

GAO

Report to the Chairman and Ranking
Minority Member, Committee on
Government Operations, House of
Representatives

November 1992

ARMY ACQUISITION

Contract for the
Reserve Component
Automation System



147994

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**National Security and
International Affairs Division**

B-247383

November 5, 1992

The Honorable John Conyers, Jr.
Chairman
The Honorable Frank Horton
Ranking Minority Member
Committee on Government Operations
House of Representatives

As requested, we have reviewed the Army's award of the Reserve Component Automation System (RCAS) contract. This report addresses (1) whether the Army complied with the applicable acquisition laws and regulations and (2) how the Army justified its decision to award the RCAS contract to other than the low-cost contractor. You also asked specific questions on these issues; appendix I addresses these questions in detail.

Results in Brief

We found no basis on which to object to the Army's award decision. Applicable laws and regulations were followed; a proper cost and technical analysis was performed; and the Source Selection Authority fully documented the rationale for his decision to make the award to other than the low priced offerer. The Request for Proposals clearly communicated that technical capability would be considered more important than cost. In his decision, the Source Selection Authority concluded that the technical capability of Boeing Computer Services' (BCS) proposed system more than offset the difference in cost, although cost was considered in his decision. This process fully conformed to the source selection plan and the information provided to all prospective offerers in the Request for Proposals.

Background

Since 1979, the Army has tried, with only limited success, to field an automated information system for its reserve component—the Army National Guard and the Army Reserve. The Army's first attempt at an integrated automated system for the reserve component was called the Continental Army Management Information System. In 1985 the Continental Army Management Information System was suspended, and in 1986 it was replaced with the Reserve Component Automation program. This program was intended to provide automation to a broader range of reserve component functions, adding telecommunications to unit administration and mobilization planning. All of these automation attempts were funded with active component appropriations.

In July 1987, the Reserve Component Automation program ended, and the Department of Defense initiated planning for the RCAS program. The fiscal year 1988 Defense Appropriations Act and congressional guidance mandated the RCAS program and provided directions for the system's acquisition. The act put management control of the RCAS program under the Chief of the National Guard Bureau.

The RCAS will be an automated information management system to support reserve component forces using state-of-the-art computer workstations to provide timely and accurate information for (1) mobilization planning and execution and (2) unit administration. When fielded, the RCAS is expected to be capable of exchanging data with over 100 other Army information systems.

The funding for the RCAS came from Army reserve component appropriations, which Congress set aside exclusively for this use. Through July 31, 1992, about \$270 million had been expended, and \$454 million had been appropriated. In fiscal years 1988 and 1989, the RCAS Program Management Office could not spend all the money appropriated because the RCAS contract had not yet been awarded. Additional funding of about \$1.1 billion has been programmed by the Army through fiscal year 1999. The Army estimates the total program cost could reach \$1.8 billion through the end of the contract in fiscal year 2002.

Key Events in the RCAS Acquisition

On January 5, 1990, the Army released to over 500 potential contractors the RCAS Request for Proposals. On April 30, 1990, proposals were received from three contractors: General Dynamics Corporation, Computer Sciences Corporation (CSC), and Boeing Computer Services. On September 28, 1990, the Source Selection Authority decided that General Dynamics Corporation would be removed from further consideration because it offered about the same technological solution as BCS but at a substantially higher cost. He selected BCS and CSC as the two competitors having different technical approaches with realistic chances for award. CSC and BCS performed competitive demonstrations of their solutions in March and April 1991. These demonstrations were evaluated by the Source Selection Advisory Council (SSAC) and the Source Selection Evaluation Board (SSEB).

After the competitive demonstrations, the Army held negotiations with the contractors to resolve problems that arose. On the basis of these negotiations, lessons learned from the competitive demonstrations, and

evolving Army requirements, BCS and CSC submitted best and final offers in August 1991.

BCS was selected as the prime contractor on September 27, 1991, and was awarded the contract for the remaining phases of the acquisition. The Source Selection Authority determined that BCS provided a clearly superior technological solution. Furthermore, the Army estimated BCS's total life-cycle cost at about \$19 million less than CSC's.

The Army's Information Systems Selection and Acquisition Agency and RCAS Program Management Office officials debriefed CSC on October 3, 1991. They informed CSC that the primary reasons it had not been selected as the RCAS contractor were that its proposal included

- the use of inconsistent keyboard functions,
- a weakness in accommodating the insertion of future technology,
- an unclear Integrated Logistics Support concept, and
- a failure to fully understand the reserve component's operational environment.

CSC filed a protest with the General Services Administration Board of Contract Appeals (GSBCA) on October 7, 1991.¹ On December 30, 1991, the GSBCA ruled that

- CSC's bid strategy was to be the low-cost vendor, offering a character-based system, in spite of knowledge that windows and graphics capabilities were easier to use and provided more functionality;
- CSC's proposed system was functional, but BCS's clearly had significant technical advantages; and
- the Source Selection Authority's award decision was in accordance with the Request for Proposals' stated evaluation criteria.

Consequently, CSC's protest was denied. The GSBCA, did, however, make a number of adjustments to both contractors' life-cycle cost estimates that resulted in BCS's proposal cost being \$96 million higher than CSC's. (App. II is a chronology of key events in the RCAS acquisition. App. III shows the life-cycle cost estimates for the solutions proposed by BCS and CSC.)

¹CSC could have filed a bid protest with either GAO or the GSBCA.

The RCAS Acquisition Complied With Applicable Laws and Regulations

The Army complied with applicable laws and the Federal Acquisition Regulation in awarding the RCAS contract. The Program Management Office established an organizational structure to include the proper source selection personnel. It prepared all the necessary presolicitation and solicitation documentation.

The Act

The fiscal year 1988 Defense Appropriations Act and congressional directions mandated the RCAS program and directed its acquisition as follows:

- The Chief of the National Guard Bureau was designated as the Source Selection Authority.
- The reserve component was not permitted to acquire any new computer equipment until the RCAS contract was awarded.
- The Office of Management and Budget Circular A-109 for major system acquisitions was to be followed.

Circular A-109 called for

- promoting full and open competition,
- creating an acquisition management organizational structure,
- describing needs in terms of mission,
- writing a comprehensive functional description of needs,
- tailoring an acquisition strategy,
- allowing for competitive exploration of alternative system design concepts,
- ensuring competitive demonstrations of performance, and
- using life-cycle costs for making the selection decision.

The Correct Presolicitation and Solicitation Sequences Were Followed

As called for in the Federal Acquisition Regulation, the following presolicitation documents were prepared: an acquisition strategy, an acquisition plan, and a source selection plan.

The solicitation process began with a Request for Proposals and a functional description of RCAS mission needs. The Request for Proposals provided contractors with information on the five evaluation factors, their subfactors, and their relative importance.

A Proper Acquisition Management Organizational Structure Was Established

The Source Selection Authority was the official designated to direct the source selection process, approve the selection plan, select the source, and announce the contract award, as well as appoint the members of the SSAC and the SSEB. The SSAC and SSEB member appointments were made jointly by the Source Selection Authority and the Chief of the Army Reserve based upon names submitted by RCAS Program Management Office officials.

The SSAC was composed of six high-level members—five Army generals and one Senior Executive Service civilian—who were chosen based on their experience and qualifications. They established the evaluation criteria and recommended approval of the source selection plan. The role of the SSAC was to compare the proposals, with full access to cost information. The SSAC provided the Source Selection Authority with a report on its analyses.

The SSEB was composed of over 100 Army officials and selected contractor personnel. It evaluated each proposal on an individual basis against the Request for Proposals' requirements, the evaluation criteria, and standards—the SSEB did not compare proposals to each other. In addition, the SSEB evaluated the competitive demonstrations and participated in negotiations with the contractors concerning costs and problems in meeting the requirements. The SSEB briefed the SSAC and the Source Selection Authority on its evaluations. On the basis of its overall evaluation, the SSEB developed its position on the evaluation factors in a report to the SSAC—a copy of which was given to the Source Selection Authority.

Neither the SSAC nor the SSEB made a source selection recommendation to the Source Selection Authority, nor did he ask for recommendations from either group. The Source Selection Authority was expected to exercise his informed judgment based on a consideration of their reports. He was not required to follow the advice of either group but was required to justify his decision.

The Evaluation Criteria

The RCAS Request for Proposals specified that the successful contractor would be the one that met the requirements and provided the best combination of cost and technical capability. The Request for Proposals clearly communicated that the technical capabilities of the proposed system would be considered more important than its cost and that the desired system not only should reflect the state-of-the-art technology available in the commercial marketplace but should be capable of incorporating new technology as it became available.

The five evaluation factors, as described in the Request for Proposals, were listed in order of relative importance—but not numerically weighted—as follows: (1) mission suitability, (2) technical, (3) logistics, (4) management, and (5) cost. The Request for Proposals described the evaluation factors mission suitability and technical as equally important; logistics was closer in importance to mission suitability and technical than it was to management; management was significantly below logistics; and these four factors were collectively more important than cost. The Request for Proposals also listed subfactors—such as training, deployment and acceptance, and functionality—in order of relative importance and described the many elements comprising the subfactors. The elements described the standards that proposals had to meet. For example, one element was described as follows: “User friendliness (ease of use) hardware, software, telecommunications and security attributes of the RCAS components.”

Each of the noncost factors was evaluated by the SSEB and the SSAC and given a color rating and an assessment of risk. Color ratings represented how well the proposal met the Request for Proposals’ requirements. Specifically, (1) red indicated a failure to meet requirements, needing major revision to correct; (2) yellow indicated a failure to meet requirements, with a chance of correction; (3) green indicated that the requirement was fully met; and (4) blue indicated the requirement was exceeded in a beneficial way.

Risk assessments described the potential for disrupting the schedule, degrading performance, or increasing cost. Risk was noted after each factor and subfactor rating as either low, moderate, or high. Table 1 summarizes the results of the SSEB’s and the SSAC’s evaluations of the noncost factors.

Table 1: Color Ratings and Risk Assessments

Contractor	SSEB's rating/risk	SSAC's rating/risk
BCS		
Mission suitability	Yellow/moderate	Green/moderate
Technical	Green/ high	Green/ moderate
Logistics	Yellow/ high	Yellow/ moderate
Management	Green/low	Green/low
CSC		
Mission suitability	Green/moderate	Yellow/moderate
Technical	Yellow/high	Yellow/high
Logistics	Yellow/moderate	Yellow/moderate
Management	Green/moderate	Green/moderate

Note: Text in bold denotes differences between the SSEB and SSAC evaluations.

Source: GSBCA decision on CSC protest of RCAS contract award.

The cost factor was not evaluated in terms of color ratings and risk assessments. Rather, each contractor's proposal was evaluated to determine whether (1) all the cost information required by the Request for Proposals was present, (2) all costs were factual and supported by valid assumptions and estimating techniques, and (3) costs were realistic in terms of the proposed scope and effort.

The Army's RCAS Award Decision Was Supported by Detailed Cost and Technical Analysis

The SSEB and the SSAC performed evaluations of the technical capability and cost proposals of the contractors and prepared independent reports that were sent to the Source Selection Authority. All the noncost factors were rated either green or yellow by the SSEB and the SSAC, and the risk assessments covered the full range from high to low, although most were moderate. The SSAC and the SSEB rated both contractors equally for all the evaluative factors except for mission suitability, on which they differed. They also differed on the risk assessments for BCS's technical and logistics factors—with the SSEB giving these a high risk and the SSAC assigning them a moderate one.

The SSEB's Evaluation of Contractor Proposals

To evaluate the two contractors' proposals, the SSEB established a panel for each of the five factors. The panels rated each proposal individually: elements first, then subfactors, and then factors. The proposals were rated against the standards contained in the elements, receiving a minus, a check, or a plus, depending on whether the proposal failed to meet, met, or exceeded the required standards.

Subfactor ratings were derived by combining each individual evaluator's overall element ratings into a single color rating and risk assessment. Likewise, the overall factor color ratings and risk assessments were a combination of all the subfactor evaluations. The combined ratings and risk assessments generally represented a consensus of all the individual evaluators' work, were documented with written justifications at each level, and were summarized in the SSEB's final report.

The SSEB cost panel evaluated contractor cost proposals for the accuracy and realism of their life-cycle costs. The cost panel members were the only SSEB evaluators that had access to cost information. The other SSEB panels did not have cost data available to them. In each cost proposal, the SSEB found a number of errors and omissions, which were described in its final briefing and report to the SSAC on September 18 and 19, 1991. The SSEB was formally disbanded on that date. The SSEB also gave its evaluation report to the Source Selection Authority.

The SSAC Analysis of Contractors' Proposals

For each of the five evaluative factors, the SSAC made an individual member responsible for knowing about relevant information. The responsible member met with the appropriate SSEB panel concerning the factor to ensure his own knowledge and to be able to brief other SSAC members. Using this mechanism, the SSAC evaluated the two proposals for technical capability and cost. Then it provided its analysis and the rationale for its ratings in a report to the Source Selection Authority.

We were told by several sources that the SSAC's ratings were derived from (1) an understanding of the SSEB's evaluation of technical proposals and estimated costs, (2) a comparison of the two proposals by RCAS technical experts, (3) a matching of proposed costs to planned activities and capabilities to see whether they were adequately funded, (4) knowledge gained from visiting the two competitive demonstrations, and (5) their own extensive command and personal experience.

The SSAC and the SSEB Assigned Different Mission Suitability Color Ratings

The SSAC and the SSEB color ratings for both contractors were the same for all the evaluative factors—except for mission suitability. BCS's mission suitability factor was rated yellow by the SSEB and green by the SSAC; CSC's mission suitability factor received the opposite ratings—green from the SSEB and yellow from the SSAC. Mission suitability had four subfactors: (1) functionality, (2) training, (3) deployment and acceptance, and (4) personnel. The SSEB and the SSAC differed over the color ratings of two

subfactors for BCS and three subfactors for CSC. The rationale for the SSEB's rating BCS yellow was that BCS's proposal did not include enough supervised training and that it relied too heavily on the user at the site to install computer equipment. The SSAC rated CSC yellow because its technical approach restricted the ability to use windows (a rectangular on-screen frame through which you can view information), lacked standard keyboard configurations, could not electronically transfer files to other Army systems, used inconsistent keyboard functions, and could not depict entire Army forms on the computer screens. (See app. IV for further discussion.)

The SSEB and the SSAC Differed on Their Risk Assessments of BCS's Technical and Logistics Factors

In assessing the risk involved in the BCS proposal, the SSEB and the SSAC differed on the security subfactor of the technical factor and several subfactors of the logistics factor. In both cases, the SSAC judged the risk to be at a lower level than the SSEB. (See app. IV for further discussion.)

The SSAC's Analysis of Life-Cycle Costs

The SSAC also compared and analyzed the life-cycle costs of the two proposals. The SSAC concluded that if the CSC proposal were selected, the system would need a costly technological upgrade early in the contract period to be able to achieve required future interfaces with other Army automated systems and to provide additional technical capability. The technology upgrade's cost was estimated conservatively at \$250 million, and this figure was independently verified by the Army's Cost and Economic Analysis Center. On September 23 and 25, 1991, the SSAC provided reports to the Source Selection Authority detailing its reason for adjusting CSC's life-cycle costs and for differing with the SSEB on a factor rating and various risk assessments.

Scope and Methodology

We conducted our work at (1) the Reserve Component Automation System Program Management Office, Newington, Virginia; (2) the Office of the Chief of the National Guard Bureau, Washington, D.C.; (3) Boeing Computer Services, Reston, Virginia; (4) Computer Sciences Corporation, Moorestown, New Jersey; and (5) Headquarters, Departments of Defense and the Army, Washington, D.C.

At the RCAS Program Management Office, where we conducted the majority of our work, we interviewed personnel and obtained RCAS Program Management Office and Information System Selection and Acquisition

Agency documents, as well as documents from the GSBCA records. The major focus of our work was our analysis of the RCAS acquisition process and the documented support for the Source Selection Authority's final award decision. We did not evaluate the need for RCAS. We reviewed information and data pertaining to the source selection process and discussed this information with RCAS Program Management Office and source selection personnel. We interviewed many key decisionmakers, including the Source Selection Authority, on their roles in the acquisition.

We evaluated the technical requirements in the RCAS Request for Proposals and compared the two proposals against the technical criteria to determine whether the contractors met these requirements. These criteria included the technical specifications, the statement of work, and the functional description. Additional input to the technical evaluation came from interviews with key Army, BCS, and CSC officials and computer experts at the National Institute of Standards and Technology.

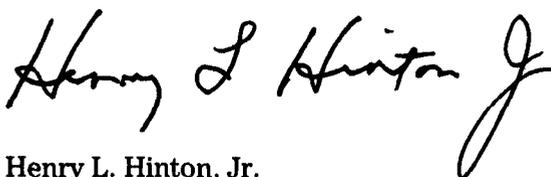
We conducted our review from February through July 1992 in accordance with generally accepted government auditing standards.

As requested, we did not obtain written agency comments on this report. However, we discussed our findings with agency officials and have included their comments where appropriate.

Unless you announce the contents of this report earlier, we plan no further distribution of it for 30 days from its issue date. At that time, we will send copies to the Chairmen of the Senate and House Committees on Armed Services and on Appropriations and the Senate Committee on Governmental Affairs; the Director of the Office of Management and Budget; and the Secretaries of Defense and the Army. We will also provide copies to others upon request.

Please contact me at (202) 275-4141 if you or your staff have any questions. The major contributors to this report are listed in appendix V.

Sincerely yours,



Henry L. Hinton, Jr.
Director, Army Issues

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Abbreviations

BCS	Boeing Computer Services
CSC	Computer Sciences Corporation
GAO	General Accounting Office
GSBCA	General Services Administration Board of Contract Appeals
RCAS	Reserve Component Automation System
SSAC	Source Selection Advisory Council
SSEB	Source Selection Evaluation Board

Answers to Questions in the Request Letter

In their request letter, the Chairman and the Ranking Minority Member of the House Government Operations Committee asked us to address specific questions. These questions and our answers are as follows:

1. Were the Army's acquisition and source selection plans for RCAS [Reserve Component Automation System] suitable for an acquisition of RCAS's scope and type?

According to the Army's estimate, the RCAS was expected to cost an estimated \$1.65 billion and to integrate over 10,000 reserve component units at over 5,000 locations. The Army's acquisition strategy for the RCAS, as mandated by the fiscal year 1988 Defense Appropriations Act and congressional instructions, was to follow the Office of Management and Budget Circular A-109 for major systems acquisition. This strategy included developing an acquisition plan for this competitively negotiated contract. The plan provided for (1) describing the RCAS's needs in functional terms and letting the contractors decide what specific hardware/software could most efficiently meet them, (2) asking several contractors to develop alternative designs for the RCAS, and (3) having competitive demonstrations of the alternate approaches as part of the selection process for awarding the remaining portions of the contract to one prime contractor.

Considering the system's size, complexity, and cost, the acquisition strategy was appropriate and consistent with Circular A-109.

2. Was cost or price a source selection factor in the RCAS solicitation? If so, of what relative value was cost or price among the source selection factors?

The five evaluation factors were described in the Request for Proposals and were listed in order of relative importance. These five factors were (1) mission suitability, (2) technical, (3) logistics, (4) management, and (5) cost. The first four factors together were to be assigned more importance than the cost factor. None of the factors was assigned a precise numerical weight.

3. What was the proposed cost or price of each of the proposals received?

The two contractors' proposed costs consisted of (1) contract costs and (2) estimates of what it would cost the Army to use their systems. After reviewing the proposals' costs for completeness and realism, the Army found and corrected several errors. Based on these corrections, the

life-cycle costs were estimated at \$1.821 billion for Computer Sciences Corporation (CSC) and \$1.802 billion for Boeing Computer Services (BCS), about \$19 million lower. However, during the protest process, several other corrections were made to CSC's cost estimate, and CSC's costs were reduced to \$1.706 billion, about \$96 million lower than BCS's. The General Services Administration Board of Contract Appeals (GSBCA) did not find errors in BCS's proposal. (See app. III.)

4. How did the Source Selection Authority take cost or price into consideration in deciding to award to BCS?

The Source Selection Authority stated that he had considered cost in the RCAS award decision. He was repeatedly briefed on cost by both the Source Selection Evaluation Board (SSEB) and the Source Selection Advisory Council (SSAC). The SSAC prepared normalization costs for consideration by the Source Selection Authority. These costs represented the upgrades necessary for the CSC proposal to portray approximately the same level of technological capability as the proposal from BCS.

The Source Selection Authority had the benefit of the SSAC analysis report, which evaluated the two proposals in terms of each evaluation factor—including cost. In his decision letter, the Source Selection Authority stated that, although BCS's total life-cycle cost was greater, based on his cost/noncost trade-off analysis, the difference in cost was more than offset by the technical advantages of the proposal.

5. Did the Army perform a comparative analysis of the competing proposals prior to award which fairly reflected the relative strengths and weaknesses of each proposal? If so, did the analysis adequately support the Army's conclusions?

During the proposal evaluation process, the Army analyzed how well each contractor's proposal met the Request for Proposals' technical requirements and the relative merits of each proposed system when compared to the other. The Army's conclusions on the strengths and weaknesses of each proposal were justified by appropriate analyses. On the basis of our review, we see no reason to question the analyses or conclusions drawn from the analyses.

6. Describe in specific detail how the Source Selection Evaluation Board performed its functions.

Members of the SSEB were divided into four noncost factor panels that evaluated the proposals on how well each contractor met the Request for Proposals' requirements, the evaluation criteria, and standards. The SSEB did not compare the two contractor proposals to each other. It developed ratings and risk assessments for subfactors and factors. A separate panel evaluated life-cycle costs for accuracy and realism; no evaluators other than those on the cost panel had access to cost information. The SSEB prepared a report for the SSAC, which provided detailed justification for its evaluation; a copy of this report was provided to the Source Selection Authority.

7. Describe in specific detail how the Source Selection Advisory Council performed its functions.

The SSAC prepared a report for the Source Selection Authority. The report detailed the SSAC's justification for its evaluation of how well each proposal met the Request for Proposals' requirements. The SSAC's analyses began with a review of the SSEB's work and added to this data (1) the contractor costs, (2) a comparison of the two proposals' technical capabilities, (3) visits to the competitive demonstrations, (4) meetings and briefings, and (5) other information.

8. Considering the source selection methodology used, after all the proposals were scored as to technical merit and cost, would it have been possible for a neutral observer to select the apparent winner solely by reviewing the scores of the Source Selection Evaluation Board, or was the process imbued with such "flexibility" that award could have been made, wholly within the limits of the solicitation, to virtually any competitor?

The mandated A-109 acquisition strategy did not provide for the selection of the winning proposal based solely on the work of the SSEB. The Source Selection Authority selected the RCAS prime contractor based on an analysis of all available information, including the SSEB's report, the SSAC's report, the competitive demonstrations, and briefings on cost and technical matters. Neither the SSEB nor the SSAC made award recommendations to the Source Selection Authority. Further, the Source Selection Authority would not be bound by any positions taken by the SSEB or SSAC. The Source Selection Authority's award decision was his alone, but the decision was

required to be consistent with the Request for Proposals, and he was required to justify his decision in writing.

The scores resulting from the evaluation of proposals in this acquisition are in part subjective. As such, they are not a totally objective measure of the relative merits of the proposals and are intended merely as a guide to the Source Selection Authority. In an acquisition of this magnitude, the Source Selection Authority would normally go behind the evaluation scores to assess the significance of the differences as part of the decisionmaking process—the Source Selection Authority did that in this case. Given the relative comparability of the total adjusted life-cycle costs in this particular acquisition and the substantial technical superiority of the BCS proposal, however, it is probable that a neutral observer would have reached the same result as did the Source Selection Authority.

9. How did the Army determine that it was in the best interest of the government to make award to the highest cost offeror?

The Army followed the Source Selection Plan's required method of awarding the RCAS contract to the contractor having the best combination of technical capability and life-cycle cost. The plan required a documented analysis of all evaluations and instructed the evaluators to give technical capability more importance than life-cycle cost. The Source Selection Authority determined that BCS's proposed system—which had a higher cost and superior technical capability—offered the greatest value to the Army.

10. How was the proposal of BCS more advantageous to the Government; i.e., what will the Government get for the extra money to be paid to BCS? What specific advantages did the Army find in the BCS proposal which justified the expenditure of additional hundreds of millions of dollars?

We evaluated the technical requirements in the RCAS Request for Proposals and compared the two proposals against the technical criteria to determine whether the contractors met these requirements. These criteria included the technical specifications, the statement of work, and the functional description. We evaluated specific technical system design issues such as (1) adherence to stated national and international computer and communications standards, (2) computer processors and chip technology, (3) communications interoperability capabilities, (4) system marketability and expansion potential, and (5) software products offered. Additional input to the technical evaluation came from interviews with key Army, BCS,

and CSC officials and computer experts at the National Institute of Standards and Technology.

On the basis of our evaluation, we agree with the Army's conclusions that BCS's proposal (1) was significantly superior to CSC's in addressing the mission suitability and technical factor requirements; (2) described a system that was more user friendly (for example, the system includes an exact replication of the Army's forms on the computer screen); and (3) described a far better architecture for facilitating future technology insertions. In addition, we found that BCS had properly addressed the functional requirements stated in the Request for Proposals, which called for using the latest commercially available computer technology, such as graphical user interfaces and on-screen windows.

11. Was the RCAS award to BCS, at hundreds of millions of dollars higher than the runner-up offeror, "most advantageous to the United States, considering only cost or price and the other factors included in the solicitation," as required by the Competition in Contracting Act?

We found no basis on which to object to the Army's award decision. The Army complied with applicable laws and regulations in conducting this acquisition, and on the basis of our analysis of the Army's evaluation of the proposals, we believe the Army properly exercised its discretion when it determined that the superiority of BCS's offer would be worth more over the 12-year life of the program than the lower cost advantage of CSC's offer. The Request for Proposals clearly emphasized the importance of technical merit over cost considerations.

12. Did the Army perform any further comparative analyses after award to justify its "best value" determination? If so, did these analyses adequately support the Army's award decision?

Because the Army's evaluation and award were done in accordance with the Request for Proposals' requirements and were adequately justified, there was no need for any post-award analyses. However, as part of the bid protest, the Army did have a private company prepare an evaluation of the value derived from the Army's acceptance of BCS's system, as opposed to CSC's, after the award was made. This analysis supported the award decision.

Chronology of Events in the RCAS Acquisition

Date	Event
December 8, 1989	RCAS source selection plan approved.
January 5, 1990	Request for Proposals for the RCAS released.
April 30, 1990	Proposals received from General Dynamics Corporation, CSC, and BCS.
September 28, 1990	CSC and BCS chosen to compete for the prime contract award.
March 3 through April 27, 1991	Competitive demonstrations made by both contractors.
July 22 through August 26, 1991	Negotiations between Army and contractors take place.
August 26, 1991	Best and final offers received from contractors.
September 18-19, 1991	SSEB's final briefing given to the SSAC; SSEB disbanded.
September 23, 1991	SSAC's final briefing given to the Source Selection Authority.
September 24-27, 1991	SSAC and SSEB reports reviewed several times by the Source Selection Authority.
September 27, 1991	BCS selected by Source Selection Authority as prime contractor.
October 1, 1991	Effective date of RCAS contract.
October 3, 1991	CSC briefed by Army on why it lost.
October 7, 1991	Bid protest filed by CSC with GSBCA.
December 30, 1991	Protest denied by GSBCA.

Life-Cycle Cost Estimates With Adjustments and Corrections by the Army, the SSAC, and the GSBCA

Dollars in millions				
Cost category	BCS	CSC	Dollar Difference	Percent Difference
Contract cost	\$1,567.4	\$1,181.7		
Government's estimated cost	280.3	177.0		
Total bid life-cycle cost	1,847.7	1,358.7	+\$489.0	+35.99
Army's adjustments				
Electric power	-53.4	0		
Paper use	+7.6	+53.2		
FTS-2000 charge	0	-7.6		
Rounding error	0	+4.9		
Local communication	0	+45.6		
Total adjustments	-45.8	+96.1		
Adjusted bid life-cycle cost	1,801.9	1,454.8	+347.1	+23.86
Normalization costs				
Technology upgrade	0	+250.0		
Added value hardware	0	+43.0		
Hardware maintenance	0	+73.0		
Total normalization	0	+366.0		
Total adjusted life-cycle cost	1,801.9	1,820.8	-18.9	-1.04
GSBCA corrections				
Paper use	0	-41.9		
Hardware maintenance	0	-73.0		
Total corrections	0	-114.9		
GSBCA adjusted life-cycle cost	1,801.9	1,705.9	+96.0	+5.33
GAO correction				+0.30
Final adjusted life-cycle cost	\$1,801.9	\$1,705.9	+\$96.0	+5.63

*The GSBCA judge's decision incorrectly divided the dollar difference by the BCS total cost rather than CSC's. This yielded a percentage difference of +5.33 percent. GAO has corrected this figure by 0.30 percent.

Source: GSBCA decision on CSC protest of RCAS contract award.

Differences Between the SSEB and SSAC Ratings and Risk Assessments

The SSEB and the SSAC ratings for both contractors were the same for all the evaluative factors—except for mission suitability. BCS's mission suitability factor was rated yellow by the SSEB and green by the SSAC; CSC's received the opposite ratings—green from the SSEB and yellow from the SSAC. The differences were evident in the groups' evaluations of BCS's training and deployment and acceptance subfactors and CSC's training, functionality, and personnel subfactors.

In assessing the risk involved in the BCS proposal, the SSEB and the SSAC differed on the security subfactor of the technical factor and the various subfactors of the logistics factor. On both of these subfactors, the SSAC judged the risk to be at a lower level than the SSEB.

Rating of BCS's Training Subfactor

The SSEB rated BCS's training subfactor as yellow because it was concerned about the lack of on-site training supervision. BCS proposed to provide computer-based training with only 5 days of classroom training to command instructors. The SSEB did not believe that this approach could produce adequately trained users during initial fielding, given the large number of personnel using the RCAS for the first time. The SSEB believed that cost overruns and slippages in the fielding schedule could result because it envisioned (1) too many problems and questions arising for the help desk (contractor experts available by phone at all times) and command instructors to handle during initial fielding and (2) the probable need for contractor personnel to make visits to RCAS sites to retrain command instructors.

The SSAC members judged that BCS's training approach was commonly used, cost-effective, and widely accepted. It believed that trained instructors, combined with the help desk and computer-based training, fully met the requirements.

Rating of BCS's Deployment and Acceptance Subfactor

The SSEB rated BCS's deployment and acceptance subfactor yellow because of its proposed reliance on the RCAS users to install equipment and load data bases. The SSEB was concerned about BCS's optimistic evaluation of the computer knowledge of the users at reserve component sites—especially smaller sites whose personnel might have had little experience with automation. If difficulties arose, waiting for assistance from a contractor installation team could significantly delay fielding and slow down site operations.

The SSAC believed that BCS's approach was not only satisfactory and cost-effective, but fully met the requirements of this subfactor. BCS proposed to mark components and prepare assembly instructions to facilitate equipment installation. The SSAC believed that since the users would have assistance from trained instructors as well as access to the help desk, there would be no problems with installing the equipment.

Rating of CSC's Training Subfactor

The SSEB rated CSC's training subfactor green because it tailored training to the needs of the individual soldier and included a training facilitator on the contractor's fielding team. In addition, a great deal of the training was to take place at the soldiers' home stations.

The SSAC determined that CSC's proposed training lacked adequate funding. In addition, the SSAC found that no funding had been included for classroom training during fiscal years 1995 through 2002. However, during its bid protest, CSC contested this point. The GSBGA found the SSAC to be in error; CSC had properly budgeted resources for its classroom training through the entire contract life cycle.

Rating of CSC's Functionality Subfactor

According to the SSEB, CSC's proposal was rated green due to its ability to perform various functions such as mobilization planning and unit administration. However, the SSAC believed that CSC's technical approach was limited in that (1) the majority of its proposed terminals could not use windows on the screen, (2) it proposed the use of more than one keyboard configuration, and (3) the system could not electronically transfer files to other Army systems. These problems would have, in the SSAC's opinion, adversely affected the users' acceptance of the system.

Rating of CSC's Personnel Subfactor

The SSEB rated the Manpower and Personnel Integration subfactor green because CSC's proposal demonstrated an understanding of the importance of human factor engineering with regard to hardware, software, and telecommunications components. The SSAC, however, reached the opposite conclusion. It recognized that CSC's proposed system could not always depict Army forms on the computer screen and offered inconsistent keyboard functions; that is, different keys performed different functions, depending upon the objective of the user. Consequently, the SSAC concluded that these deficiencies indicated inadequate human factor engineering, which could limit user acceptance.

Risk Assessment of the Security Subfactor

The SSEB assessed BCS's technical factor risk as high, while the SSAC concluded that it was moderate. The difference in the assessments concerned the security subfactor. For example, the SSEB concluded that some of BCS's proposed hardware and software would probably require replacement to achieve the required security level of trust.

The SSAC assessed the risk for BCS's security approach as moderate because (1) BCS had recently obtained a governmental validation of a multilevel secure local area network at a higher level of security; (2) there was a reasonable probability that technology would solve the concern in reaching the required level of security; and (3) security was the fourth-ranked subfactor, and its high-risk assessment should not have reduced the entire factor's assessment.

Risk Assessment of the Logistics Factor

The SSEB and the SSAC differed on their risk assessment of BCS's logistics factor. The SSEB assessed BCS's logistics factor as high risk; the SSAC assessed the risk as moderate. The SSEB considered the risk to be high because BCS (1) lacked Integrated Logistics Support assimilation within the organization, resulting in a high potential for poor quality deliverables and schedule slippage; (2) planned to begin maintenance with an inexperienced staff, which could result in degraded maintenance performance; and (3) intended to involve users extensively in the maintenance process, which could result in additional government liability for damage done by the user in unsuccessful attempts to follow instructions from the help desk.

The SSAC believed that BCS's risk was moderate because (1) it had helped pioneer Integrated Logistics Support, (2) it had performed successfully on many other large-scale projects, and (3) its maintenance approach was cost-effective and did not require much technical sophistication.

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