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Comptroller General
of the United States

United States Government Accountability Office
Washington, DC 20548

Decision

Matter of: Science Applications International Corporation

File: B-405612; B-405612.2; B-405612.3

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DIGEST

Protest challenging an agency's evaluation of proposals is denied where agency's evaluation was reasonable and in accordance with the evaluation criteria.

DECISION

Science Applications International Corporation (SAIC), of McLean, Virginia, protests the rejection of its proposal under request for proposals (RFP) No. W56HZV-11-R-0001, issued by the Department of the Army, Tank-Automotive & Armaments Command, for the technology development phase of the Ground Combat Vehicle/Infantry Fighting Vehicle (GCV/IFV) program. The Army awarded contracts to General Dynamics Land Systems, Inc. (GDLS), of Sterling Heights, Michigan, and BAE Systems Land and Armaments, L.P., of Arlington, Virginia.

We deny the protest.

BACKGROUND

The Army's GCV program is intended to modernize the current ground combat vehicle fleet, replacing a portion of the agency's current Bradley Infantry Fighting Vehicles. See *Defense Acquisition: Future Ground-Based Vehicles and Network Initiatives Face Development and Funding Challenges*, GAO-12-181T, Oct. 26, 2011, at 2. Specifically, the Army seeks the development and production of the next-generation combat vehicle, which is intended to protect military personnel from evolving enemy threats, such as improvised explosive devices (IEDs), rocket-propelled grenades (RPGs), and [deleted]. To this end, the agency has established a three-phased approach to the GCV program: technology development; engineering and manufacturing development; and production and deployment.

The RFP, issued on November 30, 2010, provided for the award of up to three fixed-price incentive-fee contracts for the 24-month technology development phase. RFP at 8-9. Offerors were expected to utilize mature, low-risk technologies, and were instructed to identify their approaches to maximize the inclusion of mature technologies selected, giving consideration to any modifications necessary for effective integration of all subsystems and components. Id. at 8. The RFP identified the following four primary imperatives: force protection (achieving a threshold level of protection for all vehicle occupants against the threats identified in a classified annex of the performance specifications); capacity (a vehicle crew and fully-equipped nine-soldier infantry squad); full spectrum (a versatile platform able to adapt and/or enhance capabilities through configuration changes); and timing (delivery and acceptance of the first production vehicle within seven years of the award of the technology development contracts). Id.

Detailed specifications were provided that identified performance requirements (called ASPECs). See Agency Report (AR), Tab 12-15 at 13-212, GCV/IFV Performance Specification, at 13-212. Among other things, offerors were informed that the GCV must be capable of operating effectively, employing weapon systems, and rapidly maneuvering during [deleted]. In full combat configuration, the vehicle must be capable of carrying an infantry squad (nine soldiers with individual equipment), equipped with clothing for any season. In addition, the vehicle must be able to move, shoot, communicate, detect, and protect crew and critical components under most land-surface environments. See id. at 2. The performance requirements were divided into three tiers: tier 1 (requirements that must be met); tier 2 (requirements for which the offeror could propose less than the threshold requirement but for which the full requirement could not be deferred to a future increment);[1] and tier 3 (requirements for which the offeror could fully defer to a future increment). AR, Tab 12-42, Performance Requirement Tiers.

[1] Offerors were informed that, with respect to the tier 2 requirements, where minimum required sub-threshold performance was identified, offerors must satisfy (continued...)

Offerors were informed that awards would be made on a best-value basis, considering the following evaluation factors in descending order of importance: technical, schedule, price, past performance, and small business participation.[2] RFP at 91. The RFP identified the following three subfactors under the technical factor: integrated design; technical approach; and unit manufacturing cost. The integrated design subfactor was stated to be more important than either the technical approach or unit manufacturing cost subfactors, which were stated to be of equal weight. With respect to the unit manufacturing cost subfactor, offerors were informed that the agency would evaluate the affordability of offerors' vehicle design concepts by comparing their proposed estimate for the unit manufacturing cost with the agency's estimate for the unit manufacturing cost ($9 to $10.5 million). Id. at 72, 93.

The agency received proposals from SAIC, BAE, and GDLS. SAIC, which had formed a consortium called "Team Full Spectrum" with Boeing and two German firms, Krauss Maffei Wegman GmbH & Co. and Rheinmetall Landsystem GmbH, proposed to adapt an already-existing IFV chassis and hull from a German program to develop the PUMA infantry fighting vehicle. See SAIC's Consolidated Initial and Supp. Protests, at 2, 12-13.

The initial proposals were evaluated by the agency's source selection evaluation board (SSEB), and written discussions were conducted with each offeror. The Army issued nearly three hundred written items for discussion (IFD) to each offeror, identifying deficiencies, significant weaknesses, weaknesses, and risks in the proposals. See AR at 6; see also, e.g., AR, Tab 12-13, SAIC IFD Exchange Report. The agency also issued discussion letters to the offerors, in which the agency identified significant weaknesses. In this regard, the Army informed SAIC that the agency had evaluated a number of significant weaknesses under the integrated design subfactor and the schedule factor, the combination of which increased the risk of unsuccessful contact performance to an unacceptable level and was therefore considered a deficiency. AR, Tab 6-38, Discussion Letter to SAIC. Specifically, the agency identified 20 significant weaknesses and informed SAIC that it was "of utmost importance" for the firm to address them, and that a failure to do so

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(...continued)
the identified sub-threshold requirement. AR, Tab 12-42, Performance Requirement Tiers, at 1.

[2] Offerors were informed that proposals requesting funding in excess of $450 million for the technology development phase would be considered unaffordable and would not be considered for award. RFP at 92.

adequately would result in SAIC's proposal being found ineligible for award.[3] Id. at 3.

Following the offerors' responses to the agency's IFDs and discussion letters, the Army requested final proposal revisions (FPRs). The agency's FPR request identified ten significant weaknesses that remained in SAIC's proposal following discussions. The Army cautioned SAIC that these remaining significant weaknesses resulted in a "very high risk" rating for SAIC's proposal under the integrated design subfactor, and a "high risk" rating under the schedule factor, which could preclude the firm from receiving an award if not sufficiently mitigated.[4] See AR, Tab 6-22, SAIC FPR Request, at 1.

The SSEB's evaluation of FPRs was presented to the source selection authority (SSA) in briefing slides. See AR, Tab 11-1, SSA Decision Briefing. The offerors' FPRs were evaluated as follows:

	BAE	GDLS	SAIC
Technical	Moderate Risk	Moderate Risk	High Risk
Integrated design	Moderate Risk	Moderate Risk	High Risk
Technical approach	Moderate Risk	Moderate Risk	Moderate Risk
Unit mfg. cost	Moderate Risk	Low Risk	High Risk
Schedule	Moderate Risk	Low Risk	High Risk
Price	$449,964,969	$439,713,950	$449,977,298
Past performance	Adequate	Adequate	Adequate
Small business part.	Adequate	Poor	Excellent

Id. at 4.

With respect to SAIC, the Army found that, although the firm's FPR presented some strengths, it also had four significant weaknesses and numerous other weaknesses. Specifically, under the most important subfactor, integrated design, the agency found that SAIC had two significant weaknesses and 19 other weaknesses, which caused the agency to doubt that SAIC could satisfy the contractual requirements within the required schedule, and which resulted in a high risk rating under this subfactor. AR, Tab 11-1, SSA Decision Briefing, at 249, 251-54. The two significant

[3] The Army and SAIC also had a number of teleconferences concerning the agency's discussion letter to the firm.

[4] The FPR request letter also included a document describing the status of each of the 10 remaining significant weaknesses in SAIC's proposal, listing the concern that had been raised, as well as SAIC's response. AR, Tab 6-37, Status of SAIC Significant Weaknesses.

weaknesses under this subfactor were that SAIC's active protection system (APS) approach would not likely meet the requirements for force protection from [deleted] and that its APS approach lacked credible data substantiating its performance assertions.[5] Id. at 251. The 19 other weaknesses covered a range of tier 1 force protection, "MANPRINT" (that is, manpower and personnel integration),[6] and mobility requirements. Id. at 251-54.

In contrast, the agency found that during discussions, BAE and GDLS had resolved all evaluated significant weaknesses in their proposals under the integrated design subfactor. Id. at 5-7. Both firms' proposals were assessed a moderate risk under this subfactor, reflecting the evaluators' finding that, although the firms' proposals had weaknesses, the firms had effectively substantiated their integrated design approaches. The evaluators also concluded that both firms had credibly shown they were capable of meeting all tier 1 requirements and of performing all of the tier 2 requirements they proposed. The evaluators concluded in this regard that the evaluated weaknesses were offset by evaluated strengths and credible integrated designs. See id. at 20, 144.

SAIC's proposal was also evaluated as high risk under the unit manufacturing cost subfactor. SAIC proposed a unit manufacturing cost estimate of [deleted] million, as compared to BAE's estimate of [deleted] million and GDLS's estimate of [deleted] million. AR at 3. The agency had very low confidence that SAIC's unit manufacturing cost would remain below the agency's estimate of $10.5 million. Id.

SAIC's high risk rating under the schedule factor reflected the evaluators' determination that SAIC had two significant weaknesses and a number of other weaknesses under this factor. Specifically, the evaluators noted as one significant weakness that SAIC in its FPR included unexplained "hard constraints" (predetermined dates that override date calculations by scheduling tools) and "negative float" (that is, tasks that it would not accomplish within the stated time). The other significant weakness was that SAIC's integrated master schedule included a number of level-of-effort activities, contrary to the RFP's instructions.[7] See id. at 4; AR, Tab 11-1, SSA Decision Briefing, at 350.

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[5] APS refers to an approach to defeating threats identified in the RFP's ASPEC-1925 performance requirements before the threat reaches the vehicle.

[6] MANPRINT essentially focuses on the integration of the solider with the vehicle and encompasses such considerations as comfort and safety. RFP, Statement of Work, at 17.

[7] Offerors were specifically instructed not to include level-of-effort activities in their proposed integrated master schedules. See RFP at 73.

The SSA determined that he would award only two technology development contracts--to BAE and GDLS. AR, Tab 11-2, Source Selection Decision, at 12-13. In deciding not to award a third contract to SAIC, the SSA concluded that there were clear and meaningful differences between the proposals and that SAIC's proposal did not represent the best value to the government. In his decision, the SSA noted BAE's and GDLS's lower risk ratings compared to SAIC's high risk under the integrated design and unit manufacturing cost subfactors. Id. at 9. The SSA also noted SAIC's evaluated higher risk rating under the schedule factor and found that SAIC's evaluated risk indicated that the firm may be unable to manage and execute the contract to achieve contractual requirements. Id. at 11.

Awards were made to BAE and GDLS, and, following a debriefing, SAIC protested to our Office. Performance of the contracts has been stayed pending our decision.

DISCUSSION

In its protest, which was supplemented twice, SAIC challenges numerous aspects of the agency's evaluation of proposals.[8] The crux of SAIC's challenge to the agency's evaluation of its proposal as high risk under the integrated design subfactor and schedule factor is that the Army held its proposal to a more exacting standard than applied to the two awardees' proposals. SAIC emphasizes that its proposed vehicle design is based upon an existing vehicle, the German PUMA infantry combat vehicle. In this regard, SAIC states that the PUMA vehicle "has already been produced and presents a proven platform-level design." Consolidated Initial and Supp. Protests, at 2. SAIC argues that, in contrast, the awardees offered "ground-up vehicles that were not based upon previous proven designs," using subsystem components that lacked proven capability. See id.

The Army responds that its evaluation accurately reflects the meaningful differences in the offers. With respect to the claim that SAIC's approach should have been evaluated as presenting lower risk than BAE's and GDLS's, because it was based on a vehicle already in production, the Army notes that SAIC's proposed vehicle would require a substantial re-design effort to adapt it to accommodate more soldiers and to meet other RFP requirements. The Army also argued that SAIC failed to provide substantiating data to credibly demonstrate that its approach could meet the RFP requirements.

[8] In its initial and first supplemental protest, SAIC argued that the Army's evaluation of weaknesses in SAIC's proposal under the technical factor was inconsistent with the RFP requirements. The Army addressed these arguments in its report, and SAIC in its comments does not respond to the Army's explanations, other than to state that it was re-alleging its arguments. SAIC's Comments to the Supp. AR, at 2. Given SAIC's failure to rebut the agency's explanations, we find that these protest allegations are without merit.

In this regard, the record shows that, while SAIC broadly challenges the evaluation of its proposal, it does not dispute numerous evaluated weaknesses in its proposal. Examples of these weaknesses include a lack of test data to substantiate the performance of SAIC's armor design versus a [deleted] threat; the failure of its armored hatch design to clearly demonstrate that it would protect the crew from [deleted] threats; and an APS approach that may not meet [deleted] performance requirements. Other weaknesses include seating system integration problems, with possible increased risk of injury from underbody threats; risk of toxic fumes being allowed into the crew compartment, caused by placement of the battery pack; and various hazards inhibiting egress to the rear of the GCV. In addition, there were various risks assessed with regard to integrated design performance, such as possible insufficiency of the proposed auxiliary power cooling unit and ballistic grilles, necessary armor weight increase and structural weight increases, and weight increases that may be caused by main ammunition compartment design efforts.

In reviewing protests challenging the evaluation of proposals, we do not conduct a new evaluation or substitute our judgment for that of the agency, but examine the record to determine whether the agency's judgment was reasonable and in accord with the RFP evaluation criteria. Abt Assocs., Inc., B-237060.2, Feb. 26, 1990, 90-1 CPD ¶ 223 at 4. Our Office affords particular deference to the technical expertise of agency personnel regarding judgments that involve matters of human life and safety. PEMCO World Air Servs., B-284240.3 et al., Mar. 27, 2000, 2000 CPD ¶ 71 at 7. A protester's disagreement with the agency's judgment concerning the adequacy of its proposal is not sufficient to establish that the agency acted unreasonably. Realty Executives, B-237537, Feb. 16, 1990, 90-1 CPD ¶ 288 at 3.

Here, we find, as explained below, that the agency's evaluation was reasonable and even-handed. Although we do not specifically address all of SAIC's numerous arguments, we have fully considered all of them and find that they afford no basis to question the agency's selection decision here.

Integrated Design Subfactor

SAIC challenges the Army's assessment of its proposal as high risk under the integrated design subfactor, under which GLDS's and BAE's proposals were assessed as moderate risk.

As noted above, SAIC's high risk rating was based upon the Army's assessment that the protester's FPR had 2 significant weaknesses and 19 other weaknesses under this subfactor. The two significant weaknesses concerned SAIC's failure to demonstrate that it would meet tier 1 force protection requirements with respect to defending against [deleted], and to provide credible data substantiating its APS approach. AR, Tab 11-1, SSA Decision Briefing, at 251-54. One of the 19 other weaknesses assessed in SAIC's proposal was that SAIC had failed, despite repeated discussions, to substantiate that its proposed [deleted] would meet the vehicle's underbody protection requirements. Id. at 252.

The crux of SAIC's arguments is not that the agency unreasonably assessed weaknesses in its approach but that the Army applied a more exacting or onerous standard in reviewing SAIC's evaluated weaknesses, as compared to the evaluated weaknesses in BAE's and GDLS's proposals under this subfactor. See SAIC's Comments and 2nd Supp. Protest at 6 n. 1. Thus, by way of illustration, SAIC argues that the significant weaknesses identified in its proposal were also present in the awardees' proposals, but the Army did not consider the awardees' evaluated weaknesses to be significant. For example, the protester states that the Army assessed as only a weakness that both awardees' proposals' "APS approach may not meet the [deleted] requirement," see AR, Tab 11-1, SSA Decision Briefing, at 23, 147, while the same weakness was assessed as significant in the evaluation of SAIC's proposal.

The Army responds that, although it had concerns with all three offerors' force protection solutions, these concerns were not identical. Supp. AR, at 7. More specifically, the agency explains that SAIC's assessed significant weaknesses reflected its failure to provide substantiating data to support its performance claims.[9] With respect to the agency's concerns with the offerors' ability to defend against [deleted] threats, the agency found that SAIC's APS approach "will not likely meet the [deleted] requirement," which resulted in the agency's assessment of a significant weakness. In contrast, the agency found that BAE's and GDLS's APS approaches "may" not meet the same requirement, which resulted in the assessment of a weakness in their proposals. See AR, Tab 11-1, SSA Decision Briefing, at 42, 165, and 273.

The record shows that the differing assessments of the severity of the offerors' weaknesses and risk ratings reflected meaningful differences between the offerors' APS approaches and substantiating data. SAIC's proposed force protection approach is based upon the [deleted] system, which is designed to [deleted] to defeat threats [deleted]. See AR, Tab 5-8, SAIC Integrated Design Subfactor Evaluation, at 34. The Army found that because threats are defeated [deleted], "the [deleted] is critical in determining whether or not there is enough [deleted] to defeat all threats." Id. Although this was raised several times in discussions, SAIC did not show that its approach would satisfactorily defeat threats from [deleted]. In this regard, SAIC's substantiating data indicated that its APS reaction time would not be fast enough to defeat [deleted] threats. Moreover, SAIC informed the agency that, although it would further study improving its system's reaction time, "analyses to date show some reduction [in the engagement timeline] is possible but not . . . enough to compensate for the greater velocity of an [deleted] round." See AR, Tab 6-35, SAIC's Response to Status of Significant Weaknesses, at 53. Based upon this, the evaluators found "very

[9] Offerors were required to provide data substantiating the force protection approach being proposed. RFP at 70.

low confidence" that SAIC would be able to design its system to reduce the timeline enough to meet requirements. AR, 11-1, SSA Decision Briefing, at 273.

In contrast, with respect to GDLS's force protection approach (which is based on a [deleted] system), the Army states that although it did have concerns about GDLS's approach, GDLS submitted additional information in response to IFDs, including a timeline indicating the system is likely to defeat [deleted] with additional proposed design changes. Supp. AR at 11. The agency also considered GDLS's plans to [deleted] during the technology development phase, including updates to the [deleted] software for [deleted]. The agency concluded that, although a weakness remained in GDLS's approach based on the number of design changes that would be anticipated and the lack of any cushion in the timeline to implement those changes, GDLS's response to the Army's concerns in this area provided confidence in the firm's ultimate ability to meet this requirement. Id.

BAE proposed a different force protection approach, known as the [deleted] APS, which does not [deleted], as do SAIC's and GDLS's systems. BAE's approach was not considered to have the same [deleted]. The weakness assessed in BAE's approach reflected that its APS had not been designed to address [deleted] threats and had not yet been tested against those threats. AR, Tab 11-1, SSA Decision Briefing, at 42. Nevertheless, in response to discussions, BAE submitted data showing performance against a [deleted] of the [deleted] threat, and a [deleted] for use during technology development.

We find that the record supports the Army's determination that there were meaningful differences between the offerors' proposed approaches to satisfying the force protection requirements. More specifically, the record supports the agency's judgment that SAIC had a significant force protection weakness with respect to the [deleted] threats, while BAE's and GDLS's weaknesses were not significant. Although SAIC disagrees with the agency's evaluation of the difference in the firms' evaluated weaknesses, its disagreement does not show that the agency's judgment is unreasonable.

Similarly, with respect to the second significant weakness assessed in SAIC's proposal, the record shows that, despite discussions, SAIC failed to provide data substantiating its [deleted] APS. Specifically, the Army found:

> There is no substantiating data to demonstrate that the system meets performance claims. As stated in the paragraph above, there remains a large amount of design, test and labor needed to be completed just to allow [deleted] to meet the stated performance assertions made. This, coupled with the numerous design changes and short timeframe to integrate these changes during the [technology development] phase, appreciably increase risk of SAIC credibly meeting the threshold requirement.

See AR, Tab 5-8, SAIC Integrated Design Subfactor Evaluation, at 85. In this regard, the agency found that, although SAIC claimed in its proposal that its system had demonstrated success defending against RPGs, citing tests conducted in 2008 and 2009, when asked to provide test reports, SAIC produced only the 2008 test report. That report indicated that SAIC's proposed APS had not successfully defended against RPGs or anti-tank guided missiles. Specifically, the report stated that, of seven attempted intercepts (five RPGs and two anti-tank guided missiles), not one was successful. Id. at 83.

Although SAIC complains that the agency also assessed weaknesses with respect to GDLS's and BAE's ability to defend against [deleted], the record shows that these firms provided substantiating data that indicated that the firms could ultimately meet the agency's requirements. For example, GDLS provided data for its proposed [deleted] system that substantiated its current system's ability to defeat [deleted], and proposed design changes to that system necessary to meet all aspects of the requirement here. See AR, 11-1, SSA Decision Briefing, at 165. Although the evaluators continued to assess some risk in modifying GDLS's system to defeat [deleted], they found the firm's approach to satisfying these requirements credible and the risk to be not as great as SAIC's failure to submit substantiating data. See id.; Supp. AR at 9. Similarly, the Army found with respect to BAE's proposed [deleted] APS that BAE had provided supporting data to establish the credibility of its approach and to demonstrate its ability to identify performance shortfalls prior to testing. AR, Tab 11-1, SSA Decision Briefing, at 41.

As noted above, the agency also assessed 19 other weaknesses in SAIC's proposal under the integrated design subfactor. One of the assessed weaknesses was for SAIC's proposed underbody protection design.[10] SAIC's proposed GCV was based upon the PUMA vehicle, a production vehicle used by the German military; the underbody protection was to be provided by a [deleted].

In response to discussions to substantiate that the proposed underbody [deleted] would protect the vehicle and its passengers, SAIC stated that the [deleted] was developed under the German Ministry of Defense [deleted] programs, and that the details for the [deleted] and its manufacture were classified and protected by intellectual property restrictions. AR, Tab 6-17, IFD-250 at 3. Given the Army's concerns that it was not possible to determine the actual capability of the [deleted] without knowing which materials were used and how it was constructed, the agency conducted further discussions with SAIC. See AR, TAB 7-12, SAIC Response to IFDs 017-031 at 12. SAIC informed the Army that the PUMA underbody protection element consists of [deleted] material arranged in a proprietary configuration. SAIC also responded that the information the Army was seeking was set out in a

[10] This weakness was initially evaluated to be significant, but following discussions was reduced to merely a weakness.

proprietary, classified drawing, which SAIC was not permitted to deliver. SAIC, however, offered to provide construction details to government personnel if they agreed to be bound by a non-disclosure agreement or its equivalent. Because SAIC did not provide data substantiating its underbody protection, the Army concluded that SAIC's performance in this regard was uncertain and could require substantial corrective design actions; the Army assessed a weakness against the proposal in this area. See AR, Tab 11-1, SSA Decision Briefing, at 264.

SAIC objects to the agency's assessment of a weakness with respect to underbody protection, arguing that it extended several invitations to the Army to meet with its proposal team to receive a classified briefing on the underbody solution, and to meet with German government officials to review all classified test results and simulated models. Consolidated Initial and Supp. Protests at 22. However, according to SAIC, the meeting that was proposed would have required agency personnel to travel to Germany, and--although they would have been allowed to view documents--they would not have been permitted to take notes or create an evaluation record. AR, Tab 6-19, Teleconference Memorandum, April 13, 2011. We conclude that the underbody protection weakness assessed in SAIC's proposal was reasonable, given SAIC's failure to provide data substantiating the performance of its proposed design.

With respect to other evaluated integrated design weaknesses, SAIC objects to the assignment of weaknesses with respect to satisfying MANPRINT (that is, "manpower and personnel integration") performance requirements. As explained below, we again find the Army's evaluation was reasonable.

SAIC's proposed GCV design provided for a three-person crew and a nine-person infantry squad. The Army assessed a significant weakness in SAIC's initial proposed approach under the integrated design subfactor, because of the lack of space for operation by the soldiers and crew. The most significant factor in the agency's assessment was the lack of horizontal (fore & aft) and vertical space. For example, the Army found that SAIC's design provided seatpan heights that were less than eight inches from the floor in all crew stations, in an attempt to provide sufficient interior head clearance.[11] The extremely low seats positions, the evaluators found, would place soldiers in an unnatural seated position with constricted thigh-trunk angles and would require the soldiers' legs to be extended out from the body. The agency concluded that this lack of space was detrimental to the soldiers' ability to safely

[11] In addition, the evaluators found, as a related significant weakness in the area of force protection, that SAIC's proposed head clearance was inadequate, given that SAIC's design provided less than two inches from the top of a soldier's helmet to the top of the vehicle interior. The Army found that this lack of head clearance increased the likelihood of injury from an underbody event, such as an improvised explosive device or other type of blast. AR, Tab 6-38, Discussion Letter to SAIC, at 2.

operate the vehicle, would cause fatigue over time, and was an impediment to getting in and out of the seats. AR, Tab 5-8, SAIC Integrated Design Evaluation, at 7.

Following discussions, SAIC made a number of design changes, including raising the vehicle roof by 3 inches, which allowed the driver's and commander's seat pan height to be increased to 10.7 inches, and the gunner's seatpan height to 12.4 inches. Although the evaluators found that this was an improvement, they concluded that the seat pans were still very low, and that, "given the constricted interior space envelope of the current concept, it appears unlikely that the interior volume can be further increased without significant re-engineering effort." Id. at 12. Moreover, an updated SAIC computer-aided design model, submitted in response to the Army's discussions questions, showed that leg and foot space accommodation was still a concern; the evaluators noted that the gunner's feet were now positioned under the driver's station, resulting in very limited space for the gunner's feet and lower legs. The agency concluded that this positioning increased the risk of injury to both the gunner and the driver.[12]

The evaluators noted SAIC's discussions response that it could, through additional engineering efforts related to changing the underbody armor solution, lower the walk-on floor, thereby increasing the compartment height. The evaluators found, however, that this design solution would require a significant amount of engineering effort during the technology development phase.[13] Overall, the evaluators concluded that SAIC's discussion responses had mitigated the significant weakness assigned with respect to the lack of horizontal and vertical space in the crew and squad stations. The agency concluded, however, that there were still a number of MANPRINT weaknesses associated SAIC's design, including the very low seat pan heights for crew and squad (including squad foot placement), inadequate headspace clearance in the periscope position for both the commander's and driver's stations, lack of gunner station accommodation at the screen position, and limited controls and screen adjustability resulting in lower body strike hazards for driver and commander stations. The agency concluded that these weaknesses increased risk

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[12] The evaluators expressed concern that having hard components (including soldiers' feet) underneath seats would endanger soldiers during rough terrain movement, vehicle accidents and IED events; however, they noted that repositioning the gunner's feet from under the seat would result in strike hazards to the knees and thighs. The agency did not believe, given the vehicle's tight interior space, that there was adequate horizontal space to push the gunner's seat back to allow appropriate positioning and reduce the risk of strike hazards. AR, Tab 5-8, Integrated Design Evaluation, at 21.

[13] In this regard, the record contains numerous examples where the evaluators found that SAIC had proposed design changes in response to concerns raised in discussions, but concluded that these changes would require some re-engineering effort, given the constricted space available in SAIC's proposed GCV design.

with respect to SAIC credibly meeting the MANPRINT performance requirements. Id. at 24. Although SAIC disagrees with agency's judgment in this regard, it has failed to show that the agency's judgment was unreasonable.

In sum, the record supports the reasonableness of the Army's judgment that SAIC's proposal merited a high risk rating under the integrated design subfactor, the most important subfactor under the most important evaluation factor.

Schedule Factor

SAIC also challenges the Army's assessment of its proposal as high risk under the schedule factor, under which GLDS's and BAE's proposals were assessed as low and moderate risk, respectively.

The RFP provided that the agency would assess the risk that offerors could achieve the contractual requirements at the conclusion of the technology development phase and by the time of early prototype-vehicle delivery in the engineering and manufacturing development phase. RFP at 93. Offerors were instructed to provide an integrated master schedule with a detailed plan for the initial six months of the contract, with planning packages to be used beyond the detailed plan. The RFP required that offerors explain any "hard constraints," citing as examples, an event that was required in the integrated master schedule to start or finish on (or no later than) a certain date.[14] Id. at 73. Offerors were also informed that the integrated master schedule should not include, among other things, level-of-effort activities. Id.

The Army found that, although all three offerors' schedules exhibited both strengths and weaknesses, SAIC's schedule would be negatively affected by the firm's selection of immature technologies that would require additional design, integration, and testing to meet contractual requirements. The Army also found that these time impacts were exacerbated by two significant weaknesses. AR, Tab 5-9, SAIC Schedule Evaluation, at 16; Tab 11-1, SSA Decision Briefing, at 339, 362-63. The first significant weakness, introduced in SAIC's FPR, was six unexplained hard constraints, in its proposed integrated master schedule that overrode the schedule logic and caused a significant amount of "negative float" to major program events.[15] These hard constraints involved major program events during the technology

[14] The Army explains that an integrated master schedule is made up of tasks describing the work to be performed and logic describing the order in which the work must be done. Dates for the tasks are calculated by a scheduling tool, using the schedule's logic. A hard constraint is an item in the schedule that overrides schedule logic and forces a task to have a predetermined date. AR at 75.

[15] "Negative float" on a task means that the task cannot be completed within the timeframe identified for that task in the integrated master schedule. See AR at 75.

development phase, including the preliminary design review.[16] AR, Tab 5-9, SAIC Schedule Evaluation, at 5, 15-16. The Army explains that by using hard constraints, SAIC was able to show that it would satisfy the RFP's required schedule for preliminary design review. AR at 75-76.

The second significant weakness was that, despite the RFP's admonishment, SAIC's integrated master schedule contained a substantial number of level-of-effort activities. AR, Tab 5-9, SAIC Schedule Evaluation, at 5. The evaluators noted that the inclusion of these level-of-effort tasks increased the possibility of status errors during program execution, casting doubt on the credibility of the critical path, thus making SAIC's integrated master schedule less useful as a management tool. The evaluators found that SAIC's inclusion of level-of-effort cast doubt on the credibility of its integrated master schedule. Id.

SAIC generally disagrees that assessed weaknesses for hard constraints, negative float, and unexplained level-of-effort activities in its schedule were significant weaknesses, and disputes the time impact associated with its proposed technology choices. SAIC also contends that the Army did not evaluate SAIC's, GDLS's, and BAE's schedules equally. See SAIC's Comments and 2nd Supp. Protest at 24-42; SAIC's Comments to the Supp. AR at 20-33. As explained below, we find that the agency's evaluation of SAIC's schedule was reasonable and did not reflect unequal treatment.

With respect to the significant weakness assessed because SAIC's FPR introduced unexplained hard constraints and negative float in its proposed integrated master schedule, SAIC does not dispute that its schedule in fact included unexplained hard constraints and negative float. Rather, the protester argues that hard constraints and negative float were caused by inadvertent and "obvious mistake[s]" first introduced in SAIC's FPR. SAIC contends that because its initial proposal did not contain hard constraints, the agency should have recognized that this was an error and permitted SAIC to correct the problem.[17] See, e.g., id. at 25-27. SAIC also disagrees that the inclusion of hard constraints and negative float would be materially disruptive of the firm's schedule. See id. at 28.

There is no merit to SAIC's contention that the Army should have overlooked the firm's use of hard constraints and negative float because they were inadvertently

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[16] The hard constraints were placed on six critical tasks, including RPG demonstrator delivery, mine blast demonstrator delivery, and system functional review. Supp. AR at 20-21.

[17] The Army disputes that these hard constraints could have been inadvertently included in SAIC's integrated master schedule because each hard constraint had to be manually entered using the protester's software.

included in the integrated master schedule provided with the firm's FPR. As we have often noted, it is an offeror's responsibility to submit a well-written proposal that demonstrates compliance with solicitation requirements. See Mission1st Group, Inc., B-404811.3, B-404811.6, June 2, 2011, 2011 CPD ¶ 115 at 7. Moreover, we do not agree with SAIC that the presence of unexplained hard constraints and negative float could not be reasonably viewed as materially disrupting SAIC's schedule. In this regard, the RFP specifically instructed offerors to explain any hard constraints included in their schedules, which SAIC did not do. See RFP at 73. SAIC has not shown that the Army unreasonably determined that removing hard constraints from SAIC's integrated master schedule (thus, allowing the schedule logic to determine the schedule) would result in some activities being performed approximately a year behind schedule. See AR at 76.

We also disagree with the contention that the Army was required to communicate with SAIC after the receipt of FPRs to allow the firm to change its integrated master schedule to remove the hard constraints and negative float. Although SAIC terms such communications as merely clarifications to correct an inadvertent or clerical mistake, such a communication revising or modifying the firm's proposal would have constituted discussions. See Environmental Quality Mgmt., Inc., B-402247.2, Mar. 9, 2010, 2010 CPD ¶ 75 at 6. An agency is not required to reopen discussions after receipt of final offers to permit a single offeror to demonstrate the merits of its proposal. eTouch Fed. Sys., LLC, B-404894.3, Aug. 15, 2011, 2011 CPD ¶160 at 3.

With respect to the significant weakness assessed because SAIC included level-of-effort activities in its integrated master schedule, the protester argues that the RFP did not contain any evaluation criteria concerning the number of level-of-effort activities that could be proposed, or what effect their inclusion in the proposal would have on the evaluation. This argument has no merit. As noted above, the RFP expressly instructed offerors not to include level-of-effort activities in their integrated master schedule, see RFP at 73, and offerors were informed that the agency would be assessing risk in their proposed schedules. See id. at 93. The assessment of risk reasonably includes the impact of proposing undefined level-of-effort activities.[18]

SAIC also disputes the Army's assessment that additional time would be required in SAIC's schedule to address the design deficiencies assessed during the evaluation of proposals under the integrated design subfactor. Specifically, SAIC's challenges the

[18] SAIC also complains that the Army did not inform it that the agency viewed its use of level-of-effort activities to be a significant weakness. This argument is refuted by the record, however. The agency's view that these level-of-effort activities represented a significant weakness was conveyed to SAIC at least twice during discussions. See AR, Tab 6-38, Discussion Letter to SAIC, at 3; Tab 6-37, Status of SAIC Significant Weaknesses at 7-8.

agency's judgment concerning the time required for design, integration, and testing with respect to SAIC's proposed underbody, transmission, and auxiliary power cooling unit. See SAIC's Comments and 2nd Supp. Protest at 31-35. SAIC does not, however, challenge the agency's determination of additional schedule risk associated with addressing its proposed force protection with respect to RPGs or its proposed armor. Given our decision above, finding reasonable the agency's assessment of weaknesses associated with SAIC's proposed adaptation and modification of the PUMA fighting vehicle, we view SAIC's objections to the schedule impact of correcting these weaknesses to be no more than disagreement with the agency's judgment. Such disagreement does not establish that the agency acted unreasonably. Realty Executives, supra, at 3.

SAIC also contends that its schedule was evaluated unequally compared to that of GDLS and BAE. Specifically, SAIC contends that the Army evaluated similar weaknesses and concerns in the integrated master schedules of GDLS and BAE, but gave those firms lower risk ratings under the schedule factor. See SAIC's Comments and Supp. Protest at 40-41.

The record does not support SAIC's argument that its schedule was unfairly or unequally evaluated as compared to that of GDLS and BAE. [19] Although it is true that the Army had some similar concerns and, in some instances, assessed similar weaknesses in GDLS's and BAE's proposals, SAIC's arguments ignore the totality of the weaknesses evaluated in each firm's schedule and, in particular, fail to address the impact that SAIC's two evaluated significant weaknesses had on its risk rating under this factor.

In sum, we find that the agency's evaluation of SAIC's proposal under the schedule factor as being high risk is supported by the record.

Unit Manufacturing Cost Subfactor

SAIC also challenges the agency's high risk rating of SAIC's proposal under the unit manufacturing cost subfactor.

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[19] SAIC also contends that an evaluated deficiency in BAE's integrated master schedule should have resulted in a high risk rating--especially since BAE was the only offeror assessed a deficiency in this area. See SAIC Comments and 2nd Supp. Protest at 37, citing AR, Tab 9-74, BAE Trades and TRL Writeup, at 10. We disagree. The contemporaneous evaluation record shows that the concern to which SAIC points was considered a significant weakness by the Army and that BAE addressed the agency's concerns in discussions such that the concern was considered to be a weakness. See AR, Tab 9-69, BAE Response to IFD 261; Tab 9-73, BAE Schedule Evaluation, at 9.

This subfactor concerns the anticipated per-unit cost of eventually manufacturing the GCV initial concept under a subsequent production contract. RFP at 72, 93. The RFP provided that the agency would assess the risk associated with the affordability of the offeror's GCV/IFV initial concept, in terms of whether its cost would be no more than $10.5 million.[20] As part of its risk assessment, the agency would:

> (a) Determine strengths and weaknesses associated with the completeness, credibility, and realism of the offeror's [unit manufacturing cost] estimate, and
>
> (b) Generate confidence levels and [unit manufacturing cost] values for the offeror's GCV IFV initial concept and compare it to $10.5 million. Generate [unit manufacturing cost] values for the offeror's GCV IFV initial concept and assess confidence levels that the Government generated [unit manufacturing cost] values will be at or below $10.5 million.

Id. at 93. Offerors were instructed to submit unit manufacturing cost estimates consistent with their initial concept for the GCV, and to produce information such as a summary of the basis for the estimate for each line item at level 4 of the work breakdown structure.[21] In addition, offerors were required to provide the methodology used for the cost estimate for each line item (such as reliance on expert/engineering opinion, analogy, parametric, and actual cost history), and key back-up data. Id. at 72.

In its evaluation of unit manufacturing cost, the agency assessed risk in the offerors' unit manufacturing cost estimates by assigning one of eight probability distributions to the unit manufacturing cost for each work breakdown structure element, based on the Army's assessed level of confidence that the unit manufacturing cost was

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[20] A low risk rating reflected an 80 percent or greater confidence that the offeror's evaluated unit manufacturing cost would be at or below $10.5 million; a moderate risk rating reflected a 40 to 79 percent confidence that the evaluated unit manufacturing cost would be at or below $10.5 million; and a high risk rating reflected a less than 40 percent confidence that the evaluated unit manufacturing cost would be at or below $10.5 million. See AR, Tab 5-12, SAIC Unit Manufacturing Cost Evaluation, at 1.

[21] The various work breakdown structure levels refer to the level of specificity or detail of the elements; the total system is referred to as work breakdown structure level 1, while levels 2, 3, and 4, describe project components in increasing detail.

realistically and credibly estimated, and substantiated.[22] The distributions were then rolled up into an overall uncertainty distribution for the GCV unit manufacturing cost using a process referred to as a Monte Carlo-type analysis.[23] See AR at 53.

SAIC's unit manufacturing cost estimate was [deleted] million, reporting costs for 72 level 4 work breakdown structure elements. The Army assessed SAIC's unit manufacturing cost estimate as high risk, finding that it had only a 15 percent confidence that SAIC's costs would be below the RFP's $10.5 million target level. The Army found that the protester's $[deleted] unit manufacturing cost was the highest submitted and left little margin for error before reaching the $10.5 million target. Moreover, the Army noted that "notwithstanding numerous requests for supporting data, SAIC was either unable or unwilling to provide any key back-up data for its cost estimates as required by the RFP." See Supp. AR at 33; see also AR, Tab 11-1, SSA Decision Briefing, at 337 ("SAIC [unit manufacturing cost] estimate can grow only approximately [deleted] [percent] providing little mitigation to the Integrated Design risks raised.") As a result, the Army concluded that the combination of the high estimate, numerous unresolved weaknesses, and SAIC's failure to provide supporting documentation resulted in high risk that SAIC's GCV could not be manufactured for $10.5 million or less.

SAIC protests that the Army's Monte Carlo analysis was unreasonable. In this regard, the protester contends that the record does not provide sufficient information to allow for validating the underlying bases for the agency's probability distributions. See SAIC's Comments and 2nd Supp. Protest, append. B, Statement of Cost Risk Analyst, at 8. In this regard, SAIC argues that the agency's cost model is flawed with respect to the probability distributions and the failure to provide for correlation among work breakdown structure elements. Id. at 7-8. In response, the Army disagrees that its unit manufacturing cost evaluation was unreasonable and

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[22] The eight distributions were as follows: very wide distribution; wide distribution; reasonable approximation; fair approximation; good approximation; very good approximation; extremely low; and extremely high. AR at 54.

[23] A Monte Carlo simulation is a cost risk analysis model that is generally used for quantifying the lowest and highest possible costs of weapons systems, based upon estimated costs of various components. Developed in 1946 by a mathematician who pondered the probabilities associated with winning a card game of solitaire, a Monte Carlo simulation is used to approximate the probability outcomes of multiple trials by generating random numbers. In determining the uncertainty associated with a program's point estimate, a Monte Carlo simulation randomly generates values for uncertain variables over and over to simulate a model. See The Boeing Co., B-311344 et al., June 18, 2008, 2008 CPD ¶ 114 at 62 n. 85; Cost Assessment Guide: Best Practices for Estimating and Managing Program Costs, GAO-09-3SP, March 2009, at 172.

provides the statement of its lead evaluator to explain the agency's Monte Carlo analysis. See Supp. AR, Tab 15-5, Statement of Unit Manufacturing Cost Lead Evaluator.

There has been much competing argument concerning the Army's cost model and whether confidence assessments derived from that model were reasonable. We conclude from our review of the record that, even if we accept SAIC's contentions that the Army's model is flawed, SAIC was not prejudiced.

The Army used its cost estimating model to assess a confidence level with respect to whether an offeror's estimated unit manufacturing costs would be less than the agency's $10.5 million unit cost. The agency found from this model that there was little confidence that SAIC's unit manufacturing cost would be less than the agency's target estimate. The agency also noted that SAIC's [deleted] million unit manufacturing cost estimate was only [deleted] percent less than the agency's target estimate, and that, given the design weaknesses noted in SAIC's proposal, there was also little confidence that SAIC's ultimate unit manufacturing cost would be less than $10.5 million.[24] See AR, Tab 11-1, SSA Decision Briefing, at 337; Tab 11-2, Source Selection Decision, at 6-7. We do not find from this record a reasonable possibility that SAIC's high risk rating under the unit manufacturing cost subfactor would have changed appreciably. Moreover, given SAIC's high risk ratings under the important integrated design subfactor and schedule factor, the record does not indicate a reasonable possibility that SAIC's proposal would have received an award, even if it received a moderate risk rating under the unit manufacturing cost subfactor.

CONCLUSION

In conclusion, the record shows that the Army reasonably found that SAIC's

[24] With regard to SAIC's complaint that the Army's cost model failed to provide for correlation of work breakdown structure elements, the protester's cost consultant calculated that if the agency had applied a .25 correlation in the Army's cost model, this would have only raised SAIC's confidence rating to "somewhere around 36.3%," which under the Army's evaluation methodology would continue to be high risk. If "perfect" correlation were applied, the protester's cost consultant calculated that SAIC's confidence rating would rise to "approximately 41.5%," which, under the Army's methodology, would be slightly above high risk. See SAIC's Comments and 2nd Supp. Protest, append. B, Statement of Cost Risk Analyst, at 14-15.

proposal reflected higher risk than did BAE's or GDLS's. On the basis of this difference, the Army reasonably chose not to award a third contract to SAIC.

The protest is denied.

Lynn H. Gibson
General Counsel