ABSTRACT

The Oklahoma City Air Logistics Center (OC-ALC) of the Air Force Logistics Command (AFLC) has achieved in-house Value Engineering (VE) cost avoidance of $1 Billion for the period FY81-FY86. The contractor portion of VE contributed approximately $5 million during that same period. The problems identified as the causes for this inequity and recommended solutions are discussed, involving some suggestions for SAVE involvement.

I am pleased to have this opportunity to share with you some of my thoughts on the contractual aspects of Value Engineering (VE). Many of you, either directly or indirectly, work in support of the defense of our nation. We share a common interest in getting the best possible value for our defense dollars. I'm sure we also share the opinion that VE should fill a vital role as we strive to achieve that cost effectiveness within the defense establishment. I will discuss how the Oklahoma City Air Logistics Center is trying to make this a fact of life.

I find it somewhat amazing that the VE concept was developed by U.S. commerce, yet some 40 years later, very few corporations in this country formally employ VE. It is the exception rather than the rule to find an American firm employing full-time value engineers, training their engineers in the VE methodology, or openly supporting the VE program.

Japanese industries use VE as a specialized profession and include VE workshops in the training curriculum for all their new engineers. They use VE as an effective weapon in the war on cost and waste. It is a stalwart underpinning of their cost reduction program. The annual pilgrimage to this country of Japanese Value Engineers seeking to expand their knowledge of VE demonstrates the commitment and support of that country to VE.

They visit DOD and U.S. industries to review our achievements and learn if we have developed anything new in VE. It is ironic they should visit DOD to learn how we employ the VE methodology. It seems more appropriate for DOD personnel to visit Japan to learn how they implement VE.

I don't believe the VE success in Japan is because Japanese Value Engineers are better than their American counterparts. In my opinion, the problem is lack of management support and involvement. That is where we fall short.

As I see it, we must concentrate on two elements in our efforts to expand the base of VE in DOD:

1. We must employ an administrative system capable of timely, quality decisions relative to VE proposals and challenges.

2. We must create a conducive management environment for program success.

The first element, the administrative system, heavily depends on program integrity. There must exist a procedure to thoroughly review and investigate each proposal, and advise all parties concerned of the results. The results, when conveyed, must explain the facts of the case, the decision made, and the reasons behind the decision. The decision and the decision making process must allay any perception of bias or shoddiness and should show the marks of professionalism and integrity. This is where SAVE becomes most important.
SAVE has achieved one most beneficial accomplishment, certification. Certification ensures that a person attended a 40-hour workshop, passed a test, and probably has two years experience. Including a certified value engineer in the decision making lends credibility to any VE review process. This is a step in the right direction, but it's far short of achieving the full potential of SAVE. SAVE provides a potential forum to seek knowledge of other firms or agencies attitudes toward VE, to review procedures and practices used by other value engineers, and to make contact with persons in the decision making-gossip of VE. Of the two elements, contractors. This intelligence gathering and exchange of ideas provide a tremendous edge in the selling of a Value Engineering Change Proposal (VECP).

Knowing this, why is our ratio of implemented VE ideas not more impressive? This brings up the second key element, a conducive management environment. To build the necessary environment, first management must become knowledgeable of VE and the benefits it can bring. Once the knowledge exists, then commitment and involvement can be developed. This involvement must be demonstrated, not merely implied, and it must come from the top down. Finally, publicity of the VE program and its successes must occur to further demonstrate management support, reward participants, and otherwise spread the gospel of VE. Of the two elements, the administrative system and the appropriate management environment, management is by far the tougher nut to crack. When both elements come together, a VE program can begin to expand and thrive. But, the education and building processes require continuing. The infrastructure begins needing maintenance even as the superstructure is going up.

We at the Oklahoma City Air Logistics Center are aggressively attacking many of these problems. In calendar year 1986, we cosponsored two 40-hour Principles and Applications of VE (PAVE) workshops with private industry, one with AT&T and the other with General Motors. We also conducted workshops at Air Force installations: McClellan Air Force Base, Newark Air Force Station, and Tinker Air Force Base. In addition to the PAVE workshops, we presented four 3-hour briefings to our local Competition Advocate personnel. Finally, in April we cosponsored with the Dallas-Fort Worth Chapter of SAVE, a Triservice workshop at the Naval Air Station, Dallas.

One of our most important achievements in 1986 was the development of a two-hour seminar for upper level managers of Oklahoma City Air Logistics Center's major contractors. In the early 1980's, we conducted annual one day long VE Seminars for contractors which were generally attended by senior engineers and their immediate supervisors. Home attendance and enthusiasm were very good, but we saw no results in the form of increased VECPs. We found that our audience didn't need selling on VE, they already supported the program. It was their upper level management that needed convincing. To solve this problem, we went to our upper level management requesting their help in selling our program to their counterparts in industry. As a result, both Major General Bowden, the OC-ALC Commander and Brigadier General Searock, the OC-ALC Vice Commander, signed letters to the corporate presidents of our largest contractors requesting they invite our VE team to their facility for a two hour seminar. The team, consisting of the VE Program Manager and senior Materiel Management and Procurement managers, conducted ten seminars in FY86. The results have been most encouraging. One contractor submitted four VECPs and two Homestead Letters within two weeks following the seminar at its facility. If this is any indication, it demonstrates that upper management involvement and a positive attitude by the customer can and will pay off.

Processing VECPs is another factor that plays an important role in the success of our program. We developed a formal processing flow through each of the numerous organizations involved in the review and approval/disapproval procedure. With these formal procedures in place for processing of in-house and contractor VE proposals, we succeeded in compressing the total time required, especially for VECPs. Our goal is to achieve approval and contract change within 45 days after receipt of any VECP. We are fine-tuning the procedure and will continue to do so until we achieve the 45 day goal.

Sharing of validated VECP benefit dollars is spelled out by the Federal Acquisition Regulation (FAR). We as yet have not experienced problems with sharing. We realize, however, that the calculation of shares can introduce potential problems due to the complexities of the process. It is most important that both the submitter and recipient of a VECP feel the sharing calculations result in an equitable distribution of benefits.
Credibility is in the eyes of the beholder. Both the Government and the contractor must constantly guard the integrity of the VE program. Contractor personnel involved in VECPs must be intimately familiar with Part 48 and paragraph 52.248 of the FAR if they are to insure the integrity of their VE program. The Government contracting officer and VECP evaluation personnel must also abide by the FAR in their processing of the contractor's proposal. Knowledge of the FAR helps ensure VECPs prove beneficial to everyone. Ignorance of FAR can result in misunderstandings, dissatisfaction and adverse publicity which can damage program credibility.

To minimize misunderstanding, we believe the contractor should brief VECPs to appropriate customer personnel. Such briefings offer a forum for an open exchange of information. This exchange of dialogue can often prove to be the difference between acceptance and rejection of a proposal. It's just good business sense to sell your product as directly as possible to your target market. VECPs need marketing just like any other product.

Horror stories can damage both integrity and credibility of any program. Allegations, even some not related to VE but when shared with persons not knowledgeable in VE, can severely hamstring a VE program. Once a rumor or allegation grows to horror story proportion, it becomes imprinted in the mind and is most difficult to erase. This is a very real problem and the only solution is education. Regardless of the reasons, allegations must not remain unresolved. In my opinion, there must exist a focal point, an ombudsman if you will, responsible for reviewing allegations detrimental to the VE program. Until something formal is adopted, I am volunteering the services of the Oklahoma City Air Logistics Center's VE Program Manager, Mr Charles Barbieri. He will assume this ombudsman role and will work with other Air Force organizations, and, through HQ Air Force Logistics Command, with appropriate other DOD VE Committee members to try and resolve allegations. We will accept this added workload as a temporary assignment to demonstrate the need for such an effort. We also plan to request that all elements of DOD provide personnel to review allegations. Air Forces is not unique, all services experience losses in contractor participation due to misunderstandings, poor evaluation or improperly interpreted contract sharing.

In summarizing the Tinker VE efforts, I would like to point out that from fiscal year 1981 through fiscal year 1986, Oklahoma City Air Logistics Center achieved one billion dollars in VE savings. We are very proud of that accomplishment. However, contractor VECPs amounted to less than five million of that one billion dollars. This is an inequity we are striving to rectify.

Our objective is to establish the model VE program for all of DOD. We place high priority on achieving this goal because VE benefits contribute directly to an increased Air Force force structure and a stronger national defense. We also recognize the fact that a successful DOD program can influence management in commercial industry, thereby improving the U.S. competitive position in world markets. VE is not a cure-all, it will not solve all of our problems, but it does have the potential to significantly impact many of them.

How do I see SAVE fitting into the picture? Let me ask this: What are your collective objectives? What contributions have you made which will broaden the base of VE? If I may make a proposal, one area you can impact is knowledge through education. I was very pleased with the support of the Dallas-Fort Worth chapter of SAVE at the Triservice Principles & Application of VE workshop at the Dallas Naval Air Station. As an annual workshop, it could provide a forum for education, recognition, and public relations, all sorely needed to achieve our goals.

I would like to make another proposal: that SAVE promote a program for industry-DOD interface where corporate vice presidents could meet with DOD top managers to discuss VE problems, objectives and also promote increased use of the VE methodology.

In closing, the bottom line question is: Does VE offer adequate incentives for Government and industry to justify the special effort it takes? How we answer this question will determine the success of the VE program. We must convince upper level management the incentives and potential benefits justify involvement in and funding and promoting of VE. This shouldn't be too difficult, because VE is: GOOD ENGINEERING, GOOD MANAGEMENT, AND GOOD BUSINESS.