

## ACCOMMODATING CHANGE - THE ROLE OF VALUE ENGINEERING IN THE DEFENSE LOGISTICS AGENCY

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Rear Admiral Keith W. Lippert has been the commander of the Defense General Supply Center, Richmond, Va., a primary field activity of the Defense Logistics Agency, Alexandria, Va., since July 1993. Lippert earned his commission through the regular Navy ROTC Program, graduating from Miami University, Oxford, Ohio, with a bachelor of arts degree in mathematics in 1968. He holds master's degrees in management and operations research from the Naval Postgraduate School, and is a graduate of the Senior Executive Program in National and International Security at Harvard University. Lippert has served in a number of progressively more responsible positions, both at sea and ashore. His last assignment before assuming command of the center was with the Naval Supply Systems Command as the deputy commander for financial management/comptroller.

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### ABSTRACT:

Defense agencies, in this time of budget cutbacks and clouded future scenarios, must find innovative ways of meeting the commitment to fully support the Services' requirements. This paper explains the expanded role for Value Engineering (VE) in Defense Logistic Agency (DLA) and, in particular the Defense General Supply Logistic Agency, to enable the Agency to maintain our high level of support.

### INTRODUCTION

To understand the expanded role of VE in DLA, it is obviously necessary to know what its traditional role was and to understand the traditional role of VE in DLA, as opposed to that in the Services, it may be helpful to explain something about the mission of DLA. We were established in 1961 as the Defense Supply Agency to provide A supply support to the Military Support Services. We became the single manager for the Department of Defense to supply consumable items used by more than one Service. DLA's role has grown to include the business areas of contract management, technical and logistics services, physical distribution, and depot maintenance. Today it is a 12 billion dollar a year industry. The Defense General Supply Center, for which I am responsible, is one of six supply centers or inventory control points of DLA. We are located in Richmond, VA. We manage over 650,000 supply

items. That number continues to grow as we assume management of additional items previously assigned to the Services. We provide repair parts for more than 900 active weapon systems. In addition, we support our customers with a wide variety of consumable items such as electrical supplies and motors, lighting equipment and batteries, food services equipment, photographic supplies, petroleum products, and industrial plant equipment. We receive some 2.6 million requisitions a year which translated to over 1.1 billion dollars in sales for the past business year. We see our mission at DGSC, simply put, to provide our customers what they want, when they want it, at the best value. Our customers now have choices from whom to buy. We want to be their supplier of choice and, to do that we must keep our prices competitive.

### THE TRADITIONAL ROLE OF VE IN DLA

At DGSC, most of the dollars we spend go towards the acquisition of spare parts, so that is where our VE people concentrated their attention. They looked at how we were buying our parts. They found that frequently we were buying our parts from sole sources because we did not have any technical data and often, in these cases, we were paying exorbitant prices. So our VE people vigorously attacked this method of procurement. Much of their effort was directed at expanding competition, either by finding new sources, identifying actual manufacturers or building adequate technical data

packages through reverse engineering. We did some product improvement projects, but most of our opportunities for savings came from changing the way we bought items.

### NEW INITIATIVES FOR VE

#### Partnership with the Services

When Vice Admiral Straw took over as Director of DLA a couple of years ago, he was soon faced with a budget crisis of sorts. The Defense Management Review Team had identified several areas where they thought DLA could cut back on costs and DLA's budget was revised accordingly. As studies of this type tend to be, the method of calculating the savings to the budget was hazy and exaggerated. It became evident to Admiral Straw that the only way we could maintain quality support to the Services was to make some basic changes to the way we did business.

He saw in his initial briefings that VE was doing good things. Why not do more? But how best to do it? The Agency was receiving manpower cutbacks, so adding people to the VE Office was not an attractive alternative. Why not use the expertise of the Services to help solve problems on the items we manage for them? They know what parts are causing them problems, what does not work, what costs too much, and what does not last long enough.

We now have Memorandum of Agreement (MOA) with all of the Services which enable them to look at our universe of items to pick and choose projects. We are funding each of the Services, including the Marine Corps, \$1 million per year. We are after the "low hanging fruit." We ask that the projects submitted earn at least at 10:1 return on investment over the life of the item. We also require them to coordinate with the VE Office to avoid duplication of effort. This initiative got off to a rocky start because of complicated funding mechanisms, but we hope to hear of many success stories. We expect most of the savings to the Services in terms of decreased maintenance requirements. We are going to get private industry in on the act also. DLA directed our Center to develop and award a contract for breakout, value engineering, and reverse engineering based on the same principles as the MOA's with the Services. That effort is now well on its way.

#### Introducing New Products

For years and years the DoD has had an antiquated procedure for making new products available to service personnel. In the past, if a businessman came to us with a new product that did something better than anything we had in our inventory, we had to tell that person he needed to find a sponsor in the Military Services. If he could convince the sponsor that they needed the item, the Service would then have to come to us with a form describing the item and their requirement and requesting assignment of a National Stock Number (NSN). We would then put it in our system and buy to meet demands.

Telling them all of this was often the kiss of death. We never heard from them again. This meant many items that we were carrying were no longer state-of-the-art. They were "good enough," but we were not taking advantage of energy saving products or products more friendly to the environment. It also meant that when we went to buy these old products, which had been replaced by new versions, we had to pay more for them because they were no longer coming off the standard production line. At DGSC, we have become very proactive in searching for better products for our customers. We developed a catalog for energy efficient lighting and distributed it to our customers. Adoption of these new lighting products is already yielding savings of \$1.5 million per year. We are undertaking a similar effort with energy efficient motors.

We have introduced many products which contain fewer or no hazardous materials compared to their counterparts. The word is out in the business community that we are taking this approach and they are coming to us with their new products, such that it is a sizable workload for us now. We are finding that what we are doing is making good business sense. Customers whom we had lost are now returning to us because we are buying what they want. The VE Office has been very involved in this effort. The Business Opportunity Center has been the focal point for new products. VE has identified the energy efficient lighting components and electric motors and documented their technical characteristics and VE people help market the new products to our customers.

## Using Organic Manufacturing

Another area which we found profitable to place our VE resources is organic manufacturing. "Organic manufacturing" is our term for work which is done in-house in DoD facilities as opposed to the private sector. Sometimes, particularly for some airframe parts and aircraft components, we have a hard time making buys which meet our customers' needs. Particularly with older aircraft, we often find that the Original Equipment Manufacturer (OEM) and its subcontractors are no longer providing spare parts support. In responding to our requests for quotation, they quote excessive lead times, exorbitant prices or they don't bid at all.

When industry is deemed to be nonresponsive, and only then, procurement regulations allow us to use internal manufacturing resources to meet our needs. This is where our VE people come in. We have developed a process that matches the requirement, for example, a fairing for the F-14, with the DoD organic facility with the best capability to manufacture that item. Our VE people facilitate the process. They understand the capabilities of the organic activities. They handle any issues related to technical data. They monitor the status of work in process and they work problems when the process gets stuck. The key factor here is that by taking advantage of our in-house resources, we are able to avoid work stoppages in our programmed depot maintenance or avoid situations where aircraft are grounded or weapon systems are inoperable.

Before this initiative, we put the item on backorder and had to count on the good will of the original equipment manufacturers. We can understand their position. Many times, we only need a small number, of parts. It is very expensive to tool up for a small order and it is disruptive to production scheduling. That is why we often get quotes with a year or two production lead time tacked on. It is expensive for the Government to tool up also. Therefore, tied to this whole organic manufacturing initiative is the goal of developing flexible computer integrated manufacturing which will digitize all machine data so small orders can be handled quickly and economically. It is DoD's desire to transfer that technology to the private sector as it becomes available.

## Expanding the Price Challenge Program

The last initiative I will present where we are increasing the participation of our VE personnel is in

the expansion of our Price Challenge Program. For years the DLA Centers have participated in the Price Challenge Program. For those who may not have heard of it, the Price Challenge Program is a mechanism where our customers can challenge prices of the items they buy from us if they think the prices are out of line. It is our job to research that challenge and determine if, in fact, they were overcharged for the item. For example, should that ten dollar bolt really cost 10 cents or do the specifications for material and tolerances justify the 10 dollar price.

All of the Services have monitors for this Program. In the Air Force, this Program is known as "Zero Overpricing". In the Navy, the Navy Price Fighter Detachment in Norfolk runs the Program. An activity at Redstone Arsenal monitors the Army cases. This Program was first started not as a money-saving program but as a customer satisfaction program. We wanted our customers to know we were doing our best to keep prices in line. Most challenges come from items bought on contracts already delivered and closed, so if we feel we were overcharged, we have no legal way to demand restitution.

We must work with the contractor for a voluntary refund. We have people who are very good at doing that. We receive about a half million dollars a year in voluntary refunds. Not surprisingly, often what we found when we investigated the challenges was that there was a glitch in the system. We may not have been buying the right item. A less expensive one might do the job. We found there were lots of opportunities for VE projects to look into fixing the problem. We in DLA were wondering if we were getting all the benefits we could from the Program. We looked at our depot system and concluded that there may be opportunity to challenge the prices of items in those instances where depot personnel can see the item and the contract price at the same time. If we could get the challenge before our customer receives the item, so much the better.

We feel that we have an untapped resource for the Program. We recently developed procedures for the depots to use and we are now getting the word out. We are counting on our depot personnel's conscientiousness, backed by incentive awards, to make the expanded Program work.

## CONCLUSION

At DLA and DGSC, we view VE as everyone's job. We give all functional employees an orientation

on the principles of VE. We show them tips on how to spot situations with good VE potential. Many of our best leads come from outside the VE Office. By making everyone cost-conscious, we hope to continue to reap savings and take a big bite out of our VE universe.