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**Comptroller General
of the United States**

**United States Government Accountability Office
Washington, DC 20548**

Decision

Matter of: Fantastic Data

File: B-299076

Date: February 5, 2007

Dale Pitman for the protester.

Peter Giella, Esq., and Vera Meza, Esq., Department of the Army, for the agency.
Charles W. Morrow, Esq., and James A. Spangenberg, Esq., Office of the General
Counsel, GAO, participated in the preparation of the decision.

DIGEST

Protest against procuring agency's decision not to fund protester's Phase I proposal under the Department of Defense Small Business Innovative Research program is denied where the record shows that the agency reasonably evaluated the proposal.

DECISION

Fantastic Data protests the decision of the Department of the Army not to fund its phase I proposal under Department of Defense (DOD) Small Business Innovation Research (SBIR) program solicitation No. FY06.2.

We deny the protest.

The SBIR program is conducted pursuant to the Small Business Innovation Development Act, 15 U.S.C. § 638 (2000), which requires certain federal agencies to reserve a portion of their research and development funds for awards to small businesses. As part of its SBIR program, DOD issues an SBIR solicitation twice a year listing the research topics for which it will consider SBIR program admission.

Firms first apply for a 6-month phase I award to test the scientific, technical, and commercial merit and feasibility of a certain concept. If phase I is successful, the firm may be invited to apply for a phase II award to further develop the concept. After the completion of phase II, firms are expected to obtain funding from the private sector and/or non-SBIR government sources to develop the concept into a product for sale in private sector and/or military markets. See DOD's SBIR Website, <http://www.acq.osd.mil/sadbu/sbir/overview/index.htm>.

The solicitation included Army Topic A06-039, “Versatile Sensor Network/Data Fusion Optimization System.” The objective of this topic is to “[d]evelop a versatile wireless acoustic sensor network development system which will allow the optimization of high performance collaborative data fusion within scalable distributed sensor network architectures.”¹ Agency Report, Tab B, Topic A06-039, at 1.

In the area of acoustic signal processing,² the military customarily has relied on low cost distributed networks using 15 to 60 randomly placed sensor nodes.³ The utility of the process has been enhanced by the development of communication networks based upon MESH/Ad-hoc and ZigBee⁴ which allow scaling of the network to increase the number of nodes. The challenge has been how to optimize “sensor algorithms and hardware/software solutions for high performance data fusion within scalable sensor networks” because most networks rely upon “small collaborative networks which do not optimize what can be realized with high performance data fusion . . . in scalable networks.” Thus, the Army sought here to acquire an “innovative development approach and wireless system architecture to facilitate the optimization of data fusion for scalable networks.” Id.

¹ Data fusion also known as sensor fusion is the combining of sensory data or data derived from sensory data from disparate sources such that the resulting information is in some sense better than would be possible when these sources were used individually. See [http://en.wikipedia.org/wiki/Sensor data fusion](http://en.wikipedia.org/wiki/Sensor_data_fusion).

² The military utilizes acoustic signal processing to accurately track targets, such as gunfire locations. See Agency Report, Tab B, Topic A06-039, at 1.

³ Sensor nodes are devices using sensors to monitor physical or environmental conditions, such as temperature, sound, vibration, temperature, motion or pollutants at different locations. In addition to one or more sensors, each node in a sensor network is typically equipped with a radio transceiver or other wireless communications device, a small microcontroller, and an energy source, usually a battery. See [http://en.wikipedia.org/wiki/Sensor network](http://en.wikipedia.org/wiki/Sensor_network). The Army uses sensors and information processing to obtain, among other things, quick and accurate information about troop location, target location, and battlefield conditions. See Agency Report at 2.

⁴ Mesh networking is a way to route data, voice and instructions between nodes, which allows for continuous connections and reconfiguration around broken or blocked paths by “hopping” from node to node until the destination is reached. See [http://en.wikipedia.org/wiki/Mesh networking](http://en.wikipedia.org/wiki/Mesh_networking). ZigBee is the name of a specification for a suite of high level communication protocols using low-power digital radios based on the IEEE [Institute of Electrical and Electronics Engineers] 802.15.4 standard for wireless personal area networks. See <http://en.wikipedia.org/wiki/ZigBee>.

In this connection, the topic describes a system comprised of “at least 40 wireless acoustic sensing/processing nodes capable of communicating over distances of approximately 200 meters between nodes”; that the “[n]odes should embrace an open architecture that will enable third-party developers to port their software algorithms through downloadable applets that encode, filter, condition and classify acoustic signals”; that the “design of each node should allow common microphone interface and preamp, a processor to house the sensor processing and data fusion algorithms, computer interface to monitor and reprogram sensor/data fusion algorithms, and [the] communication system”; and that the “[n]odes should be capable of forwarding acoustic processed or unprocessed information over the wireless network to a central processing console,” including being “able to time stamp information packets forwarded from each node with time precision accuracy of less than 1 millisecond.” Also, the nodes had to be designed to “accommodate a wide range of potential sensor functionalities, ranging from minimal data fusion collaboration to more complex gateway level data fusion functionality [and] [t]he central processing console should be capable of performing further signal processing and system level data fusion using third-party algorithms as well as recording all acquired data within the sensor network.” Id.

With respect to phase I, the topic requires the following:

Review existing acoustic algorithms, data fusion approaches, and network architecture designs. Examine commercially available ZigBee or other applicable COTS [commercial-off-the-shelf] communications systems. Develop a flexible wireless acoustics network system architecture that will streamline the ability to develop, test, and optimize existing and future battlefield acoustic data fusion algorithms and network architecture designs. Demonstrate essential network functionality by collecting and forwarding real-time acoustic signals to a central processor using no less than 15 acoustic sensor nodes.

Id. at 1-2.

For phase I, the solicitation contemplated multiple awards of fixed-priced contracts to those proposals offering the best-value considering three evaluation factors listed in descending order of importance as follows:

- a. The soundness, technical merit, and innovation of the proposed approach and its incremental progress toward topic or subtopic solution.
- b. The qualifications of the proposed principal/key investigators, supporting staff, and consultants. Qualifications include not only the ability to perform the research and development but also the ability to commercialize the results.

c. The potential for commercial (Government or private sector) application and the benefits expected to accrue from this commercialization as assessed utilizing the criteria in Section 4.4.⁵

Solicitation at 11.

The Army received 27 proposals, including Fantastic Data's, for this topic. The proposals underwent a three-tier evaluation process. In tier 1, the proposals were evaluated by a three-member technical evaluation team, who possessed scientific and technical knowledge in the topic area and who rated proposals based upon a 100-point scale.⁶ Based on this evaluation, the "best" proposals were forwarded for a second level of review (Tier 2). Here, four of the proposals, not including Fantastic Data's, were forwarded for Tier-2 evaluation, and ultimately only one proposal submitted by Information Systems Technologies, Inc. (ISTI), was selected for funding (Tier 3). Fantastic Data's proposal was ranked 13th of the proposals received with total technical scores of 63, 46, and 56, respectively, from each of the evaluators.

Fantastic Data challenges the agency's evaluation of its proposal. Where an agency is conducting an SBIR procurement, it has substantial discretion to determine which proposals it will fund. RDAS Corp., B-294848, Dec. 23, 2004, 2004 CPD ¶ 253 at 2. In light of this discretion, our review of an SBIR procurement is limited to determining whether the agency violated any applicable regulations or solicitation provisions, or acted in bad faith. Id. Based on our review of the record, we have no basis to conclude that the agency acted improperly in deciding not to select Fantastic Data's proposal for funding.

The record shows that Fantastic Data's proposal was downgraded under the first factor primarily because it relied on its own previously developed sensor network protocol, which the evaluators regarded as innovative, but not necessarily flexible enough to accommodate future developments related to data fusion and algorithms outside of its proposed approach.⁷ See Agency Report, Tab D, Evaluation Reports. The evaluators believed that Fantastic Data's proposed approach, based on its own sensor network protocol, did not adequately recognize the need to develop an architecture that provided more flexibility to account for future developments in

⁵ Paragraph 4.4 provided among other things that commercial potential would be assessed based on the proposer's commercialization strategy and the proposer's record of commercializing its prior SBIR projects. Solicitation at 12.

⁶ The first factor was worth 50 points, the second factor was worth 30 points, and the third factor was worth 20 points.

⁷ Fantastic Data's proposal received evaluator scores of 28, 15, and 23 points, respectively, out of 50 possible points for the first factor.

sensor networks and “data fusion approaches”; the proposal’s focus did not demonstrate maximum flexibility on how “the system will meet a wide range of potential data fusion solutions and sensor network architectures,” including node functionality within the network or algorithm experimentation. See id.; Supplemental Agency Report at 6-8. While the protester, taking various evaluators’ comments out of context, asserts that this evaluation is unreasonable, it has not shown the agency’s basic concerns about the potential lack of flexibility of Fantastic Data’s approach were unjustified.

Moreover, the record shows with regard to this factor that the proposal did not address certain information that the agency considered critical, such as data acquisition, data time synchronization, ease of porting algorithms to the systems and maximum flexibility of data fusion/network design. Although Fantastic Data’s proposal focused on the sensor node, which was an important aspect of the network, the topic contemplated that the sensor node was to be just one aspect of the flexible wireless acoustic network system architecture, which also included such features as the central processing console, and gateway level data fusion functionality (which were addressed in greater detail in the much more highly rated awardee’s proposal). Fantastic Data does not show that its proposal contains this information or that its proposal should not have been downgraded because it lacked this information.

Under the second factor, for which Fantastic Data’s proposal received evaluator scores of 23, 23, and 21 points, respectively, out of 30 possible points, the protester focuses on some weaknesses identified by the evaluators which appear to be unrelated to what was supposed to be evaluated under this factor. However, the record shows other strengths and weaknesses identified by the evaluators, not challenged by the protester, which are germane to this factor.

Similarly, with regard to the third factor, for which Fantastic Data’s proposal received evaluator scores of 12, 8, and 12 points, respectively, out of 20 possible points, the protester again asserts that various weaknesses identified under the third factor were not related to that factor. Based on our review, we do not agree with the protester that the referenced weaknesses are unrelated to that factor, and note that the record contains other identified strengths and weaknesses identified by the evaluators that are clearly germane to the factor.

Nevertheless, even if Fantastic Data’s proposal received a perfect score from each evaluator under both the second and third factors, its total score would have been significantly less than the scores awarded to any of the four proposals forwarded for tier 2 evaluation.⁸ Thus, there was no possibility that Fantastic Data was

⁸ The four proposals forwarded for tier 2 evaluation received a total average score of 90 points or higher based on the evaluation of the three evaluators. In contrast,
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prejudiced, even if the agency's evaluation of its proposal under the second and third factors was unreasonable. See Shah & Assocs., B-257405, Sept. 30, 1994, 94-2 CPD ¶ 123 at 6.

Finally, Fantastic Data argues that the awardee's proposal should have been rejected because the awardee's key investigator did not meet the requirement in the solicitation that this individual be a full-time employee of the SBIR company. Fantastic also argues that the evaluators were biased in favor of the awardee, and therefore against Fantastic Data.

Fantastic Data is not an interested party eligible to protest the evaluation of the ISTI's proposal. Under our Bid Protest Regulations, 4 C.F.R. § 21.0(a) (2006), only an "interested party" may protest a federal procurement. That is, a protester must be an actual or prospective supplier whose direct economic interest would be affected by the award of a contract or the failure to award a contract. Determining whether a party is interested involves consideration of a variety of factors, including the nature of issues raised, the benefit or relief sought by the protester, and the party's status in relation to the procurement. Four Winds Servs., Inc., B-280714, Aug. 28, 1998, 98-2 CPD ¶ 57. A protester is not an interested party where it would not be in line for contract award were its protest to be sustained. Id. Since there has been no challenge to the intervening proposals, including those which were included in the tier 2 evaluation. These firms would precede the protester's in eligibility for award under this solicitation and, therefore, the protester lacks the direct economic interest required to maintain a protest of the award to ISTI.

With regard to Fantastic Data's allegations of bias in the evaluation of its proposal, we note that government officials are presumed to act in good faith, and a protester's claim that contracting officials were motivated by bias of bad faith must be supported by convincing proof; our Office will not attribute unfair or prejudicial motives to procurement officials on the basis of inference or supposition. Shinwa Elecs., B-290606 et al., Sept. 3, 2002, 2002 CPD ¶ 154 at 5 n.6. Here, we find no evidence of bias towards Fantastic Data; to the contrary, the record shows, as discussed above, that Fantastic Data's proposal was not funded because it was not among the highest ranked proposals.

The protest is denied.

Gary L. Kepplinger
General Counsel

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Fantastic Data's proposal would have scores of 82, 61, and 73, respectively, if it had received perfect scores under these two evaluation factors.