team also would help to better ensure transition would be successful.

Under technical approach, I was aware that COLSA provided an outstanding software engineering process that included spiral development methodology with release-based maintenance, extensive use of peer reviews, use of support tools for requirements traceability and impact analysis, an emphasis on good design practices, thorough regression and acceptance testing, and individual ownership/accountability for specific software units. Moreover, this proposed software engineering process would be compliant with Software Engineering Institute CMM Level 4 standards. I believed that the quality of COLSA's software engineering process would reduce risk for the HOSC. Also, I noted that COLSA proposed an excellent systems engineering framework for planning and controlling system development through the use of CSC Catalyst, which is a standardized tool that can be used across the entire product life cycle and can be tailored for specific projects. The use of the CSC Catalyst methodology would increase efficiency, thereby reducing risk and cost to the HOSC.

In addition, I considered the fact that COLSA proposed a very good process for IV&V, which spanned the entire life cycle rather than just applying to post-delivery test and verification and would enable COLSA to correct problems earlier, thereby minimizing errors and reducing cost. Also I noted, COLSA had a very strong approach to procedures maintenance, development, and testing that involved cataloging and reviewing current procedures to verify accuracy, confirming staff compliance with those procedures, ensuring compliance with HOSC standards, and if necessary, updating and graphically augmenting procedures. Once completed, COLSA proposed to re-baseline and re-publish

the updated procedures. I found that COLSA's approach to procedures would result in clearer, more consistent procedures that would enhance training and the human operation for HOSC operations. The last significant strength under technical approach was COLSA's specific, time-phased plan to integrate the DRC into the HOSC that included proposed enhancements to the DRC such as web-based user requirements submittal and electronic product delivery. The proposed improvements contained in the COLSA plan to integration of the DRC would increase efficiencies, lower costs, and enable those efficiencies to be realized on a realistic schedule.

The last two subfactors under Mission Suitability were Staffing and Safety and Health. For reason discussed below, I did not find these subfactors to be discriminators for selection. I was aware the personnel COLSA proposed for the HOSC effort were highly qualified and had excellent references. With regard to Safety and Health, COLSA submitted an acceptable plan that did not contain any weaknesses or noteworthy strengths.

I also considered the strengths in the MRC proposal, which received a "Very Good" Mission Suitability rating; however, I was aware that MRC was not as strong in management or technical as COLSA. Under management approach, I noted that MRC proposed a teaming arrangement with Lockheed Martin, New Technology, Inc. (NTI), and bd Systems. This team had direct, relevant, and in-depth knowledge and experience based upon their experience with the UMS contract and the DRC task order under CSOC. In fact, this team essentially could be viewed as the incumbent under HOSC except for the fact that one of the current CSOC subcontractors would become prime. I believe this teaming arrangement would greatly decrease any effort MRC might need to become familiar with the HOSC systems and processes. MRC also had an excellent plan to accomplish phase-in at no cost and with minimal risk to ongoing development and operations. Because MRC's proposed team was comprised of the incumbent contractors, I was fully confident that MRC would have a smooth transition to the HOSC contract.

Additionally, I was aware that MRC had a very comprehensive and detailed implementation approach for accomplishing the project unique requirements for the ISS and Shuttle. This approach demonstrated MRC's complete understanding of the requirements, something that increased the likelihood of successful performance on two of NASA's major programs that are supported by the HOSC.

The WPET gave MRC and COLSA identical scores for the Staffing subfactor and very similar scores for the Safety and Health subfactor. Like COLSA, MRC proposed highly qualified personnel with excellent references. In addition, the WPET gave MRC a strength for its low-risk plan for recruitment and retention of skilled personnel. MRC already had 98% of the incumbent HOSC personnel with transfers occurring from LM and NTI to MRC and from NTI to bd Systems to meet teaming agreement commitments. I agreed with the WPET assessment that the fact MRC had 98% of the incumbent workforce was not a significant discriminator for selection given COLSA's short, aggressive phase-in plan to capture the incumbent workforce. With regard to Safety and

Health, MRC also had submitted an acceptable plan that did not contain any weaknesses or noteworthy strengths.

Examining the Cost factor, I noted that MRC's probable cost was approximately 2.5% lower than the probable cost for COLSA. According to the WPET, much of this difference was due to COLSA's higher G&A costs and, to a lesser extent, its higher overhead rates. I noted that although COLSA had a slightly higher cost, the COLSA proposal contained somewhat fewer Full Time Equivalents (FTE's) than MRC offered. Most of the difference in FTEs was due to the fact that MRC proposed more FTEs for management than COLSA proposed. The WPET assured me it believed COLSA and MRC both could successfully perform the HOSC effort with the labor mix each offeror proposed that matched their proposed approach.

The WPET made the adjustments to each offeror's proposed price by applying the proposed ceiling rates for G&A to proposed cost. In addition, the WPET evaluated the probable cost of the ID/IQ portion of the contract and adjusted each offeror's proposed cost accordingly. Consistent with the evaluation criteria, phase-in costs were not included in the base price of the HOSC although the WPET evaluated these costs to determine whether they were reasonable and realistic. The WPET had a very high level of confidence regarding its assessment of probable costs and I did not have any reason to disagree with this assessment.

Past performance, the third and final factor used to evaluate HOSC did not result in any discriminator since COLSA and MRC both received a rating of "Very Good." I did not have any reason to disagree with the WPET's analysis regarding Past Performance.

The first step I made in deliberations was to apply the evaluation criteria to the WPET's findings. The evaluation criteria stated that Mission Suitability was the most important factor with Cost being slightly less important than Mission Suitability. COLSA had the superior rating in Mission Suitability receiving an "Excellent" compared to the "Very Good" received by MRC. MRC's probable cost, though, was approximately 2.5% lower than the probable cost of COLSA. Based upon the evaluation criteria that emphasized mission suitability over cost, it appeared COLSA should be selected for award because it had the better proposal notwithstanding a slightly higher cost.

In addition to applying the evaluation criteria, I also believed it was necessary to make a second determination involving a best value analysis since it was obvious that COLSA and MRC both were capable of successfully operating the HOSC. In this regard, I questioned whether COLSA's higher technical rating justified the approximate 2.5% difference in cost. I re-examined both proposals and again considered the fact that COLSA had an outstanding software engineering process and had demonstrated excellent software engineering with its accreditation at the CMM Level 4 level under a separate contract. I found this capability to be extremely significant since the HOSC effort is software intensive. MRC, on the other hand, did not propose the same level of software engineering discipline as COLSA. Because of the difference, I believed that MRC was a more likely candidate for additional Agency level IV&V than was COLSA. Agency

level IV&V costs represent additional cost to the program outside those of performing the contract. It was my opinion that the difference in software engineering discipline, at a minimum, offset MRC's minor cost advantage.

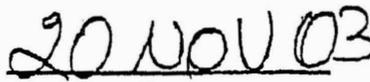
I also recognized COLSA's strengths in its use of the CSC Catalyst methodology, its excellent process for IV&V, its strong approach to procedures, and its phased plan for integrating the DRC into the HOSC. I believed the combination of these strengths represented advantages over those proposed by MRC. More importantly, these features should allow COLSA to find problems earlier, better maintain schedule, reduce errors, standardize processes, and reduce risk. All of these attributes would enable COLSA to reduce the cost of performance as well as minimize other program costs outside of the contract. MRC appeared to have proposed processes that were similar to the current contract. Overall, I found that COLSA's technical approach was more rigorous than the one MRC proposed and this more rigorous process justified COLSA's slightly higher probable cost.

Additionally, there was a significant difference between COLSA's management approach and MRC's management approach. One of those differences involved COLSA's innovative management organization that included an Integration Office for strategic planning. I believed COLSA's management organization would provide a linkage between development and O&M, would provide a focal point for the program vision, and would enable COLSA to reach out to new clients for new opportunities. On the other hand, the MRC organization contained an executive oversight committee comprised of bd Systems, NTL, LM, and MRC that reported to the President of MRC and to the HOSC Program Manager. While I recognized that the executive oversight committee brought diverse expertise/knowledge to MRC, I also was aware that such a structure could make MRC more rigid, bureaucratic and/or reluctant to change. NASA is a dynamic agency and needs the ability to change mission quickly and, therefore, I believed COLSA's more forward looking organizational structure also justified the difference in probable cost.

Based on the foregoing, I concluded that the advantages COLSA had in Mission Suitability outweighed the slight cost advantage of MRC. This decision is consistent with the relative order of importance in the evaluation criteria, which states the Mission Suitability factor is the most important of the three selection factors. Additionally, I concluded that COLSA represents the best value to the Government since for the reasons stated above, I found that the technical benefits contained in COLSA's proposal are worth an additional 2.5% in probable cost.

Accordingly, I select COLSA for award of the contract to operate the Huntsville Operations Support Center (HOSC).


Bryan O'Connor


Date