

# DECISION



**THE COMPTROLLER GENERAL  
OF THE UNITED STATES**  
WASHINGTON, D. C. 20548

**FILE:** B-215554

**DATE:** September 26, 1985

**MATTER OF:** Westinghouse Electric Corporation

## **DIGEST:**

1. Where a source selection evaluation board (SSEB) determines that technical data contained in an offeror's proposal have not been supported in the proposal, the SSEB may, based on its collective experience, extrapolate from the data supplied by the offeror to produce reliable data needed to evaluate the proposal.
2. Each new basis for protest first raised after the initial filing of a protest must satisfy independently GAO's timeliness requirements, and a protester's reservation of the right to raise new issues subsequent to the initial filing does not exempt the protester from these requirements.
3. Issues concerning the evaluation of a protester's cost proposal are academic when the agency properly has determined that the protester's technical proposal is unacceptable.
4. Where the protester proposes a payload weight of 54.54 (plus or minus 0.43) pounds, and three weight analyses by the agency show that the protester's payload would exceed the 55-pound limit stated in the solicitation, the agency's conclusion that the protester's payload carried a very high risk of being overweight cannot be said to be unreasonable, particularly when the agency has reason to question the accuracy of the protester's weight data.

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5. Where the protester and the agency disagree over whether the protester's design would meet the requirements of the solicitation and the protester has not shown that the agency's analyses of the protester's proposal were clearly in error, GAO will not question the agency's technical conclusion.
6. An agency's use for evaluation purposes of its own sensitivity data, which were more conservative than the protester's data, is not objectionable when the protester failed to provide the agency with adequate backup material to support the use of the protester's data.
7. Protest is denied where the protester admits that the drift rate proposed in its design does not satisfy the requirement of the solicitation and the protester does not provide a basis for questioning the agency's judgment that the proposed rate would present serious operational problems.
8. Agency evaluators cannot just accept blindly an offeror's conclusion that its design will be stable, but must make an independent judgment of the risks inherent in the proposed design.

Westinghouse Electric Corporation protests the rejection of the proposal it submitted in response to request for proposals (RFP) No. DAAK20-84-Q-0337, issued by the Army Electronics Research and Development Command, Fort Monmouth, New Jersey. Westinghouse disputes the Army's determination that its proposal was technically unacceptable and contends that the agency improperly evaluated the proposal, that the evaluators presented inaccurate information concerning the proposal to the source selection authority, and that the agency ignored the significant cost savings that the Westinghouse proposal would yield. We deny the protest in part and dismiss it in part.

## I. BACKGROUND

The solicitation sought proposals for the full-scale development<sup>1/</sup> of a forward-looking infrared (FLIR) mission payload subsystem (FMPS) for the Army's remotely piloted air vehicle (RPV). The RPV is a drone aircraft that the Army plans to use for battlefield reconnaissance, target designation, artillery fire adjustment, and damage assessment. The RPV system consists of an air vehicle, a ground control station, launch and recovery equipment, and general support and maintenance equipment. Interchangeable payloads will enable the RPV to perform its various missions under varying conditions.

One payload currently in development is a daytime system consisting primarily of a television camera and a laser rangefinder/designator. The latter device can be aligned optically with the TV camera to focus a laser beam on a target, either to measure its distance or to guide so-called "smart ammunition." Westinghouse is developing the daytime system under a subcontract with the RPV's prime contractor. The solicitation in this case, however, was for a system that can perform the same mission at night or when visibility is reduced because of adverse weather conditions. This capability is achieved largely through use of a thermal imaging sensor, or FLIR.

The solicitation stated that the Army would award a fixed-price incentive contract to the offeror with the best overall proposal based on the following major factors, in order of importance: technical, integrated logistics support (ILS), cost, and management. Evaluation subfactors were listed under each major factor. In the technical area, the subfactors were, in descending order of importance:

1. Integration and assembly
2. FLIR sensor
3. Gimbals and stabilization

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<sup>1/</sup> Full-scale development is a phase of a weapon system's acquisition cycle in which all components of the system are designed, fabricated and tested. It includes delivery of prototypes (in this case, 10) and technical data. Full-scale development precedes full production.

4. Electronics
5. Laser rangefinder/designator
6. Testing
7. Payload control unit

Only Ford and Westinghouse submitted proposals in response to the solicitation. Following an initial evaluation of the proposals by the source selection evaluation board (SSEB), the agency determined that both proposals were in the competitive range. The agency then held three successive rounds of negotiations with the offerors. Each round consisted of a number of written questions to the offerors, oral discussions, written responses by the offerors, and a further evaluation by the SSEB. After evaluating the best and final offers, the SSEB gave the Westinghouse proposal an overall technical rating of unacceptable, based on perceived deficiencies under two technical evaluation subfactors: integration and assembly, and gimbals and stabilization. The SSEB reported the results of its evaluation to the source selection authority (SSA) who selected Ford Aerospace for award. By letter dated May 31, 1984, the agency notified Westinghouse that its proposal had been rejected and briefly summarized the reasons for the unacceptable rating under the two technical subfactors listed above.

By letter dated June 14, Westinghouse filed a protest with this Office contending that the Army had determined incorrectly that its proposal was technically unacceptable, citing both the integration and assembly and the gimbals and stabilization subfactors. The protester also complained that the agency failed to consider its substantial cost advantage. Westinghouse stated that it had been unable to obtain a complete debriefing and, that for this reason and because of the complexity of the issues involved, it was reserving the right to supplement its protest when it learned more about why the agency had rejected its proposal.

After the agency submitted its administrative report--which consisted of 25 volumes of material--Westinghouse submitted a lengthy statement on August 30 which explained the basis for its disagreement with the agency concerning the integration and assembly and the gimbals and stabilization technical subfactors. The statement also raised issues concerning the evaluation of the protester's proposal under the ILS, cost, and management factors.

Following a protest conference attended by representatives from Westinghouse, the Army and this Office, both parties made further submissions. The Army offered a detailed point-by-point refutation of all the allegations made by Westinghouse in its submission of August 30. After reviewing this material, Westinghouse said that it continued to maintain that the Army had not properly evaluated its proposal.

## II. TIMELINESS

The agency argues that the issues raised for the first time in the protester's August 30 submission are untimely. We agree.

Our Bid Protest Procedures, applicable at the time this protest was filed, stated that a protest based on other than alleged solicitation improprieties must be filed within 10 days of when the basis for the protest is known or should have been known. 4 C.F.R. § 21.2(b)(2) (1984). In this case, Westinghouse knew when it received the Army's letter of May 31 that the agency had determined that its proposal was unacceptable based on perceived deficiencies in two technical subfactors: integration and assembly, and gimbals and stabilization. Following a debriefing on June 13, Westinghouse filed a protest on June 14 challenging the agency's conclusions with respect to these two technical subfactors and its failure to consider the cost advantage of the firm's proposal. Westinghouse reserved the right to supplement its protest with additional facts if and when they became available. In its submission of August 30, Westinghouse raised additional issues concerning the ILS, cost, and management evaluation factors.

As the Army correctly points out, a protester's use of language reserving the right to raise new issues subsequent to filing its initial protest does not exempt the protester from our timeliness requirements. Tracor Jitco Inc., B-208476, Jan. 31, 1983, 83-1 CPD ¶ 98. Rather, each new basis for protest first raised after the initial filing must satisfy the timeliness requirements independently. Siska Construction Co. Inc., B-218428, June 11, 1985, 85-1 CPD ¶ 669.

While the line between a new basis for protest and additional details in support of a timely filed protest is not always clear, we think the issues raised in the August 30 letter concerning ILS and management evaluation factors are independent bases for challenging the evaluation of the Westinghouse proposal. Since the latest that Westinghouse could have been aware of the Army's evaluation of its proposal with respect to these two factors was in late July, when it received a copy of the agency report, the raising of these issues for the first time on August 30 was untimely. With respect to the cost issue, the protester merely alleged in its protest on June 14 that the agency gave no consideration to the fact that acceptance of its proposal would have resulted in a lower cost to the government. While we agree with the Army that the arguments made by Westinghouse in its August 30 submission probably raise new issues regarding the agency's evaluation of the Westinghouse cost proposal, we think the issue is academic. Given our conclusion that the agency reasonably determined that the Westinghouse proposal was technically unacceptable, there is no reason to consider any of the issues concerning the evaluation of the cost proposal since the proposal could not have been accepted for award. Fil-Coil Co. Inc., B-213078, Feb. 22, 1984, 84-1 CPD ¶ 219.

### III. SUMMARY CONCLUSION

This protest involves a procurement of extremely sophisticated hardware. The issues raised by the protester were highly technical and required us to review a voluminous and complex record. Each of the issues timely raised is discussed below. Since both Westinghouse and the Army essentially repeat many of the same arguments with respect to each of these issues, however, we first present our overall observations and conclusions.

The substantive issues raised involve areas of technical disagreement between Westinghouse and the Army. In this regard, it is not the function of this Office to reevaluate technical proposals. Bank Street College of Education, 63 Comp. Gen. 393 (1984), 84-1 CPD ¶ 607. The determination of the needs of the government and the method of accommodating such needs are primarily the responsibility of the procuring agency, 46 Comp. Gen. 606 (1967), which therefore is responsible for the overall determination of the relative desirability and technical adequacy

of proposals. In making such determinations, the agency's specialists and technicians enjoy a reasonable range of discretion, and this Office will not question their determinations unless there is a clear showing of unreasonableness, an arbitrary abuse of discretion, or a violation of the procurement statutes and regulations. METIS Corp., 54 Comp. Gen. 512 (1975), 75-1 CPD ¶ 44. This is particularly so where, as here, the agency is procuring sophisticated technical hardware. Coherent Laser Systems, B-204701, June 2, 1982, 82-1 CPD ¶ 517. We did not perform an independent technical evaluation in this case, but rather applied the standard set forth above. Using this standard, we found no basis for objecting to the evaluation of the Westinghouse proposal.

One common thread that runs through all of the technical issues is the allegation by Westinghouse that the SSEB substituted its own data for that supplied by Westinghouse and thus misrepresented its proposal to the SSA. We found no evidence of misrepresentation or other impropriety. First, the issue here is not whether the SSEB communicated verbatim to the SSA all of the claims made by Westinghouse in its proposal, but rather whether the evaluation by the SSEB, upon whose judgment the SSA appears to have relied heavily in making the award decision, was fair and reasonable. In this respect, it appears that the SSEB continually was frustrated by the inadequacy of the backup data supplied by Westinghouse. Throughout the entire evaluation process, including hundreds of discussion points called "errors, omissions and clarifications," the SSEB found, and our review has confirmed, that the data supplied by Westinghouse were hard to find, incomplete or conclusory. When the SSEB found the Westinghouse data to be inadequate, it often extrapolated from that data and substituted its own data, which were usually more conservative. While this caused the SSEB's assessment of the risks involved in the proposal to vary from the protester's assessment, we think the SSEB was merely performing its assigned task of conducting an independent evaluation of the technical adequacy of the Westinghouse design.

#### IV. DETAILED ANALYSIS

In assessing the merits of the Westinghouse and Ford proposals, the agency used a rating scheme involving strong points, significant strong points (green flags), weak points, and major deficiencies (red flags). The agency

used these ratings as guides to determine whether each proposal was acceptable or unacceptable for each evaluation factor and subfactor. The agency rejected the proposal from Westinghouse because of red flags the firm's proposal received (leading to unacceptable ratings) for six evaluation subfactors. In its protest, Westinghouse concentrates on these six areas and has attempted to challenge specific statements made by the SSEB with respect to each. Our consideration of the protest follows this approach.

A. Integration and Assembly

1. Weight

The purchase description incorporated in the solicitation stated that the total installed weight of the FMPS and the mounting fixture on the RPV could not exceed 55 pounds. The Westinghouse proposal received a final rating of unsatisfactory under the integration and assembly subfactor in part because of a red flag in the weight area. The evaluators stated that Westinghouse had admitted in its proposal that its design would weigh at least 55.61 pounds and that, although Westinghouse had suggested weight reduction measures totaling 1.67 pounds, Westinghouse had not incorporated these measures in its proposed design. Moreover, the evaluators cited three separate government analyses of the Westinghouse design showing that the Westinghouse FMPS would weigh between 59.72 and 62.02 pounds.

Westinghouse says that the proposed weight of its FMPS was not the 55.61 pounds used by evaluators, but rather was 54.54 pounds, plus or minus 0.43 pounds. Westinghouse challenges the accuracy of the three analyses made by the evaluators, contending that they were not based on data provided by Westinghouse and that they improperly used growth percentages in estimating the weight of the Westinghouse design. The Army's indiscriminate use of growth percentages, says Westinghouse, failed to account for the facts that the proposed system was in large part a mature design--and thus would not experience the same rate of weight growth as might a system in an earlier stage of development--and that the weight figures provided by Westinghouse were based on scale weights of existing components.

From our review of the record, it appears that the claim by the evaluators that Westinghouse "admits to being over the required weight" is not entirely accurate. Westinghouse actually proposed a weight of 54.54 pounds, plus or minus a tolerance of 0.43 pounds. The firm arrived at this weight by subtracting 1.67 pounds from the 55.72 pounds it originally proposed to account for selected weight reduction measures. Westinghouse then added 0.49 pounds to account for changes made to reduce sinusoidal (up and down) vibration. The agency calculated the weight of the proposed Westinghouse FMPS to be 55.61 pounds by taking the weight originally proposed by Westinghouse, 55.72 pounds, and subtracting 0.11 pounds to account for a correction in the actual weight of the FLIR, a weight that was substantiated by the FLIR subcontractor. Thus, the agency did not include in its calculations either the 1.67-pound decrease or the 0.49-pound increase. While the agency's reason for overlooking the 0.49-pound increase is not apparent, the record indicates that the evaluators ignored the 1.67 pounds of weight reduction measures proposed by Westinghouse because they found that the proposed measures had not been substantiated adequately. For example, the evaluators noted that while Westinghouse proposed a change to a composite graphite epoxy material for both the yoke and the elevation gimbal, the firm had said in its original proposal that this would result in "low producibility, high complexity and high cost, and should not be done." The evaluators also said a proposed 0.30-pound reduction in the weight of the FLIR through substitution of materials had not been addressed by the FLIR subcontractor.

From our review of the record, we cannot say that the agency's conclusion that the Westinghouse design posed an unacceptable risk of not meeting the weight limit was unreasonable. As explained by the agency, the precise weight of the FMPS is important because changes in payload weight directly affect the center of gravity, and thus the flight performance, of the air vehicle. Excess weight also can affect adversely the air vehicle's maneuverability, range, endurance, and speed. For these reasons, the solicitation established a maximum FMPS weight of 55 pounds.

While it may not have been accurate for the evaluators to claim that Westinghouse "admits to being over the

required weight," the weight that Westinghouse proposed nevertheless was very close to the maximum allowed, and it is clear throughout the evaluation documents that the SSEB was concerned that the Westinghouse design carried a very high risk of producing a payload that would be overweight. In addition, the evaluators stated that this concern was increased because of their view that the weight data provided by Westinghouse throughout the procurement cycle were confused, inconsistent and lacked cohesiveness. This concern was further heightened by the need for Westinghouse to make its FMPS more rigid, which the evaluators believed almost certainly would mean additional weight.

We understand the protester's concern that the agency evaluators may have overemphasized the weight growth percentage in the agency analyses. The assessment of the risk of weight growth inherent in the Westinghouse design is, however, largely a matter of technical judgment, analysis and experience and we are not prepared to conclude that the evaluators acted unreasonably because they took a conservative approach in the evaluation. A significant contributing factor to this approach seems to have been the evaluators' inability to find adequate supporting data in the various Westinghouse submissions, a concern raised by the agency in a May 24, 1984, letter to the firm.

## 2. Structural Integrity

The Westinghouse proposal also received a red flag because the evaluators predicted excessive line-of-sight errors. In essence, the evaluators feared that during extreme air vehicle disturbances, the structural response of the FMPS would impair the payload's ability to maintain a line of sight and, thus, would not permit accurate target tracking or designation. In this connection, the purchase description contained several specific requirements for the FMPS to meet in order to minimize external disturbance effects on the line of sight. One of these read: "Gimbal Mechanical Resonances. The lowest frequency mechanical resonance shall be greater than 150 Hz."

The briefing to the SSA with respect to this issue was as follows: "Structural flexibility and resonances cause excessive line-of-sight errors, precluding target tracking or designation. FLIR optical bench resonates below required 150 Hz. threshold. ICD [Interface Control

Document]-specified vibration envelope causes excessive line-of-sight jitter." In addition, the agency also notes that the errors at the isolator resonance frequency are more than six times that permitted by the specification and that the optical bench heat exchanger (OB/HE) also fails the 150-Hz. resonance requirement.

Westinghouse questions the agency's position first by contending that the 150-Hz. resonance threshold does not apply to the FLIR optical bench or to the OB/HE because neither of these items is a gimbal. Moreover, Westinghouse contends, it amply demonstrated the adequacy of its structural design in both its best and final submission and its rigidity study. Further, Westinghouse argues that the aircraft engine, which is the source of the vibration, does not rotate slowly enough during flight such that excessive line-of-sight jitter would result.

The Army concedes that neither the FLIR optical bench or the OB/HE is a gimbal. It states, however, that both of these items are key structural members of the outer azimuth gimbal which maintain the mechanical rigidity of that gimbal. As such, any disturbance transmitted to these components will affect the outer azimuth gimbal and, therefore, affect line-of-sight accuracy. We are unable to find where Westinghouse questions this reasoning. With respect to the Westinghouse rigidity study, the Army notes that while the study does show acceptable line-of-sight motions, the study was based on much different vibration levels than those specified in the interface control document. Only in its final offer did Westinghouse use the required vibration levels. In that submission, however, Westinghouse made a number of design changes in order to meet the rigidity requirements. These changes, says the Army, simply led to greater concern about the risks of the Westinghouse proposal and still did not meet all the requirements of the interface control document. Finally, we note that Westinghouse acknowledged in its revised proposal that its line-of-sight motion did not meet the requirements of the specification at all frequencies; but argued that this condition was acceptable because the line-of-sight error rate would not be excessive at the RPV's minimum in-flight engine speed. It appears to us, however, that Westinghouse's position that the aircraft engine does not rotate slowly enough during flight to cause enough vibration to result in excessive line-of-sight errors is

in effect an attempt to alter the required vibration levels contained in the interface control document.

We reviewed all of the technical arguments made by Westinghouse concerning structural integrity together with the Army's detailed technical responses to those arguments. Although Westinghouse is convinced that its design would meet the requirements of the solicitation, it appears to us that the Army had good reason, based on its own analysis, to conclude that it would not. Westinghouse has not convinced us that the Army's analysis was clearly in error.

### 3. Boresight

The Westinghouse proposal received a red flag in the final evaluation because of a perceived problem with boresight, a measure of how close the laser is to the target. After Westinghouse filed its protest, the Army reexamined this issue and determined that while the boresight problem was still a weak point, it was not so serious as to merit a red flag. Although Westinghouse does not concede that its boresight capability is a weak point, we see no reason to discuss this issue further since the Army's position is that eliminating the boresight red flag would not have changed the overall unacceptable rating for the integration and assembly subfactor. Thus, it does not appear that the admitted error concerning the evaluation of boresight was material.

### 4. Wide Field of View Detection

In its final submission, Westinghouse proposed an entirely new FLIR design in response to concerns by the evaluators. Although the proposed FLIR was rated under the FLIR evaluation factor, the range of the FLIR was also evaluated under the integration and assembly factor. The comments of the evaluators under both factors indicate a concern with the detection capability of the FLIR in the wide field of view. This concern does not appear to have affected the overall acceptable rating of the Westinghouse FLIR under the FLIR evaluation factor, but did give rise to a red flag under the integration and assembly factor. Basically, the evaluators believed that Westinghouse had not provided enough data to establish that the proposed

FLIR would satisfy the wide field of view target detection range requirement contained in the solicitation. The evaluators were particularly concerned about this lack of data because the detection sensitivity predicted by Westinghouse was significantly more than anything currently being produced. Consequently, in evaluating the detection range of the FLIR, the Army used its own, more conservative sensitivity data.

In raising this issue in its protest, Westinghouse contended that the Army's analysis "is somewhat arbitrary and contains certain invalid assumptions." Westinghouse said that because of the classified nature of this subject, it would present the details to support its contention later. In its subsequent submissions, however, Westinghouse either did not address this issue or simply stated that the required detection range would be met using Westinghouse's proposed sensitivity factor, after alleging that the agency had been arbitrary in choosing its own detection sensitivity to evaluate the detection range of the proposed FLIR.

Because Westinghouse did not provide the details it promised in support of its protest on this issue, our review was limited to the Army's choice of a detection sensitivity in the evaluation. The Army's position is that since Westinghouse did not provide the data to support the detection sensitivity it used in its mathematical model, the agency used the "common module specification." Other than arguing that this is not the value it used, Westinghouse has made no effort to show that the Army's action in this regard was unreasonable. We do not think that the agency evaluators were obligated to accept the protester's optimistic predictions of detector sensitivity without adequate backup data. We therefore have no basis to question the evaluators' technical judgment on this point.

#### B. Gimbals and Stabilization

Westinghouse's proposal received an unacceptable rating under the gimbals and stabilization factor based on red flags on two subfactors: rate error and stabilization error.

### 1. Rate Error

Rate error is a measure of how far the FLIR gimbal has drifted off its line of sight due to some disturbance such as air vehicle maneuvers, vibration or turbulence. The FLIR gimbal is a motorized housing that points the FLIR and keeps it locked on target. If the gimbal drifts, the Dual Axis Rate Transducer (DART) senses and measures the drift and instructs the motors that drive the gimbal how far to move the gimbal to restore the proper orientation. The Westinghouse proposal received a red flag because the indicated rate error significantly exceeded that allowed by the solicitation. In addition, the Army found that the drift rate of the DART averaged 10 times the rate allowed by the specification.

Westinghouse acknowledges that the drift rate of its DART is higher than the purchase description allowed, but says that this would have no adverse effect on the ability of the FMPS to perform its mission. It emphasizes that its DART would prove to be cost effective. The Army says that such cost advantages are irrelevant because the Westinghouse DART would not perform adequately. The Army cites the drift rate required by the solicitation and says that significant departures from this rate will result in poor tracking of targets.

In our view, the essence of Westinghouse's argument appears to be that compliance with the drift rate specification is not necessary for overall performance. To this extent, Westinghouse either is presenting an untimely challenge to the requirements of the solicitation or is seeking a waiver of a requirement with which it admittedly does not comply. In any event, we have no basis upon which to question the agency's technical judgment that both the draft and error rates proposed by Westinghouse, which admittedly do not meet the specification requirements, would present serious operational problems.

### 2. Stabilization Errors

The Westinghouse proposal received a red flag because the evaluators concluded that the proposed design was unstable. The FLIR sensor is mounted on a gimbal for the purpose of movement in the "azimuth" (left or right) or

elevation (up or down). The sensor must be isolated from any aircraft vibration so that the image produced by the sensor will not be blurred. The SSEB, using three separate analyses conducted by a subcontractor and one apparently conducted by the agency's own experts, concluded that Westinghouse's proposed system will be marginally unstable in the elevation line of sight because the sensor will bounce up and down. It also concluded that the azimuth line of sight will be completely unstable because the sensor will oscillate to the left and right.

Westinghouse disagrees with the evaluators' findings based primarily on its view that the subcontractor's analyses contain at least 10 significant errors. The protester maintains that its system has been built and tested and argues that the data presented in its proposal conclusively substantiate that its design is stable.

The agency notes that Westinghouse has not actually built the exact system proposed and maintains that whatever errors were found in the analyses were either minor or worked to Westinghouse's favor.

It is clear that Westinghouse does not agree with the analyses conducted of its system. On the other hand, the agency evaluators must make their independent judgments of the risks inherent in a proposed design. They cannot just accept blindly a prospective contractor's conclusion that its design will work. We do not require that the evaluators' judgments be perfect, only reasonable. While we understand the protester's strongly held view that its system will in fact be stable, it has not convinced us that the four separate analyses, all of which reached the opposite conclusion, were simply wrong. Consequently, we think that the evaluators reasonably could have concluded that there was a substantial risk of instability in the Westinghouse design.

#### V. CONCLUSION:

From our review of the record as a whole, we cannot question the agency's overall conclusion that the proposed Westinghouse design carried a substantial risk of being

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overweight, not meeting performance requirements, or both.  
The protest is denied in part and dismissed in part.

  
Harry R. Van Cleave  
General Counsel