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R. Parlov

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**DECISION**



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

**FILE: B-190086**

**DATE: January 24, 1978**

**MATTER OF: Omni Spectra Inc.**

**DIGEST:**

1. Navy's decision to proceed with sole-source procurement where all known systems were technically evaluated and where it was found that only one system would meet its needs was not unreasonable.
2. Award of contract while bid protest was pending did not harm protester where sole-source procurement was justified.

Omni Spectra Inc. (Omni) protests the award of General Services Administration contract 00S44927 to Racon, Inc. (Racon), for microwave sensor systems as a result of sole-source negotiations under request for proposals (RFP) No. 50921-77-R-0163, issued to Racon on August 15, 1977, by the Naval Surface Weapons Center (NSWC), White Oak Laboratory, Silver Spring, Maryland.

Omni learned of the planned procurement by notice in the Commerce Business Daily, dated August 8, 1977, and on August 23, 1977, filed a preaward protest with NSWC. On August 30, 1977, NSWC sent to Omni a copy of the sole-source statement, approved July 21, 1977, along with appropriate portions of an Army's test report which, according to NSWC, "clearly pointed out the Omni Spectra System's shortcomings." The same day, the contracting officer called Omni and informed it that a package had been mailed which would fully explain the reasons for the sole-source solicitation with Racon.

On September 9, 1977, Omni filed a protest with our Office, alleging that:

" \* \* \* OMNI SPECTRA IS A QUALIFIED RESPONSIBLE SUPPLIER OF OUTDOOR MICROWAVE INTRUSION SENSORS AND OUR REQUEST TO BID ON THIS PROCUREMENT HAS BEEN DENIED BY THE PROCUREMENT AGENCY. THE PERFORMANCE REQUIREMENTS OF EQUIPMENT TO SATISFY THIS PROCUREMENT HAVE NOT BEEN MADE KNOWN TO OMNI SPECTRA."

A followup letter from Omni detailed its objections to the Army's test report. However, the record discloses that Omni failed to concurrently file a copy of the protest with the contracting officer as required by 4 C.F.R. § 20.1 (1977). The contracting officer, who was not on notice of the pending protest, awarded the contract to Racon at 10:30 a.m. on September 12, 1977. At 2:20 p.m. of the same day, NSWC received notice of the pending protest from our Office.

By letter to our Office, received on November 14, 1977, Omni raises new grounds for its protest, alleging (1) that the award was made 3 days before the closing date listed on the solicitation; (2) that the award was made while a protest was pending contrary to Armed Services Procurement Regulation (ASPR) § 2-407.8 (1976 ed.); and (3) that Omni received no notice of the decision to proceed with the award as required by that regulation.

Section 3-210 of ASPR (1976 ed.), entitled "Supplies or Services for Which It Is Impracticable to Secure Competition by Formal Advertising," provides in pertinent part:

"3-210.1 Authority. Pursuant to 10 U.S.C. 2304(a)(10), purchases and contracts may be negotiated if--

"for property or services for which it is impracticable to obtain competition."

"3-210.2 Application. The following are illustrative of circumstances with respect to which the authority of this paragraph 3-210 may be used:

"(i) when supplies or services can be obtained from only one person or firm ("sole source of supply");"

We have held that, in determining the propriety of a sole-source award under this section, the standard to be applied is one of reasonableness, and unless it is shown that the contracting officer acted without a reasonable basis, we will not object to such an award. Unique Packaging Sales Corporation, B-187122, March 23, 1977, 77-1 CPD 203. In Hayden Electric Motors, Inc., B-186769, August 10, 1977, 77-2 CPD 106, we said:

"\* \* \* we have held that a decision to procure on a sole-source basis will not be disturbed where a D&F to negotiate on a sole-source basis is supported, as in the instant case, by a record sufficiently establishing that the awardee was the only known source with the capability to satisfy the procuring activity's requirements. See Triple A Machine Shop, Inc., B-185644, March 25, 1976, 76-1 CPD 197."

For the following reasons, we believe that NSWC's determination that Racon was the only known source able to satisfy its requirements was reasonable.

NSWC set up certain "critical parameters for Navy installations," and all known microwave sensor systems, including Omni's, were tested and evaluated for performance in those key areas. The "critical parameters" were as follows:

- . maximum number of transmit modulation frequencies to preclude system interference
- . minimum antenna beamwidth to minimize interference from nearby objects and fences

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- . least susceptibility to EMI/RFI due to land, air, and shipboard radar and other local transmitters

- . highest probability of detection of human crawling targets for a required transmitter receiver separation of 120 meters

- . highest overall system reliability

It was determined that the Racon system was the best available microwave sensor for Navy needs and the only system which could meet the critical parameters. Omni disagreed, commenting on each of the five critical parameters. The Navy responded point by point to Omni's comments.

A. Maximum number of transmit modulation frequencies to preclude system interference.

Omni's comment--"RACON has four (4) modulation frequencies. Omni Spectra has four (4) modulation frequencies."

Navy's response--"WA-22 is aware that both RACON and OMNI SPECTRA have four each."

B. Minimum antenna beamwidth to minimize interference from nearby objects and fences.

Omni's comment--"The effective alarm beam widths of the RACON unit and the Omni Spectra unit are essentially the same -- 3% of the distance between the transmitter and the receiver."

Navy's response--"\* \* \* RACON and OMNI SPECTRA antenna half power beamwidths are 3.5 and 10 , respectively. \* \* \* RACON's 3.5 beamwidth allows RACON to be mounted closer to objects,

such as chain-link fences, than is possible with OMNI SPECTRA. \* \* \* nearby vehicles and windblown chain-link fences behind OMNI SPECTRA receivers cause alarms. Navy applications require that sensors be installed and operated near, between, and at corners of closely spaced chain-link fences. Alarms due to nearby vehicles and closeby fences cannot be permitted."

- C. Least susceptibility to EMI/RFI due to land, air and shipboard radar and other local transmitters.

Omni's comment--"Omni Spectra's microwave sensors have operated successfully in the RF environment described for over a five (5) year period. As a result of specific tests run by MERADCOM, Ft. Belvoir, and Sandia additional improvements to provide even better RF shielding of our units were made. These improvements were reported to both MERADCOM and Sandia in May 1977. Sandia retested the units with positive results, and this change is being reflected in an amendment to their Intrusion Detection Systems Handbook (SAND 76-0665), which is now in the process of being issued. MERADCOM, Ft. Belvoir, had no additional funding to perform any follow-up tests, and therefore unable to comment further."

Navy's response--"\* \* \* the latest available guideline, indicates that OMNI SPECTRA is susceptible to EMI and that manufacturer modifications have not been evaluated. \* \* \* rates OMNI SPECTRA 'poor' relative to EMI rejection. RACON is rated as 'good.' OMNI SPECTRA transmitters are also susceptible to EMI. RACON's are not.

"Navy security systems will, in many cases, be installed very close to land, air, and shipboard radars. \* \* \* the only available published data, indicates that OMNI SPECTRA is the most questionable of all microwave systems tested under 'heavy' EMI/RFI conditions. Not to mention sensor susceptibility to EMI damage. The Navy should use the system least susceptible to EMI/RFI especially for RSSPS applications."

- D. Highest probability of detection of human crawling targets for a required transmitter receiver separation of 120 meters.

Omni's comment--"Detection of crawling targets is directly proportional to false (nuisance) alarm rates on outdoor microwave sensors. If the sensitivity of the unit is set such that the ground is fully illuminated, thereby detecting prone crawlers, then the false alarm rate is increased. Test data results by MERADCOM substantiate this. During the period of testing by MERADCOM. 7 June 1976 to 1 December 1976 the following comparative results were obtained on the RACON and Omni Spectra units:

	<u>RACON</u>	<u>Omni Spectra</u>
1. % detection against walk and run	93.5%	95.2%
2. % detection against prone crawl	46.1%	16.4%
3. False alarms per hour	.029	.012

If a higher false alarm rate is acceptable, Omni Spectra's outdoor microwave sensors can be adjusted to provide better detection of prone crawlers."

Navy's response--" \* \* \* OMNI SPECTRA has a maximum range, including offset between the transmitter and receiver, of 50 meters for crawling targets. The Navy requires 100 meter crawler detection ranges not including transmitter receiver offset.

" \* \* \* results of systems tested in accordance with manufacturer recommended sensitivity settings, indicate crawler detection probability of 46% for RACON and only 16% for OMNI SPECTRA. Additional data \* \* \* indicate that during temperature tests, RACON detected 65% of all crawl attempts at ambient temperatures. OMNI SPECTRA detected 0%.

"WA-22 concurs that an increase in OMNI SPECTRA detection sensitivity would probably result in improved crawler detection and in an increase in false alarms. However, as mentioned previously, the 'detection zone' characteristic is modified by an increase in sensitivity \* \* \*. Therefore, the overall effect of a sensitivity change is not at all obvious at this time."

E. Highest overall system reliability.

Omni's comment--"The overall reliability of an outdoor microwave system is best proven by actual field experience. Testing at Sandia and MERADCOM necessarily consisted of a limited number of samples over a limited period of time. The U.S. Department of State, Washington, D.C. has procured (on a competitive basis) nearly 200 of Omni Spectra's outdoor microwave sensors, and has up to four (4) years field experience on these units. They are installed at U.S. embassies throughout the world. The U.S. Department of State has also procured a smaller number of RACON units. We recommend the comments of this agency be solicited in making a determination or comparison of

'overall system reliability.' Omni Spectra's outdoor microwave sensors also are currently providing protection for fifteen (15) nuclear power generating stations and nuclear materials processing plants, all with positive results. Some of these sensors have been in operation over five (5) years. Omni Spectra's overall recorded failure rate for outdoor microwave sensors has not exceeded 2%."

Navy's response--"\* \* \* OMNI SPECTRA receivers appear susceptible to EMI damage. This characteristic cannot be tolerated in Navy physical security systems."

It is therefore clear that Omni received full consideration for its system, but the Navy concluded that the Racon system was the only one that could meet all of the critical parameters. In this regard, we have held that in the absence of arbitrary acts, we will not disturb the purely technical judgments made by the procuring activities in the course of establishing specifications and determining compliance therewith, B-162403, February 2, 1968, since the overall determination of the relative merits of proposals is the responsibility of the contracting agency which must bear the major burden of any difficulties incurred by reasons of a defective evaluation. Training Corporation of America, Inc., B-181539, December 13, 1974, 74-2 CPD 337; Hawaiian Telephone Company, B-187871, May 2, 1977, 77-1 CPD 298. In this instance, we are unable to conclude that the Navy's decision to procure on a sole-source basis was unreasonable.

Regarding the arguments raised by Omni in its November 14 letter, assuming that they were timely, we do not believe that Omni was harmed by the manner in which the procurement was handled, since Racon was determined to be the sole source of supply and Omni was not eligible to compete for the award.

Accordingly, the protest of Omni Spectra Inc. is denied.

  
Deputy Comptroller General  
of the United States