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VALUE IN THE MILITARY

Army Ordnance Corps
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You men in military in Value Analysis and Value Engineering work are at one of the cross roads in history. Your work is that of doubling the armament. You will know that but others will not; hence your work will be hampered because the ability of Value Engineering to accomplish this objective is as yet unrecognized.

Your program is a 1,000,000 rounds vs. 300,000 rounds program. It is a 3000 missiles vs. 1000 missiles program.

Although Value Analysis and Value Engineering in the military is an "adequate weapons" program, it is still - in error - considered by many as a fringe "penny chiseling program."

Still, many men and managers in industry and in our defense areas will resist sharp definition of the problem, clean-cut gathering of information, and objective evaluation. Still out-moded cliches of thought and speech will heavily influence vital decisions.

"Costs are very secondary--it's performance that counts."

"Costs don't matter--we are dealing with men's lives."

Interpreted--these mean--"We'll polish the barrel of the gun for this man even though the next two go unarmed."

This outmoded thinking must go, and fast.

Value Analysis or Value Engineering work provides weapons using less United States resources--resources of labor and of materials. When--if that sad day comes--we are suddenly called upon to use these weapons, resources of labor and of materials will be instantly and devastatingly in short supply. Weapon will compete against weapon for these resources. Value Analysis now is a program directly oriented to achieve more weapons per unit of resources; hence, a program to limit the forced disarmament of our own forces in their time of greatest need.

For a general concept of the vitality and importance of now eliminating these non-working resources, consider all costs to be labor in some form at some stage--an assumption which is nearly correct. Consider labor and its tools at $5 per hour with engineering at $10 per hour.

Now, if 1000 hours of Value Engineering are used on a $100,000 weapon purchase and the result is the same defense for $50,000, the effect is. . .

1 - 1000 engineering hours expended save 10,000 labor hours.

2 - More vital still is the fact that, in the time of need, procurement is likely to be greatly increased--perhaps by a factor of ten, so that the 1000 hours of engineering time <u>now</u> invested provides 100,000 labor hours at a time when it is disastrously scarce to manufacture other weapons.

Let no one under-estimate the need, at this precise time in history, for Value Analysis in the military.

Furthermore, let no one over-simplify the problem. This "Double The Weapons" program is very difficult to execute. It is not especially difficult in the field of engineering and manufacturing technique, but is extremely so in the field of habit systems, thought systems, human emotion systems and procedure systems.

Of course, the need for top quality and increased reliability stands. Executing this program and accomplishing these objectives is predicated on completely equivalent or higher standards of performance and reliability.

What is not yet generally known is that quality and reliability are usually improved in a high-grade product as large amounts of unworking cost are identified by Value Analysis techniques and removed by engineering decision.

To supplement the examples you have here developed, are a few additional from military gear. . .

1 - This steel folding handle on electronic gear ... cost $8

This totally equivalent handle $2

2 - This filter circuit assembly . . . . . .cost $46

This totally equivalent filter . . . . . .$ 6.80

As a quality dividend, the former filter weighed 3 ounces,

the new filter . . . . . 1 ounce.

3 - This wound resistor divider . . . . . .cost $6

While the alternate developed by Value Engineering. . . cost 90¢.

Identical or better performance for one-half to one-fifth of the cost means two to five times as many weapons.

The kit of value oriented tools which you have learned here will identify large amounts of unworking costs and promote the development of engineering and manufacturing alternates to remove it. But, this is only part of the job. The remainder is the development of a decision-action channel which is value- as well as performance-oriented and will take action. To the extent you can--as you return to your vital responsibilities--provide information and development to men in the decision channels so that your work will, in truth, result in double the armament, you will have succeeded.

In conclusion, let us clearly view our joint philosophy of the use of Value Analysis and Value Engineering on weapons for the defense of the United States.

"In the military, money for defense is relatively fixed; hence, to continue unnecessary costs is a direct limiting of the number of weapons."

"A weapon 'destroyed' or 'prevented' by unnecessary cost injures the defense to the same degree as a weapon destroyed by enemy action."

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