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Decision

Matter of: Advanced Turbine Engine Company

File: B-417324; B-417324.2

Date: May 30, 2019

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DIGEST

1. Protest challenging agency's evaluation of awardee's maintainability metrics is denied where record shows that the agency's evaluation was reasonable and consistent with the solicitation, and the protester has not shown prejudice.
2. Protest challenging agency's evaluation of awardee's proposal with respect to an engine performance and operability requirement is denied where the basis for the protester's argument is not supported by the record.
3. Protest challenging the agency's evaluation of the awardee's proposal with respect to the use of ceramic matrix composite hardware in its proposed engine is denied where the record shows the agency reasonably determined that the awardee's proposal contained sufficient information to satisfy the solicitation's requirements.
4. Protest alleging disparate treatment in the award of strengths regarding electrical integration of the engine is denied where the record shows that the agency reasonably determined that the protester's proposal did not provide the same benefits as the awardee's proposal.

5. Protest challenging the agency's evaluation of the offerors' proposed data rights is denied where the record shows the agency reasonably determined that both offerors' proposed data rights met the requirements of the solicitation.

6. Protest alleging that the agency's cost realism evaluation was incomplete because it did not consider the technical risk assessed to the awardee's technical proposal is denied where agency reasonably considered risk as part of its technical evaluation and there is nothing in the record to suggest that the agency determined that risk would affect the awardee's ability to perform at its proposed costs.

6. Protest alleging that the offerors had a materially different understanding of the solicitation requirements is denied where protest is based on fact that protester proposed more labor hours than awardee and protester has not identified a solicitation requirement that led to the disparate understanding.

7. Protest alleging misleading discussions regarding proposed labor hours is denied where record shows that the agency conducted discussions with the protester about its proposed labor hours.

DECISION

Advanced Turbine Engine Company (ATEC)¹, of Phoenix, Arizona, protests the award of an engineering and manufacturing development (EMD) contract for the improved turbine engine program (ITEP) to General Electric Aviation (GE), of Lynn, Massachusetts, under request for proposals No. W58RGZ-18-R-0058, issued by the Department of the Army, Army Materiel Command (Army). ATEC challenges multiple aspects of the agency's evaluation and source selection decision.

We deny the protest.

BACKGROUND

The ITEP seeks to produce a more powerful and fuel-efficient engine for the Black Hawk and Apache helicopter fleets. Agency Report (AR), Tab 5, Source Selection Plan (SSP) § 1.1, at 5. In particular, the Army intends to procure an "affordable 3,000 shaft horsepower engine with a reduction in fuel consumption by 13 - 25%, and decreased sustainment costs by up to 35%" compared with the current legacy engine on the helicopters. *Id.* § 1.2, at 5. ATEC and GE both have been working on designing and developing the new engines for a number of years. Prior to the award of the EMD contract, both ATEC and GE performed Technology Maturation and Risk Reduction (TMRR) contracts that led to the completion of a preliminary design review (PDR) for each company's respective engine. *Id.* Both ATEC's and GE's preliminary designs for the engine developed under the TMRR contract have been approved by the Army.

¹ ATEC is a joint venture between Honeywell International Inc. and the Pratt & Whitney division of United Technologies Corporation. Protest at 1.

For the EMD RFP, the agency solicited proposals from GE and ATEC. Id. § 1.3, at 6. The EMD contract covers the activities beyond the PDR achieved on the TMRR contract, including critical design review (CDR), engine preliminary flight rating and qualification testing, and support to aircraft qualification testing. Id. The engines that were approved under each company’s TMRR contract formed the baseline for award of the proposed engine design for the EMD contract. AR, Tab 2, RFP § L.1.1.2, at 68.

Under the EMD contract, the RFP statement of work (SOW) stated that the offerors had to “design, develop, qualify and integrate the [improved turbine engine (ITE)] to meet the requirements defined in this SOW, the threshold requirements in the System Requirements Document (SRD) . . . and the [United States Government] approved Engine Model Specification (EMS).” AR, Tab 89, SOW § 3.1, at 1. The SRD contained a number of specific performance requirements that the engine had to meet and established thresholds, and objectives in some cases, for various metrics and requirements. Contracting Officer’s Statement/Memorandum of Law (COS/MOL) at 4; see also AR, Tab 4, SRD. The EMS was an offeror-developed and government-approved document that outlined the detailed specifications that were specific to the PDR-approved engine that each offeror proposed. COS/MOL at 4. As the agency explained it, “the EMS is a baseline to which the modifications to the PDR approved engine design must be traced while proposing to meet the requirements established in the SRD at the EMD phase.” Id.

The RFP provided for award of a hybrid cost-plus-incentive-fee/fixed-price contract based on the best-value proposal. RFP §§ A-1, M.1.1, at 2, 89. The RFP identified the following factors and subfactors against which proposals would be evaluated:

Factor 1: Engineering Design and Development
Subfactor 1: Engine Design and Performance
Subfactor 2: Component Design
Subfactor 3: Platform Integration
Subfactor 4: System Test and Evaluation
Factor 2: Cost/Price Factor
Factor 3: Life Cycle Cost
Subfactor 1: Rights in Technical Data (TD), Computer Software (CS), and Computer Software Documentation (CSD)
Subfactor 2: System Design Operating and Support Costs
Factor 4: Small Business Participation

Id. §§ M.1.1.1-1.1.4, at 90-94. The four evaluation factors were listed in the chart above in descending order of importance. Id. § M.1.1(2), at 89. All non-cost/price factors, when combined, were significantly more important than the cost/price factor. Id. Under the engineering design and development factor, the engine design and performance and component design subfactors were of equal importance. Id. § M.1.1(2)(a), at 89. Both of these subfactors were individually more important than the platform integration subfactor, which in turn was more important than the system test and evaluation

subfactor. Id. Under the life cycle cost factor, the rights in TD, CS, and CSD subfactor was more important than the system design operating and support costs subfactor.² Id. § M.1.1(2)(b), at 89.

Proposals were assessed a technical rating and a technical risk rating for the engineering design and development and life cycle factors, and for the corresponding subfactors under each of these factors. RFP §§ M.1.1.1, M.1.1.3, at 90-91. The technical ratings that an offeror's proposal could receive were outstanding, good, acceptable, marginal, and unacceptable. AR, Tab 5, SSP at 61. The technical risk ratings that a proposal could receive were low, moderate, high, and unacceptable. Id.

Offerors submitted their proposals in two phases. RFP § L-15 1.1.1, at 67. Phase 1 proposals addressed the cost/price, life cycle cost, and small business participation factors. Id. Phase 2 proposals were due no later than 60 calendar days after the offerors' respective PDRs were approved by the Army under the TMRR contract, and addressed the engine design and development factor. Id. at 67-68. The agency conducted an initial evaluation of the phase 1 proposals before establishing a competitive range, which consisted of both ATEC and GE. COS/MOL at 21; see also, AR, Tab 5, SSP at 57-58. The agency then conducted discussions regarding the phase 1 proposals by issuing evaluation notices (ENs) to the offerors. COS/MOL at 21. The agency evaluated proposal revisions submitted as a result of discussions and an interim evaluation report was prepared. AR, Tab 5, SSP at 58. Once the phase 2 proposals were received, the agency conducted an evaluation of those proposals and engaged in further discussions with the offerors regarding the phase 2 proposals. Id. Offerors submitted final proposal revisions and the agency prepared a final evaluation report that combined the phase 1 and 2 evaluations. COS/MOL at 21; AR, Tab 5, SSP at 58.

To conduct the evaluation, subfactor evaluation teams assessed each proposal against the evaluation criteria and documented their findings in individual subfactor evaluation reports. Id. at 8-9; see also AR, Tab 5, SSP at 60. A technical factor lead then prepared a written evaluation for each factor that consolidated the subfactor evaluations. AR, Tab 5, SSP, at 60. Based on the individual subfactor and factor written evaluations, the source selection evaluation board (SSEB) prepared an evaluation report that identified the strengths and weaknesses, as well as technical ratings and technical risk ratings assessed to each offeror. Id. at 57-58; see also AR Tab 9, SSEB Report. The SSEB then prepared a final evaluation briefing for the source selection authority (SSA). See AR, Tab 8, SSA Final Evaluation Briefing Slides. A summary of the evaluation results is as follows:

² The relevant RFP requirements for each subfactor at issue in this protest are addressed in more detail in the discussion of the protest grounds below.

	ATEC		GE	
	Technical Rating	Technical Risk Rating	Technical Rating	Technical Risk Rating
Engineering Design and Development	Good	Low	Good	Moderate
Engine Design and Performance	Outstanding	Moderate	Good	Moderate
Component Design	Good	Low	Good	Moderate
Platform Integration	Good	Low	Outstanding	Low
System Test and Evaluation	Acceptable	Low	Acceptable	Moderate
Cost/Price³	Total Evaluated Price: \$692,601,891		Total Evaluated Price: \$529,638,957	
Life Cycle Cost	Good	Low	Good	Low
Rights in TD, CS, and CSD	Good	Low	Good	Low
System Design Operating and Support Costs	Acceptable	Low	Good	Low
Small Business Participation	Good	N/A	Acceptable	N/A

AR, Tab 8, SSA Final Evaluation Briefing Slides, at 132.

The source selection advisory council (SSAC) conducted a tradeoff analysis of the proposals and provided a written comparative analysis and award recommendation to the SSA. AR, Tab 5, SSP at 58; see also, AR, Tab 7, SSAC Comparative Analysis. The SSA then compared the proposals to determine the offeror that represented the best value to the government and documented the tradeoff and award decision in the source selection decision document (SSDD). AR, Tab 5, SSP at 59; AR, Tab 6, SSDD. The SSA found that GE was “more technically advantageous” than ATEC under the most important factor, engineering design and development. AR, Tab 6, SSDD at 15. In reaching this conclusion, the SSA found that ATEC presented a “slight” technical advantage under the engine design and performance subfactor, one of the two most important subfactors, but that GE presented a “clear” advantage over ATEC under the component design and platform integration subfactors, and was “minimally” advantageous under the system test and evaluation subfactor. Id. at 14. For the life cycle cost factor, the SSA found GE’s proposal to be “clearly advantageous” to ATEC’s. Id. at 19. The SSA found that ATEC had a “minimal advantage” over GE under the rights in TD, CS, and CSD subfactor, but that GE presented a “significant advantage”

³ The total evaluated price does not reflect the cost that each offeror stated it would absorb. GE proposed to absorb \$[DELETED] in costs while ATEC committed to absorb \$[DELETED] in costs. AR, Tab 8, SSA Final Evaluation Briefing Slides, at 132.

under the system design operating and support costs subfactor. Id. at 17-18. Finally, the SSA found ATEC's proposal to be "more advantageous" than GE's with respect to the small business participation factor. Id. at 19.

In determining that GE's proposal represented the best value to the government, the SSA concluded:

Looking past the adjectival ratings assigned by the SSEB to the details of the evaluation reveals that even though GE and ATEC would deliver engines with very comparable performance, GE offered a stronger technical proposal overall which is more advantageous to the Army than ATEC's, even with a moderate level of risk. Likewise, GE's evaluated cost/price is 23.5% less than that of ATEC, and GE's proposal was found to be more advantageous to ATEC's with regard to the third most important evaluation factor, [life cycle cost]. Giving due consideration to ATEC's advantage in the least important [small business participation] factor, GE has distinct advantages in each of the three highest weighted evaluation factors. When all non-cost factors are considered together, GE's advantages in the [engineering design and development] factor and the [life cycle cost] factor far outweigh ATEC's advantage in the least important [small business participation] factor. Even considering the relatively lower risk of ATEC's technical proposal, I find that this lower risk and the identified [small business participation] advantage is not worth the payment of \$162,962,934, which is a 30.7% price premium. In conclusion, I find that GE's proposal presents the best value to the Army, and therefore I select GE as the awardee of the ITE EMD contract.

Id. at 20.

On February 1, 2019, the agency awarded the contract to GE. COS/MOL at 24. That same day, the Army notified ATEC that its proposal was not selected for award. AR, Tab 58, ATEC Debriefing Charts, at 1. ATEC requested and received an in-person debriefing on February 5, 2019. AR at 24. ATEC then submitted questions, to which the Army responded on February 14. Id. On February 19, 2019, ATEC timely filed its protest with our Office.

DISCUSSION

ATEC has raised a number of protest grounds challenging the agency's evaluation under multiple factors and subfactors. Specifically, ATEC has alleged improprieties in the agency's evaluation under the engine design and performance, and platform integration subfactors under the engineering design and development factor, and the rights in TD, CS, and CSD subfactor under the life cycle costs factor. In addition, ATEC

has challenged the agency's analysis under the cost/price factor. We address these challenges below by subfactor.⁴

In reviewing a protest challenging an agency's evaluation, our Office will not reevaluate proposals, nor substitute our judgment for that of the agency, as the evaluation of proposals is a matter within the agency's discretion. Rather, we will review the record to determine whether the agency's evaluation was reasonable and consistent with the stated evaluation criteria and with applicable procurement statutes and regulations. Computer World Servs. Corp., B-410513, B-410513.2, Dec. 31, 2014, 2015 CPD ¶ 21 at 6. A protester's disagreement with the agency's judgment, without more, is insufficient to establish that the agency acted unreasonably. Vertex Aerospace, LLC, B-417065, B-417065.2, Feb. 5, 2019, 2019 CPD ¶ 75 at 8.

Evaluation of Engineering Design and Performance Subfactor

A TEC alleges that under this subfactor, the agency conducted a flawed evaluation regarding (1) certain maintainability metric estimates proposed by both offerors, (2) GE's proposed approach to surge margin⁵, and (3) GE's proposed use of ceramic matrix composite hardware in its engine. We address each of these issues below.

Evaluation of Maintainability Metrics

Under the engine design and performance subfactor, the agency was to "assess the [o]fferor's proposed engine design, performance, and operability to meet the SRD threshold requirements while complying with the SOW and the . . . EMS." RFP § M.1.1.1.1, at 90. Specific to engine design, the RFP stated that the agency would "evaluate the proposed engine design and the substantiating data provided for . . . reliability and maintainability." Id.

The SRD identified a number of different metrics that measured reliability and maintainability. See AR, Tab 4, SRD §§ 3.1.12, 3.1.13, at 11-12. As relevant to this protest, two of the maintainability metrics were maintenance ratio depot (MR_{Depot}) and

⁴ The protester also raises other collateral issues. For example, the protester argues that the agency failed to reasonably assess the risk and impacts of the weaknesses assigned to GE's proposal. We have reviewed the record and find that the agency's evaluation included a detailed and reasonable analysis of the weaknesses assigned to GE's proposal and the risks they may pose. We have reviewed all of the protester's other remaining arguments, and conclude that none provides a basis for sustaining the protest.

⁵ As explained more fully below, surge margin is a characteristic of the compressor component in the engine and measures the difference in pressure ratio in the compressor at different points.

maintenance ratio field (MR_{Field}).⁶ Id., §§ 3.1.13.2, 3.1.13.3, at 12. These two metrics measured the maintenance that took place either in the depot or in the field, and represent the number of maintenance man-hours per engine-operating hours (MMH/EOH) in each location.⁷ Id.; Hearing Transcript (Tr.) at 221:3-10. The SRD established an MR_{Depot} threshold of less than or equal to 0.176 and an MR_{Field} threshold of less than or equal to 0.121.⁸ Id. Neither the SRD nor the RFP identified the time period at which these metrics needed to be measured or provided further guidance on how the offerors should calculate them.

ATEC's MR_{Depot} estimate was [DELETED], and its MR_{Field} estimate was [DELETED]. AR, Tab 44a, ATEC Final Prop. Vol. IIa, at 27. GE's MR_{Depot} estimate was [DELETED] and its MR_{Field} estimate was [DELETED]. AR, Tab 36a, GE Final Prop. Vol. IIa, at 215. Both offerors received two strengths for exceeding each of the thresholds for MR_{Depot} and MR_{Field}. AR, Tab 9, SSEB Report, at 11, 19. As noted above, for the engine design and performance subfactor, ATEC received an outstanding technical rating while GE received a good rating. Both offerors received a moderate technical risk rating.

ATEC argues that the agency conducted a flawed comparison between GE's and ATEC's MR_{Depot} and MR_{Field} estimates. Specifically, ATEC asserts that the two offerors used "fundamentally different assumptions about what maintenance data and timeframes to incorporate into their estimates." Protester Post-Hearing Comments at 4. In this regard, ATEC alleges that GE calculated its MR_{Depot} to measure only the maintenance required for the year 2026, which was the end of the EMD contract when GE would produce a limited number of relatively new engines that would require little maintenance. ATEC contends that in doing so, GE's estimated MR_{Depot} was artificially low and misrepresented the actual amount of depot maintenance GE's engines would require over the life of the engine.⁹

⁶ The other maintainability metric was "mean time to repair" (MTTR); the reliability metrics were "mean time between essential function failure" (MTBEFF), "mean time between essential maintenance action" (MTBEMA), and "mean time between maintenance" (MTBM). AR, Tab 4, SRD §§ 3.1.12, 3.1.13, at 11-12. The SRD identified only a threshold requirement for MTTR, but both threshold and objective requirements for MTBEFF, MTBEMA, and MTBM. Id.

⁷ The depot refers to the Corpus Christi Army Depot (CCAD) where more complex repairs on the engine are performed; the field refers to maintenance performed outside of the CCAD. Tr. 221:11-20; 231:2-232:3.

⁸ These numbers mean that for every 1,000 engine operating hours, the engines will need to undergo 176 or 121 hours of maintenance in the depot or field, respectively.

⁹ In contrast, ATEC calculated its MR_{Depot} to represent the maintenance required across the lifetime of the engine program. Protester Post-Hearing Comments at 4.

ATEC also alleges that the Army failed to evaluate GE's substantiating data for these two metrics. ATEC asserts that as a result, the Army did not realize that in calculating the MR_{Depot} estimate, GE relied on improvements in the engines that GE may achieve only after the engines reached maturity, after the EMD contract had ended;¹⁰ and failed to include certain maintenance man-hours associated with repairs to line-replaceable units (LRUs).¹¹ Id. ATEC maintains that had GE properly calculated its MR_{Depot} rate, it would have been 0.167.¹² Protester Comments at 12.

The agency argues that even if ATEC is correct and GE's MR_{Depot} estimate should have been 0.167, ATEC suffered no prejudice because GE still would have received a strength for meeting the SRD threshold value for this metric. Agency Post-Hearing Comments at 9. The Army also contends that because the solicitation did not require offerors to utilize a specific approach to measure maintainability, the different approaches that GE and ATEC used were acceptable to the agency. Id. at 10.

Prejudice is an essential element of every viable protest, and where none is shown or otherwise evident from the record, we will not sustain a protest, even where the protester arguably may be correct. Sallyport Glob. Holdings, B-417223.2, B-417223.4, Apr. 3, 2019, 2019 CPD ¶ 133 at 5.

We agree that even if GE's MR_{Depot} estimate did not accurately reflect the depot maintenance required for GE's engines, ATEC did not suffer prejudice. To start, the RFP did not specify how offerors should calculate the MR_{Depot} metric or which timeframe they should use to measure this metric. As a result, neither offeror's approach ran afoul of the RFP. Moreover, according to ATEC, if GE had not improperly relied on improvements in the engines that GE would achieve only after the engines reached maturity, and not failed to include maintenance man-hours associated with repairs to LRUs, GE's MR_{Depot} would be 0.167. Even accepting this revised estimate as correct, it

¹⁰ According to the agency, engine maturity refers to the point at which the engine has been tested and proven in the field to demonstrate that it is reliable and stable, and there should not be much fluctuation in modifications or repairs to the engine. Tr. at 226:9-227:1. GE predicted its engine would reach maturity at [DELETED] hours of operation, which would occur after the end of the EMD contract. Tr. at 220:3-14. ATEC predicted its engine would reach maturity at the end of the EMD contract after [DELETED] hours of operation. Id. ATEC claims that it was improper for GE to rely on improvements in the engines that would occur after the EMD contract ended when calculating its MR_{Depot}.

¹¹ According to the agency, an LRU is a component of the engine that can be replaced without having to replace any other component, and they tend to be easily replaceable as an assembly on the engine. Tr. at 222:3-7.

¹² ATEC calculated this number by correcting the alleged errors in GE's estimate related to its reliance on improvements in engine reliability, and including the maintenance man hours associated with repairing LRUs. See Protester Comments at 10-12.

still would be lower than the 0.176 threshold required by the SRD. Thus, GE still would have received a strength for exceeding the threshold and ATEC has not otherwise shown that GE's technical rating or technical risk rating for this subfactor would have changed.

ATEC also alleges that the problem with GE's artificially low MR_{Depot} estimate of [DELETED] was compounded by the SSA, who erroneously thought that GE's MR_{Depot} measured the maintenance across the life of the program, and not just one year. Protester Post-Hearing Comments at 6-7, 12. In this regard, ATEC claims that GE's "perceived advantage in MR_{Depot} was one of the most important discriminators the SSA identified favoring GE in the [e]ngine [d]esign and [p]erformance subfactor, which essentially negated ATEC's own discriminators and higher rating in that subfactor." Id. at 12.

The agency counters that the SSA's comparison of the offerors under this subfactor was not driven solely by the MR_{Depot} metric, but rather, the SSA factored into his decision GE's advantage in other reliability and maintainability metrics. Agency Post-Hearing Comments at 11-12. The Army argues that given GE's advantage in the other three subfactors under the engineering design and development factor, "there is no reasonable basis to conclude that elevating ATEC's [s]ubfactor 1 advantage would overcome GE's advantages for the other three subfactors combined." Id. at 12. In a similar regard, the agency asserts that even if ATEC was better than GE in both MR_{Depot} and MR_{Field}, "[i]t is only logical that a change in 2 of 47 SRD requirements would not ultimately change the entire decision, especially when there is a \$162,962,934 price difference between the proposals." Id.

In comparing the two proposals under this subfactor, the SSA specifically noted the differences between the ATEC and GE proposals for the various reliability and maintainability SRD requirements, and not just MR_{Depot}. AR, Tab 6, SSDD at 5. In particular, the SSA noted that ATEC's proposed mean time between essential function failure (MTBEFF) of [DELETED] engine operating hours was slightly higher than GE's proposed MTBEFF of [DELETED], which meant that "ATEC's engine is expected to operate [DELETED] hours longer than GE's before an 'essential function failure.'" Id. The SSA also noted ATEC's advantage in the mean time between essential maintenance action (MTBEMA), which meant that ATEC's engine "is expected to operate [DELETED] more hours than GE's before an essential maintenance action is required to be performed." Id. However, the SSA stated that GE proposed a mean time between maintenance (MTBM) of [DELETED] engine operating hours versus [DELETED] for ATEC. Id. This meant that "the average time between all maintenance actions, whether scheduled (preventative) or unscheduled (corrective), is [DELETED] as long on GE's engine than on ATEC's, or, in other words, GE's engine operates [DELETED] as long before any maintenance action is expected to be required." Id.

With respect to MR_{Depot}, the SSA observed that for every 1,000 hours of operation, GE's engine would require [DELETED] hours of depot maintenance while ATEC's would require [DELETED] hours. Id. at 6. The SSA explained that this "significant difference

means ATEC's engine is expected to spend [DELETED] times as many hours in [the] depot being maintained [as] GE's, which means GE's engine returns to the field and is operational much more quickly than ATEC's, providing a significant advantage to the Army." Id. at 6. The SSA then concluded:

In summary, these reliability and maintainability metrics show that while ATEC's engine may be expected to generally remain in operation for a slightly longer time before some unexpected maintenance actions, GE's engine overall is expected to operate much longer between any maintenance action, and to require less time to repair and maintain than ATEC's engine. This difference is especially true when the engine requires depot-level maintenance, where GE's engine takes [DELETED] of the time of ATEC's. These advantages provide benefit to the operational Army day-in and day-out. Accordingly, GE's engine provides significantly greater reliability and maintainability advantages to the Army than ATEC's.

Id.

In concluding that ATEC's proposal was slightly more advantageous than GE's proposal under this subfactor, the SSA explained that "a close examination of the evaluation results shows that for many performance requirements, the proposals both meet or exceed Army requirements and are virtually equal." Id. at 7. The SSA stated that ATEC was more advantageous because it was stronger in the areas of survivability/vulnerability and surge margin, but that "[t]his advantage . . . is largely, but not wholly, offset by GE's distinct advantages in maintainability and repairability, which . . . provide everyday operational benefits to the Army." Id. at 7.

On this record, we do not agree that the MR_{Depot} estimate was one of the most important discriminators between the two offerors, as ATEC claims. In the SSDD, the SSA discussed all of the reliability and maintainability metrics and explained which offeror held an advantage on each one. While the SSA did state that GE's perceived advantage in the MR_{Depot} metric was a "significant difference" that provided a "significant advantage" to GE, he also highlighted GE's advantage in MTBM, which meant GE's engine would operate much longer between maintenance actions, and that overall, GE's "engine provides significantly greater reliability and maintainability advantages to the Army than ATEC's." AR, Tab 6, SSDD at 6.

At a hearing before our Office, the SSA also testified that he considered the MTBM metric to be the most important because it measured the length of time between all types of maintenance on the engine. Tr. at 378:18-379:13. In this regard, the SSA testified that GE had an almost [DELETED] advantage in MTBM, which he thought was

significant.¹³ Tr. at 386:16-387:2. Indeed, when asked whether he considered the MR_{Depot} metric to be the most important discriminator, the SSA replied that “there w[ere] a number of things that went into making the ultimate decision.” Tr. at 387:14-21. In sum, the record reflects that the SSA’s decision under this subfactor did not turn simply on his analysis of MR_{Depot} . Thus, even if the SSA misunderstood what GE’s MR_{Depot} estimate measured, ATEC has not shown that a correct understanding would have meaningfully altered the relative standing of the offerors.

ATEC also claims that GE’s MR_{Field} estimates were understated because GE predicted removal rates of fuel and oil filters that were unrealistically low, which would result in an artificially lower MR_{Field} estimate. Protester Post-Hearing Comments at 10-11. The agency argues that ATEC’s challenge to GE’s MR_{Field} estimate fails to state a claim upon which relief can be granted because its argument questions GE’s estimate of the fuel and oil filter replacements solely on the basis of what ATEC proposed. Agency Post-Hearing Comments at 13.

ATEC essentially argues that GE must have underestimated the number of times it would remove and replace the fuel and oil filter because GE’s estimates were much lower than ATEC’s estimates for removal of these same filters. While ATEC has generally alleged that but for these purportedly low numbers, GE’s MR_{Field} rate would be “substantially higher,” Protester Post-Hearing Comments at 11, it has not shown that GE would not be able to meet the SRD requirements for MR_{Field} . Aside from disagreeing with GE’s numbers because they were different from what ATEC proposed, we do not find that ATEC has shown that GE’s MR_{Field} rate was erroneously calculated or that the agency’s evaluation of this metric was unreasonable. Accordingly, this protest ground is denied.

Evaluation of Surge Margin

As relevant to this protest ground, as part of the requirements for engine performance and operability, proposals had to “address the amount of engine surge margin

¹³ ATEC argues that the SSA’s testimony regarding the importance of the MTBM metric was an attempt to “recharacterize the focus of his selection decision” and that the SSA “conceded that this new assessment was not consistent with the rationale he documented contemporaneously in the SSDD.” Protester Post-Hearing Comments at 12 n.9. We find the SSA’s testimony regarding MTBM provided further explanation about his decision and was not inconsistent with the discussion in the SSDD. Indeed, the SSA included an entire paragraph in the SSDD discussing the MTBM metric and then returned to this metric again when comparing the offerors’ overall reliability and maintainability metrics, noting that GE’s “engine overall is expected to operate much longer between any maintenance action.” See AR, Tab 6, SSDD at 5-6.

throughout the engine operating envelope”¹⁴ RFP § L.1.1.7.2, at 70. In addition, for the compressor component of the engine, the proposal had to address “surge margin on the basis of steady-state and transient margin available throughout the engine operating range and for surge line and operating line migrations with altitude and fuel flow schedule.” Id. at 71. The RFP stated that the agency’s evaluation would “assess the [o]fferor’s proposed design and data to substantiate the proposed engine performance to include . . . surge margin . . . throughout the engine operating envelope.” Id. § M.1.1.1.1, at 90.

The surge margin in a turbine engine relates to the performance of the engine’s compressor component in the operating envelope. During the hearing, the area lead evaluator for the compressor component explained that when developing the compressor, the offerors established performance of the engine at a certain operating line, which represents the engine operating at a steady state across the operating envelope,¹⁵ and a surge line, which represents the point at which the engine may become unstable. Tr. at 29:7-33:15. These two lines are tracked on a compressor map, which is a graph that measures the pressure ratio (on the Y-axis) versus air flow through the compressor (on the X-axis) to show certain features and characteristics of a compressor.¹⁶ Tr. at 29:7-19. The area lead explained that the operating line is “close to parallel” to the surge line on the compressor map. Tr. at 33:1-2.

The surge margin measures the difference on a compressor map between the operating line and the surge line at a certain point in the operating envelope. Tr. at 34:11-19. Thus, the surge margin is essentially the difference between the pressure ratio at which the compressor operates at the operating line and the pressure ratio at the surge line. As the area lead explained, when a pilot operating the helicopter at a certain speed has to make a sudden acceleration, referred to as a “transient,” it will create a surge in pressure ratio that drives the operating line up above its normal steady state and towards the surge line. Tr. at 34:1-13. If the acceleration is significant enough, the operating line could come close enough to the surge line that there would be little to no difference between the two lines and the compressor would have zero surge margin.¹⁷

¹⁴ The operating envelope is the environment in which the engine is operating and includes such variables as altitude and temperature, among other things. Tr. at 29:22-30:3; 61:11-18.

¹⁵ The area lead further explained that the operating line represented the engine operating at a constant speed with no acceleration or deceleration, “like [a] car on cruise control.” Tr. 33:9-15.

¹⁶ At the hearing, the area lead drew a sketch of a compressor map. Electronic Protest Docketing System Dkt. No. 146. During his testimony, the area lead referred to this sketch when explaining the surge margin.

¹⁷ The area lead further explained that how close the operating line moves towards the surge line depends on how fast the pilot accelerates. Tr. at 35:17-18. If the pilot

(continued...)

Tr. at 34:11-13, 35:1-10. After the pilot has reached a point where he or she no longer needs to accelerate, the compressor will return back to its steady state operating line but will be operating at a higher speed than prior to the acceleration. Tr. at 35:4-10. In short, the surge margin of a compressor provides information on how aggressively a pilot can accelerate from a steady state operating speed without creating instability in the engine.

As explained above, for the engine design and performance subfactor, the agency assessed whether the offerors' proposed engine designs met the SRD thresholds and requirements. RFP § M.1.1.1, at 90. With respect to surge margin, the SRD stated:

3.1.5 SURGE FREE OPERATION

The ITE shall not surge, stall, flame out or incur damage for both engine steady state and transient operation with both uniform inlet conditions and steady state inlet distortion (pressure, temperature, swirl, or combination thereof) conditions, when installed in a[] [Black Hawk] or [Apache] aircraft, throughout the operating envelope specified in 3.1.4 above.

AR, Tab 4, SRD § 3.1.5, at 3. The area lead further explained that surge-free operation meant that the compressor could never exceed the surge line on a compressor map at any point in the operating environment. Tr. at 65:8-66:10.

To demonstrate that the compressor operated surge-free, the offerors conducted stability audits that tested the compressor and measured the surge margin at different points across the operating envelope. According to the area lead, these different points in the operating envelope referred to different combinations of altitude and temperature at which the offerors tested the compressor to measure surge margin. Tr. at 74:1-11. The area lead also explained that both GE and ATEC purposely found the point in the operating envelope where the surge margin was zero, to demonstrate to the Army the acceleration capabilities of the engine. Tr. at 53:16-20. The area lead further explained that the point where the compressors have the least, or zero, surge margin is called the pinch point, and that is the point at which there are the least favorable conditions in the operating envelope with respect to temperature and altitude. Tr. at 45:18-46:3-5. GE determined that its pinch point was when the helicopter went from [DELETED] to [DELETED] power at an altitude of [DELETED] feet and [DELETED] degrees

(...continued)

accelerates slowly, the operating line will not approach the surge line as much. Tr. at 35:18-19. However, if the pilot needed to aggressively accelerate--e.g. to avoid gunfire--then the operating line will move much closer to the surge line, which translates into a much larger reduction in the surge margin. Tr. at 35:20-36:2.

Fahrenheit. See AR, Tab 68, CDNGE_8_Separate_Stacks, at 41¹⁸; see also Tr. at 55:1-5.

ATEC alleges that the Army's evaluation of whether GE met the SRD surge margin requirement was flawed because GE's prediction that it could operate surge-free throughout the operating envelope was based on a predicted surge margin that ATEC asserts GE cannot achieve. See Protester Post-Hearing Comments at 13. Specifically, ATEC refers to a table in GE's proposal that shows various parameters predicted for GE's proposed compressor, compared to parameters that GE achieved from testing its axial centrifugal compressor vehicle (ACCV2) rig.¹⁹ This table showed that GE's predicted "design point stall margin"²⁰ for its proposed engine was [DELETED] percent while the design point stall margin for the ACCV2 rig was [DELETED] percent. AR, Tab 36a, GE Final Proposal Vol. IIa, at 513. ATEC argues that GE's proposed engine is identical to its ACCV2 rig and that GE did not substantiate--and the agency never evaluated--GE's ability to achieve the increase in design point stall margin from the ACCV2 to the proposed engine.²¹ Protester Post-Hearing Comments at 13. ATEC concludes that if GE cannot increase its design point stall margin to [DELETED] percent for its proposed engine, its surge margin will be negative at the pinch point, and GE would not meet the SRD surge margin requirements. Id. at 20.

The agency argues that the fundamental premise of ATEC's argument is wrong because "there is no direct connection between design point stall margin and pinch point surge margin." To that end, the area lead testified that the design point "is a steady state point" that "does not include any transients at all." Agency Post-Hearing

¹⁸ "CDNGE" is the agency's reference to an EN related to the component design subfactor (CDN) that was issued to GE; hence, CDNGE.

¹⁹ According to the area lead, the ACCV2 rig is the compressor component of the engine that can be used to run tests and determine certain characteristics of the compressor. Tr. at 87:6-89-3; see also AR, Tab 36a, GE Final Proposal Vol. IIa, at 513. GE used the tests it ran on its ACCV2 to predict certain characteristics of its proposed engine.

²⁰ According to the area lead, the "stall margin" referred to in "design point stall margin" is the same thing as surge margin. Tr. at 45:9-17. As further explained below, a "design point stall margin" refers to the surge margin at the design point, which the area lead explained is a steady state point in the operating envelope with no transient. Tr. at 43:18-44:15.

²¹ The parties repeatedly quibble over whether to characterize the increase from [DELETED] to [DELETED] percent as a [DELETED] percent increase (the agency and GE) or a [DELETED] percent increase (ATEC). This focus is misplaced. The issue is whether the increase in GE's design point stall margin was significant for the purposes of the agency's evaluation of surge margin. It does not matter whether the increase is characterized as [DELETED] or [DELETED] percent.

Comments at 5; Tr. at 44:11-15. Moreover, he stated that “[t]here is no real relationship between the [design point stall margin and the surge margin]” and that the design point stall margin “doesn’t give you any indication on how your surge margin is going to be affected at the pi[n]ch point.” Agency Post-Hearing Comments at 5; Tr. at 47:22-48:7. Furthermore, when asked whether he agreed that if GE does not achieve the [DELETED] percent design point stall margin, “it’s virtually certain that the predicted pinch point surge line of zero would actually be lower than predicted,” the area lead responded:

No, not necessarily. One of those is not a true indicator of . . . what effect it would have.

Tr. at 166:1-9. Thus, the agency contends, because the design point stall margin does not indicate whether or not GE could meet the surge margin requirements, ATEC’s focus on the predicted improvement in design point stall margin is misplaced.

We agree with the agency. The testimony at the hearing confirmed that the design point stall margin is not directly related to surge margin at the pinch point, and that the pinch point identified in GE’s proposal, and GE’s ability to operate the engine surge-free, is not dependent on GE achieving its predicted [DELETED] percent design point stall margin. Indeed, as the area lead explained, the design point stall margin is measured at a steady state, on a standard day with no transient; in contrast, the pinch point was measured at an altitude of [DELETED] feet and [DELETED] degrees Fahrenheit and involved an [DELETED] from [DELETED] to [DELETED] power. Tr. at 43:18-44:15; 55:1-5. ATEC has not otherwise shown that GE must achieve the [DELETED] percent design point stall margin in order to meet the SRD surge margin requirements. Accordingly, we deny this protest ground.

Evaluation of GE’s Use of Ceramic Matrix Composite Hardware

ATEC also argues that the agency did not meaningfully consider the risk in GE’s approach to the use of ceramic matrix composite (CMC) hardware in its engine.²² Protester Comments at 18. In this regard, ATEC focuses on one of multiple tests that GE conducted to test its CMC shrouds, and alleges that the engine used for that test was not representative of GE’s proposed engine because the test engine reached a maximum temperature of only [DELETED] degrees Fahrenheit, while GE’s proposed engine could reach temperatures as high as [DELETED] degrees Fahrenheit. *Id.* at 20. ATEC claims that GE did not account for this difference in temperature, which could affect the engine’s ability to meet the sand ingestion test requirements, and contends

²² GE explains that CMCs are “materials developed to replace (or be substituted for) metal alloy parts in engines because, among other reasons, CMCs weigh less and can withstand more heat in crucial parts of the engine than metal alloys.” Intervenor Comments at 18. GE has proposed to use two CMC shrouds in its engine. AR, Tab 36a, GE Final Prop. Vol. IIa, at 775-76.

that the agency's evaluation never considered this.²³ See id.; see also Protester Supplemental Comments at 18-20.

The agency counters that ATEC's focus on one test is misplaced because the agency conducted a thorough review of GE's proposed use of CMC shrouds, and determined that there were no weaknesses associated with its approach. Supplemental Agency Report (SAR) at 18-19. To that end, the agency notes that GE's proposal discussed tests that it ran to expose the EBC and CMC shroud to sand at elevated temperatures and concluded that the EBC successfully protected the CMC shroud. SAR at 18-19; see also AR, Tab 36a, GE Final Prop. Vol. IIa, at 782-83. The agency also refers to other tests that GE ran on the CMC shrouds that involved temperatures higher than [DELETED] degrees Fahrenheit. SAR at 20. The agency asserts that its evaluation did not focus on one specific test, but rather it evaluated GE's proposed engine as a whole and determined that it met the applicable requirements.

We find the agency's evaluation of GE's proposed use of CMC shrouds reasonable. The record shows that GE performed a number of tests on the CMC hardware it would use in its engine, many of which had a maximum temperature greater than [DELETED] degrees Fahrenheit. See AR, Tab 36a, GE Final Prop. Vol. IIa, at 787. In particular, GE's proposal shows that it conducted a sand ingestion test on an engine that reached a maximum temperature of [DELETED] degrees Fahrenheit. See id. ATEC argues that this test was "abandoned after 4 hours," and that the test results "suggest[] that [GE] achieved unfavorable results that do not support its proposal." Protester Supplemental Comments at 20-21. ATEC's claim that this test suggested unfavorable results is speculative and without support in the record.²⁴ Moreover, in response to an EN regarding GE's use of CMC hardware, GE identified additional testing of its CMC hardware that it conducted at temperatures above [DELETED] degrees Fahrenheit. AR, Tab 68, EN Attach., CDNGE-114_Attachment, at 2. In particular, one test exposed CMC and EBC materials to temperatures over [DELETED] degrees Fahrenheit, and

²³ ATEC argues that the difference in engine temperatures matters because the CMC shroud in GE's proposed engine must be coated with an environmental barrier coating (EBC) to protect against high temperatures and pressure. Id. at 19-20. ATEC states that the EBCs could be at risk of spalling when interacting with sand and dust at high temperatures, which then could lead to CMC recession. Id. at 18-19. For its part, GE contends that ATEC has overstated the risks of the EBC spalling and that GE has developed an EBC that is less susceptible to spalling even at high temperatures. Intervenor Supplemental Comments at 38-41.

²⁴ Notably, the agency points out that ATEC's proposed engine also relies on the use of CMC hardware and that GE's test was "four more hours of sand ingestion testing at a representative environment than ATEC conducted." SAR at 21, n.12. ATEC has not refuted the agency's point, which further undermines ATEC's arguments regarding this test and GE's use of CMC hardware.

determined they were in good condition after [DELETED] endurance cycles with no significant EBC loss observed.²⁵ Id.

The sand ingestion test required offerors to show that the engine could operate with a specified concentration of sand and dust for 108 hours without experiencing “greater than 15 percent loss in output shaft power” or “10 percent increase in specific fuel consumption” as well as “no impairment of capability to execute satisfactory power transients . . . without surge or stall.” AR, Tab 36b, GE Final Prop. Vol. IIb § 3.2.5.6.4, at 72. As noted above, GE’s proposal showed that it conducted a number of different tests on its engine and CMC hardware. Consequently, the agency determined that GE met the sand ingestion test requirement and “provided substantiating data for sand ingesti[o]n[] testing.” AR, Tab 14, GE Component Design Subfactor Final Evaluation Report, at 41-42. ATEC’s singling out of one test does not provide a basis to sustain the protest where the record shows that the agency conducted a thorough evaluation of GE’s use of CMC shrouds and reasonably determined that GE’s proposed engine met the sand ingestion testing requirements. As a result, this protest ground is denied.

Evaluation of Platform Integration Subfactor

ATEC argues that the agency engaged in disparate treatment with respect to its evaluation of the electrical integration interface requirements under this subfactor because GE received a strength for “flexibility” in its approach to electrical integration, while ATEC did not, even though ATEC asserts that it proposed the same flexibility for electrical integration. Protester Post-Hearing Comments at 21.

Under the platform integration subfactor, the agency evaluated whether the design approach to integrate the engine into the Apache and Black Hawk helicopters would meet the SRD threshold requirements while also complying with the SOW and EMS. RFP § M.1.1.3, at 91. As relevant to this protest ground, to assess electrical integration of the engine, the agency evaluated “the proposed design and the substantiating data provided for integrating aircraft sensors, signals (to include discrete), and electrical power between the engine and aircraft.” Id. at 91.

At the hearing, the lead evaluator for the engineering design and development factor (the factor 1 lead) explained that there are different ways the offerors could design the electrical interface of the engines to send signals between the engine and the aircraft. As relevant here, both offerors proposed using a data bus²⁶ to deliver some signals,

²⁵ The agency also issued an EN regarding its concerns that GE’s proposal “lack[ed] sufficient substantiation regarding the effect of recession on the structural analysis of spalled CMC.” AR, Tab 67, EN CDNGE-0083, at 633-35. GE responded to the EN and provided additional substantiation, which the agency found addressed its concerns. Id.

²⁶ The agency explained that a data bus is “a methodology for communicating digital information between the engine and the aircraft rather than analog information direct from a signal.” Tr. at 470:2-5. A data bus delivers digital signals using an analog to
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while also utilizing hardwiring through a wiring harness to deliver other signals. Tr. at 469:15-471:3.

During the hearing, the factor 1 lead explained that GE received a strength because its proposal showed that for future interfaces, it offered flexibility to allow the Army to utilize either a digital data bus signal or a hardwired signal. Tr. at 481:13-482:15; 485:2-11. In support of the strength, the factor 1 lead referred to the following language in GE's proposal:

Looking towards yet possible future interfaces, at one extreme the interface can be used with an aircraft with most signals on buses and perhaps only a fuel on/off interface hardwired At the other extreme, the interface could support exclusively hardwired inputs.

Tr. at 484:12-485:11; AR Tab 36a, GE Final Prop. Vol. II, at 1801. With respect to ATEC, the factor 1 lead stated that although ATEC also proposed using both data bus and hardwired signals, its proposal did not show that it could move from digital data bus inputs to hardwired inputs for future interfaces, so it did not receive a strength. Tr. at 485:12-17; 489:16-490:11.

ATEC argues that this shows the agency engaged in disparate treatment because ATEC's proposal provided the same benefits as GE's proposal. Protester Post-Hearing Comments at 21. In this regard, ATEC contends that the agency awarded GE a strength because GE's proposal offered flexibility in using both data bus and hardwired inputs, and not because GE's approach would allow the agency to decide whether signals would be communicated via the data bus or hardwired for future interfaces. Id. at 21-22. ATEC asserts that the factor 1 lead's explanation therefore was inconsistent with the descriptions of GE's strength in the contemporaneous record. Id. at 22. ATEC states that given this background, it also should have received a strength because its proposal also offered the flexibility to utilize either data bus or hardwired interfaces. Id. at 23-26.

The Army counters that ATEC's proposal did not demonstrate that ATEC had the future flexibility to move signals from the data bus to hardwired whereas GE's proposal expressly stated it could do so. Agency Post-Hearing Comments at 14-15. In this regard, the agency argues that "the mere fact that ATEC's proposal has proposed to use different electrical interfaces from the legacy engine does not allow evaluators to make a reasonable inference regarding future flexibility." Id. at 15.

Based on this record, we find the agency's decision to award a strength for electrical integration to GE but not to ATEC unobjectionable. The contemporaneous evaluation

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digital converter, whereas hardwiring delivers only analog signals. Tr. at 475:19-477:13. Only one signal per wire can be sent when using hardwired analog signals. Id.

record explained that GE was awarded a strength because its proposal demonstrated “inherent flexibility with respect to using hardwired signals or databus interfaces for engine inputs.” AR, Tab 16, GE Platform Integration Subfactor Evaluation, at 2-3. This was a “benefit to the [g]overnment because it provides flexibility in contracting strategy on airframe integration efforts while supporting legacy integration systems.” Id. at 3. While this finding did not specifically state that GE could move signals from the data bus to a hardwired input for future interfaces, the factor 1 lead testified that this was the evaluation team’s thinking when they discussed the flexibility of GE’s approach. Tr. at 522:12-20. The factor 1 lead further explained this benefit to mean that if the agency wanted to modify the aircraft side of the interface, GE could accommodate either a digital data bus or hardwired connection. Tr. at 550:9-551:21. This explanation points to flexibility in future interfaces.

Moreover, as noted above, GE’s proposal stated that it could move from a data bus to a hardwired input, and vice versa, for future interfaces. In explaining this flexibility, GE’s proposal identified two different “extreme[s]” with respect to electrical interfaces, one involving mostly data bus inputs with only one hardwired input and the other “support[ing] exclusively hardwired inputs.” AR Tab 36a, GE Final Prop. Vol. II, at 1801. While ATEC claims that this language does not mention moving from a digital signal to a hardwired signal, the one extreme of utilizing all hardwired inputs indicates that this is exactly what GE could do for a future interface--i.e., move all inputs, including digital ones, to hardwired. Thus, it was reasonable for the Army to interpret this language as providing flexibility to move from digital to hardwired inputs for future interfaces.

With respect to ATEC’s proposal, we find the agency’s conclusion that ATEC did not show that it could move from digital to hardwired inputs to be reasonable. In its post-hearing comments, ATEC cites to multiple places in its proposal where it claims it demonstrated the capability to transfer signals from a data bus to a hardwired interface, but these statements deal with moving hardwired inputs to the data bus; something that the agency already acknowledged ATEC could do. Protester Post-Hearing Comments at 26; Tr. at 490:1-11. In further support of this argument, ATEC refers to a table in its proposal in which it identifies the existing interface for a particular signal and any changes it would make to that interface. AR, Tab 44a, ATEC Final Prop. Vol. II, at 1495. For three signals, the table shows that ATEC plans to add an analog (hardwired) signal to an existing digital signal, but in each case it would retain the digital signal. See id. Moreover, the factor 1 lead stated that “[t]here’s no indication of future integration on those tables specifically.” Tr. at 547:17-548:3. Based on this, we think it was reasonable that the agency did not interpret the information in these tables, or any other information in ATEC’s proposal, to demonstrate that ATEC could move signals from the data bus to hardwired for future interfaces.

In short, the record supports the agency’s conclusion that GE’s proposal offered the flexibility to move signals from the data bus to hardwired, or vice versa, for future

interfaces while ATEC's did not. ATEC's argument simply reflects disagreement with the agency's evaluation and is denied.²⁷ Vertex Aerospace, LLC, supra.

Evaluation of the Rights in TD, CS, and CSD Subfactor

ATEC contends that the agency's evaluation of this subfactor was flawed because GE's proposed data rights allegedly did not meet the agency's minimum requirements and, as a result, GE should have been rated lower for this subfactor.

Under the rights in TD, CS, and CSD subfactor,²⁸ the agency evaluated "the extent to which the proposal creates a competitive sustainment environment" by offering data rights that provide the government with the ability to perform five functions: (1) "maintenance support," (2) "spare parts procurement," (3) "software support," (4) "modifications," and (5) "obsolescence mitigation." RFP § M.1.1.3, at 93. For each of these five functions, the evaluation considered the following four questions:

- 1) Does the proposal provide the [g]overnment the minimum required rights?
- 2) Does the proposal provide the [g]overnment the data necessary to fulfill the intended purpose?
- 3) Are the data assertions for limited or restricted rights clearly discernable?

²⁷ Under this same subfactor, ATEC also argues that it should have received a strength for partially meeting the objective SRD requirement regarding the Apache mechanical interfaces. Protest at 46; Protester Comments at 31. This SRD objective stated that the proposed engine "shall maintain legacy mechanical interfaces with the [Apache] primary exhaust nozzle." AR, Tab 4, SRD § 3.3.1.1, at 13. In other words, the offerors' proposed engine design could not change or alter the existing mechanical interface. ATEC's proposed engine required the removal of an existing [DELETED] from the nozzle during installation of its engine. Protester Comments at 31. In other words, ATEC's proposed engine would require a change or alteration, however minor, to the existing mechanical interface. Given the clear terms of the SRD objective, we find reasonable the agency's decision not to assess a strength to ATEC for partially meeting this objective.

²⁸ This was one of two subfactors under the life cycle cost factor. The other subfactor was for system design operating and support costs, under which the agency calculated a benefit investment ratio (BIR) using a variety of data inputs provided by the offerors, including the offerors' estimated acquisition cost of the proposed engines. RFP § 1.1.3.2, at 93. The BIR measured the operating and support costs associated with the offerors' proposed engines against the baseline cost of the existing engine. Id.

4) Does the proposal offer the [g]overnment the appropriate rights to use the data for the intended purpose, and are the offered rights reasonably beneficial to the [g]overnment?

Id. The RFP explained that offerors would not be deemed non-responsive if they chose not to propose rights in technical data that were greater than the rights to which the government is already entitled under applicable regulations, nor was the offer of greater rights a condition of award. Id. Rather, an acceptable proposal was one that offered rights to all TD, CS, and CSD to which the government is entitled, as well as any non-developmental and commercial TD, CS, and CSD rights pertaining to “form fit function (FFF)” and “operations, maintenance, installation, and training (OMIT) data”. Id.

To propose data rights, each offeror completed a spreadsheet that listed the contract data requirements list (CDRL) for the EMD contract and the data items associated with each CDRL; some CDRLs had multiple data items associated with them. See, e.g., AR, Tab 42, GE Final Prop. Vol. IV, Attach. 5. Offerors proposed data rights for each data item and could propose different rights for different data items. See id.

GE proposed what it referred to as government purpose rights plus (GPR+) for the majority of the data. AR, Tab 28, GE Life Cycle Cost Factor Final Evaluation Report, at 4. GE’s GPR+ designation means the use of the data within the government is unlimited, while usage outside the government requires the recipient of the data to have a [DELETED] agreement that GE must approve.²⁹ Id. at 5. ATEC proposed unlimited rights for the majority of the data. AR, Tab 31, ATEC Rights in TD, CS, and CSD Final Evaluation Report at 4. Both offerors proposed their respective data rights at no additional cost and both offerors received a good technical rating and low technical risk rating for this subfactor. AR, Tab 6, SSDD at 17.

ATEC argues that the agency’s minimum needs for data rights were “greater than [l]imited or [r]estrictive rights,” and that GE’s proposed data rights did not meet these needs. Protester Post-Hearing Comments at 29-31. ATEC asserts that as a result, GE should not have been rated any higher than marginal for this subfactor. Id. In this regard, ATEC notes that the SSEB chair testified that for those CDRL items for which GE proposed limited or restricted rights, it was “likely correct” that the government would not be able to compete those items. Protester Post-Hearing Comments at 29-30; Tr. at 627:5-18, 632:9-19.

²⁹ Under Defense Federal Acquisition Regulation (DFARS) clause 252.227-7013, government purpose rights (GPR) means the rights to use the data within the government without restriction and to release the data outside the government and authorize the recipients to use it for government purposes, without requiring a non-disclosure agreement. DFARS clause 252.227-7013(a)(13). GPR typically revert to unlimited rights after five years. Id. clause 252.227-7013(b)(2). In contrast, GE’s GPR+ remain as GPR+ either [DELETED] or revert to unlimited rights after [DELETED] years. AR, Tab 30, GE Rights in TD, CS, CSD Subfactor Final Evaluation Report at 3-4.

ATEC further argues that the evaluators' concerns about the effect of GE's proposed data rights on the government's ability to compete sustainment activities were not raised to the SSA before he made his award decision. Id. at 31. Furthermore, ATEC claims that the SSA did not understand the difference between ATEC's and GE's approaches to data rights and that, rather than evaluating the extent to which each offeror enabled competition, his evaluation was a "de facto" pass/fail test. Id. at 32.

The agency counters that its evaluation correctly determined that GE's proposed data rights met the requirements outlined in the RFP. Agency Post-Hearing Comments at 18-19. To that end, the agency asserts that the evaluators assessed the proposed data rights "as a whole" to determine whether the proposed rights satisfied the four questions identified in the RFP for each of the five functions. Id. at 19. The agency also argues that ATEC's claim that the agency's minimum needs were greater than limited or restricted rights is misplaced; had the agency applied this standard, neither offeror would have been found to provide competitive sustainment for any of the five functions since both offerors proposed limited or restricted rights for at least some of the hundreds of different data items. Id. The agency further argues that the evaluation recognized the difference between ATEC's unlimited rights and GE's GPR+, but since both offerors proposed rights greater than what the agency is entitled to, both parties met the agency's needs as stated in the RFP. Id. 19-21.

Based on the record, we find the agency's evaluation of GE's proposed data rights unobjectionable. As a threshold issue, ATEC's claim regarding the agency's minimum needs is based on RFP attachment 10, which stated that the government had determined that its "minimum needs for this acquisition include greater than [l]imited or [r]estricted rights to any technical data, computer software, and computer software documentation required to support organic and third party sustainment objectives . . . for the engine, all major subassemblies, and components."³⁰ Protester Post-Hearing Comments at 29-31; AR, Tab 5, SSP at 77.

We do not interpret this language as a strict prohibition on proposing limited or restricted rights at the individual data item level. As noted above, the offerors proposed data rights across a significant number of CDRLs and individual data items. The agency conducted a row-by-row analysis of the proposed data rights for each data item and determined as a whole whether the proposal met the requirements in the RFP. Tr. at 630:2-631:19. Under the RFP's evaluation scheme, the mere fact that an offeror proposed limited or restricted rights for some of the individual data items did not mean that the offeror failed to meet the agency's minimum needs. Indeed, both GE and ATEC proposed limited and restricted rights for a number of different data items, and under ATEC's interpretation, neither offeror would have met the agency's minimum

³⁰ RFP attachment 10 provided offerors supplemental information for the life cycle cost factor proposal. AR, Tab 5, SSP, at 75-79.

needs. See AR, Tab 42, GE Final Prop. Vol. IV, Attach. 5; AR, Tab 50, ATEC Final Prop. Vol. IV, Attach. 5.

Moreover, the RFP stated that an acceptable proposal was one that offered rights to all TD, CS, and CSD to which the government is entitled, as well as FFF and OMIT data. RFP § M.1.1.3.1, at 93. Thus, where, as here, GE proposed data rights that exceeded the rights to which the agency is entitled, its proposal was at least acceptable. Furthermore, the underlying evaluation record demonstrates that the agency evaluated GE's proposal against the criteria outlined in the RFP and determined that its proposed data rights met the requirements by satisfactorily answering the four questions identified in the RFP for each of the five functions. See AR, Tab 30, GE Rights in TD, CS, CSD Subfactor Final Evaluation Report.

The record also shows that the agency recognized the difference between ATEC's and GE's proposed data rights and the potential limitations on competition that GE's GPR+ rights presented. In this regard, the agency determined that GE's GPR+ rights "potentially enable[] the [g]overnment to achieve the goals of organic and competitive maintenance and repair of the system, competitive procurement of spare parts, software support, modifications, and obsolescence mitigation." Id. at 3-4. The agency assessed three strengths to GE for the rights proposed for the maintenance support, competitive spares procurement, and software support functions, finding that GE's proposed rights enabled the competitive procurement of these three functions. Id. at 1-2. However, the agency found that GE proposed restricted rights for several data items under CDRLs related to the software support function, and limited and restricted rights for some data under CDRLs related to the modifications function. Id. at 10, 11. The agency concluded that while these limited or restricted rights did not prevent the government from performing software support or engine modifications, they "could impede" competitive procurement for these two functions in the future. Id.

As a result, GE did not receive a strength for either of these two functions. Id. Nevertheless, the agency noted that "[i]n cases where the offered rights were more restrictive than the [g]overnment's desired rights, license rights were offered that met or exceeded the need of the [g]overnment for the sustainment functions of competitive maintenance support, spare parts procurement, software support, modifications, and obsolescence mitigation." Id., at 3. Ultimately, the agency concluded that GE's proposal "meets the DFARS requirements and then provides additional benefits that enable the [g]overnment to perform maintenance support, competitive spares procurement, and obsolescence mitigation and to a lesser extent software support and engine modifications." AR, Tab 28, GE Life Cycle Cost Factor Final Evaluation Report, at 2.

In contrast, the agency determined that ATEC's unlimited rights "enable[] the [g]overnment to achieve the goals of organic and competitive maintenance and repair of the system, competitive procurement of spare parts, software support, modifications, and obsolescence mitigation." AR, Tab 31, ATEC Rights in TD, CS, and CSD Final Evaluation Report at 4. Although ATEC proposed restricted rights for certain data

items, the agency did not determine that this would impede competitive sustainment in any way. See id. As a result, ATEC received five strengths, one for its proposed data rights for each of the five functions. Id. at 1-2.

The record also shows that contrary to ATEC's claim, the SSA understood the difference between the two offerors' proposed approaches and was aware of the limitations in GE's approach. Indeed, the SSDD states:

While GE's proposal does support the Army's ability to perform software maintenance/support and engine modifications itself, its proposal did not clearly enable the competitive procurement of either in the future to the same extent as ATEC's. Despite the Army's request for government purpose rights (GPR) or better, GE proposed restricted rights for some data items necessary for competitive software support and limited and restricted rights for [DELETED] drawings, [DELETED] and associated lists, and depot maintenance work requirement deliverable data. In addition, GE proposed government purpose rights for some data items of mixed contractor and Government funding in both areas, but caveated those rights by proposing that GPR would not revert to unlimited rights on the time frame provided by the DFARS. For these reasons, the GE proposal was not assessed strengths for the sustainment functions of software support and engine modifications.

AR, Tab 6, SSDD, at 17. The SSEB chair also testified that the SSA was provided with all of the subfactor reports identifying the evaluators' concerns with GE's proposed data rights. Tr. at 655:14-657:11. ATEC's claims that the SSA was unaware of the evaluators' concerns or that he did not understand the difference between the two offerors' approaches are thus refuted by the record.³¹

Finally, ATEC argues that the agency should have considered the value of ATEC's proposed rights as compared to GE's as part of its analysis of "the extent to which GE and ATEC enabled competition for sustainment and therefore reduced life cycle costs." The RFP did not require an analysis of the costs of the proposed data rights under this

³¹ ATEC bases this argument on the SSA's testimony that he thought both offerors met the requirements of the RFP, and that he could not recall having a conversation about the evaluators' findings that GE's proposed data rights could impede competitive procurement for two of the five functions. Protester Post-Hearing Comments at 32-33. However, the SSA's testimony makes clear that he believed the offerors met the requirements because they satisfied the four questions posed in the RFP for each of the five functions. Tr. at 402:18-403:2; 408:2-12. The SSDD also reflects that he was aware of the reasons why GE was not assessed a strength for the sustainment functions of software support and engine modifications, and he agreed with that assessment. AR, Tab 6, SSDD at 17.

subfactor. The agency's decision not to consider the cost impacts of the proposed data rights on life cycle costs therefore was consistent with the RFP and unobjectionable.³²

Evaluation of the Cost/Price Factor

A TEC next challenges the agency's cost realism evaluation under this factor, arguing that the agency improperly failed to consider in its cost realism analysis the technical risk it identified in GE's proposal. A TEC also asserts that the large difference in proposed labor hours between the offerors shows that the offerors competed based on a materially different understanding of the RFP requirements, and that the agency did not conduct meaningful discussions with respect to labor hours.

For the cost/price factor, the RFP required an assessment of the realism of the proposed costs. RFP § M.1.1.2, at 92. The RFP stated that the agency would:

evaluate realism by independently reviewing and evaluating the specific elements of the Offeror's proposed cost estimate to determine whether the cost accurately reflects the Offeror's proposed effort to meet program requirements and objectives. . . . The result of the realism evaluation will be a determination of the probable cost to the Government (which consists of cost and fee). The probable cost will be determined by adjusting the Offeror's proposed cost to reflect any additions or reductions to cost elements to realistic levels based on the results of the realism analysis.

Id. The RFP further provided that the agency would "perform an evaluation of the technical elements contained within the offeror's cost proposal to perform the EMD SOW." Id. The findings of this evaluation were to be incorporated into the probable cost evaluation, but would not be assigned an adjectival rating. Id.

When an agency evaluates a proposal for the award of a cost-reimbursement contract, an offeror's proposed costs are not dispositive because, regardless of the costs proposed, the government is bound to pay the contractor its actual and allowable costs. FAR §§ 15.305(a)(1), 15.404-1(d); Exelis Sys. Corp., B-407673 et al., Jan. 22, 2013, 2013 CPD ¶ 54 at 7; CGI Fed. Inc., B-403570 et al., Nov. 5, 2010, 2011 CPD ¶ 32 at 5 n.1. Consequently, an agency must perform a cost realism analysis to determine

³² A TEC argues that this analysis should have been done because this subfactor fell under the life cycle cost factor and because the SSA's analysis of the BIR score under the system design operating and support costs subfactor "turned largely on his perception of the specific acquisition prices the offerors estimated as BIR inputs." Protester Post-Hearing Comments at 28. However, the record shows that the SSA's analysis of the BIR score turned largely on the fact that GE's BIR was over 170 points higher than A TEC's BIR. AR, Tab 6, SSDD at 18. While the SSA discussed each offeror's estimated acquisition cost--which were provided by the offerors--this was done to further explain the significant difference between the offerors' BIR scores. Id.

the extent to which an offeror's proposed costs are realistic for the work to be performed. FAR §15.504-1(d)(1); DynCorp Int'l LLC, B-411465, B-411465.2, Aug. 4, 2015, 2015 CPD ¶ 228 at 8. An agency is not required to conduct an in-depth cost analysis, see FAR §15.404-1(d)(1), or to verify each and every item in assessing cost realism; rather, the evaluation requires the exercise of informed judgment by the contracting agency. AdvanceMed Corp.; TrustSolutions, LLC, B-404910.4 et al., Jan. 17, 2012, 2012 CPD ¶ 25 at 13. While an agency's cost realism analysis need not achieve scientific certainty, the methodology employed must be reasonably available to the agency at the time of its evaluation. Metro Mach Corp., B-295744, B-295744.2, Apr. 21, 2005, 2005 CPD ¶ 112 at 10-11.

Here, the agency conducted an initial cost evaluation after it received the phase 1 proposals covering the cost/price, life cycle cost, and small business participation factors. AR, Tab 5, SSP at 57; Tr. at 670:21-671:10. Technical subject matter experts evaluated offerors' cost proposal basis of estimates (BOE) and provided a report with a technical recommendation for the cost elements within each BOE. AR, Tab 5, SSP, at 57. The SSEB chair explained that the technical specialists reviewing the cost/price were knowledgeable about what was required for EMD contracts, as well as engine and aircraft testing. Tr. at 673:13-14; 675:16-18. He further stated that members of the BOE evaluation team included the evaluation lead for the engineering design and development factor as well as the evaluation leads for all four of the subfactors under that factor; after conducting the initial cost evaluation, these members subsequently evaluated the offerors' engineering design and development factor proposals. Tr. at 678:15-679:1.

The offerors' BOEs were based on the SOW for the contract and depict the labor that is required to perform the work associated with each offeror's proposed engine. Tr. at 674:11-20. The BOEs provided details of the work and labor hours each offeror proposed to complete the design of their specific engine. See, e.g., AR, Tab 41, GE Final Prop. Vol. IIIB, BOE Sheets. To conduct the initial cost realism evaluation, the BOE team "performed a technical evaluation of the proposed labor skill mix, labor hours and types and quantities of material for the [cost plus incentive fee] task." AR, Tab 21, GE Cost/Price Factor Evaluation, at 3. Thus, consistent with the RFP, the cost evaluation team reviewed the technical elements in the offerors' cost proposals. See RFP § M.1.1.2, at 92.

A TEC argues that the agency's cost realism evaluation was flawed because it failed to consider the offerors' technical approaches. Protester Post-Hearing Comments at 35-42. Specifically, A TEC points to three significant weaknesses and five weaknesses that were assessed to GE under the engineering design and development factor, and alleges that each reflected a risk that GE would have to undertake a redesign of one of the components in its engine. Id. at 37. A TEC contends that the agency's cost realism evaluation was required to consider the risk--and cost--of a redesign represented by these weaknesses and significant weaknesses, and that the agency should have increased GE's proposed cost accordingly.

ATEC's argument is not supported by the RFP criteria for the cost/price factor. Moreover, ATEC has not provided any legal authority for its premise that an agency is required to consider technical risks identified in a technical proposal as part of its cost realism evaluation. While our Office has recognized that an agency can make cost realism adjustments based on performance risk assessed as part of the technical evaluation, it is not required to do so. Indeed, we have found "no reason why an agency should be required, in performing a cost realism analysis, to adjust costs to reflect what may not happen in circumstances where the agency believes that what is proposed is most likely to happen." Vinnell Corp., B-270793, B-270793.2, Apr. 24, 1996, 96-1 CPD ¶ 271 at 6; see also ELS Inc., B-283236, Oct. 25, 1999, 99-2 CPD ¶ 92 at 8.

Here, the record shows that the agency conducted a thorough cost realism evaluation, utilizing technical subject matter experts to assess the technical elements in the offerors' BOEs. These BOEs reflected the work the offerors had to perform to achieve their respective technical approaches. The record also shows that the agency fully considered the risk of performance as part of its technical evaluation and assigned a corresponding risk rating. The SSEB chair explained that the evaluators for the engineering design and development factor used their technical judgement to determine the likelihood that any of the identified risks in the proposals would materialize. Tr. at 687:18-688:9.

Thus, based on the various weaknesses, significant weaknesses, and strengths assigned to GE, the agency concluded that GE's overall technical risk rating for the engineering design and development factor was moderate. This meant that GE's proposal "contains a significant weakness or combination of weaknesses which may potentially cause disruption of schedule, increased cost or degradation of performance," but that "[s]pecial contract emphasis and close [g]overnment monitoring will likely be able to overcome any difficulties." AR, Tab 5, SSP, at 61. Thus, the technical risk rating reflected the fact that the agency determined the weaknesses and significant weaknesses in GE's proposal only "may potentially" disrupt the schedule or increase cost, and that these difficulties "likely" could be overcome. The agency properly assessed this risk as part of its technical evaluation, and it was not required to consider this risk in its cost evaluation. In short, the fact that there is some risk associated with an aspect of a proposal does not mean that an agency cannot regard the costs of performance, as proposed, as realistic, inasmuch as risk is simply a reflection of the degree to which what is proposed may or may not happen. See Vinnell Corp., supra at 6. Accordingly, we deny this protest ground.³³

³³ Based on the SSEB chair's testimony, ATEC also argues for the first time, that the agency's cost realism evaluation improperly "ignored" GE's unique technical approach because "[t]he Army performed the initial cost realism evaluation before receiving or reviewing GE's technical approach." Protester Post-Hearing Comments at 35-27. However, the SSP--produced by the agency in response to the initial protest--made clear that the agency would conduct its initial cost evaluation when the phase 1

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ATEC also claims that GE and ATEC competed on a materially different understanding of the Army's program requirements because ATEC's proposed labor hours were nearly [DELETED] that of GE. Protester Comments at 39-42. ATEC further asserts that this disparity in the offerors' proposed levels of effort shows that the Army failed to engage in meaningful and adequate discussions with ATEC, because it did not inform ATEC of the disparity in the offerors' proposed level of effort. *Id.* at 43-44. As explained below, these arguments provide no basis to sustain the protest.

During the course of this protest, ATEC has not identified an RFP requirement that it contends led to the alleged disparate understanding. Instead, ATEC asserts that the difference in proposed labor hours is proof that there was a different understanding of what was required. Protester Comments at 42. However, the mere fact that ATEC and GE proposed differing amounts of labor hours does not show that the offerors had a materially different understanding of the requirements. As the agency notes, the offerors proposed different engine designs that required different levels of effort. SAR at 48. Indeed, as one example, the agency points out that ATEC proposed to carry at least two [DELETED] designs into the EMD program when the final engine needed only one [DELETED] design. SAR at 49; AR, Tab 44a, ATEC Final Prop. Vol. IIa, at 662. This approach led to increased costs for travel, material, and labor for ATEC. SAR at 49; AR, Tab 49, ATEC Initial Prop. Vol. IIIB--Unpriced Cost Volume. This does not reflect a materially different understanding of the requirements, but rather a deliberate choice on ATEC's part to propose additional work.³⁴

In addition, the Army issued ENs to ATEC identifying at least five areas where ATEC proposed labor hours that were significantly higher than those anticipated by the Army--and proposed by GE--and stating that ATEC's proposed hours appeared to be duplicative or overestimated.³⁵ Protester Supplemental Comments at 30-31. In response to the ENs, ATEC elected not to revise its hours because it believed the

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proposals covering the cost/price, life cycle cost, and small business participation factors were received, prior to receipt of the phase 2 proposals addressing the engineering design and development factor. Accordingly, ATEC knew or should have known the basis for this protest ground upon receipt of the SSP and this argument is now untimely. See 4 C.F.R. § 21.2(a)(2). At any rate, as explained above, the Army's cost evaluation considered the technical elements of both offerors' proposed approaches, as reflected in their BOEs.

³⁴ In addition, GE's total proposed labor hours of roughly [DELETED] million were close to the independent government cost estimate (IGCE) of [DELETED] million. Protester Supplemental Comments at 40. ATEC has not challenged the IGCE or shown it to be unreasonable.

³⁵ In light of these ENs, ATEC's claim that the Army failed to conduct meaningful discussions has no merit.

proposed hours were consistent with its understanding of the SOW requirements. Id. at 31. ATEC asserts that the Army's failure to correct ATEC's understanding of the requirements stated in its response to the EN was evidence of a fundamentally different understanding of the RFP requirements. Id. at 31. This argument fails. When an agency engages in discussions with an offeror, the discussions must be meaningful, but an agency is not obligated to spoon-feed an offeror or conduct successive rounds of discussions until all proposal defects have been corrected. Hanford Env'tl. Health Found., B-292858.2, B-292858.5, Apr. 7, 2004, 2004 CPD ¶ 164 at 8. Here, the Army informed ATEC that it believed its proposed hours were duplicative or overestimated. That ATEC chose not to adjust its hours in response to the agency's concerns was a business decision and not an indication of a materially different understanding of the requirements. Furthermore, the agency had no obligation to conduct further discussions with ATEC regarding these areas.

The protest is denied.

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