

An engineer-turned-administrator, GE's Lawrence D. Miles has a new managerial technique that could slice much of the fat out of U.S. manufacturing bills — and ultimately boost profits and trim prices.



# Value Analysis: Assault on Bastions of High Cost

BY DAVID REES, Los Angeles Mirror Business and Financial Editor

MOST PRODUCTS made in the United States today could be turned out anywhere from 25% to 60% cheaper, according to a General Electric management and engineering specialist.

He's Lawrence D. Miles and he's making a name for himself nationally as "the father of Value Analysis," a new management technique that stands to revolutionize U.S. industry.

Miles contends that, fully applied, Value Analysis—alias VA—reasonably can be expected to cut this nation's manufacturing costs by 25% for consumer products, by 40% for industrial goods, and by as much as 60% for material turned out for the military.

Already a number of good starts have been made in slashing costs by using VA, Miles claims. Some examples:

Some 30% was whacked off the costs of the Air Force's F-105 fighter-bomber last year through the help of VA. General Electric Co., for example, cut \$3 million off the costs of its armament and controls for the advanced aircraft.

Some \$45 million was clipped off the cost of constructing new ships for the Navy in one year alone through using VA.

Immediately after VA was first applied to electric clothes dryers, GE trimmed the price by \$25, 10%.

The accomplishments of VA at GE are

most familiar to Miles because, as GE's manager of value service, he directs and encourages VA techniques throughout that industrial giant. Indeed, it was at GE in 1947 that Miles, an electrical engineer, first formulated his creative new VA attack on the ancient problem of costs.

Since then Miles, now aged 58, has supervised the training of 6,000 GE employees alone through VA seminars. Many of these have left GE taking VA with them to spread the new gospel throughout industry and the military services.

As the father of the revolutionary new profession of "value engineering," Miles has experienced first trials and then triumphs similar to those of Freud with psychoanalysis and Gilbreth with motion study.

"At first we were ignored," Miles recalls. "Then resistance sprang up. But now acceptance is starting."

To win this acceptance, Miles has delivered his message across the nation. Examples:

In Los Angeles he spoke to the American Institute of Electrical Engineers last Monday and to the management of Southern California Edison Co. Last month he addressed the National Assn. of State Purchasing Agents, composed of the top

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purchasing agents of 38 states.

For his work in helping establish the Navy's Value Analysis Office, Miles was awarded the Navy's highest civilian honor — the Distinguished Public Service Award. And now plenty of others are pitching in with Miles.

J.K. Fowlkes and Howard L.C. Leslie, whom Miles trained at GE, have formed Value Analysis, Inc., a management consulting firm here. It applies VA to problems and projects of client firms, such as Allis-Chalmers, Carrier Corp., International Telephone & Telegraph, Walter Kidde & Co.

Organizations, such as Northrop Corp., Hughes Aircraft Co., Martin Co. and the U.S. Army have become so enthusiastic about VA they've published their own manuals on value engineering.

The Society of American Value Engineers was founded last March, with Miles naturally its first president.

At latest count SAVE had 140 members representing 75 companies, Miles says. But he predicts 500 members a year from now, inasmuch as several thou-

sand firms now are using VA.

A Southern California SAVE chapter held its first meeting only last Thursday here, boosting Miles' total with 50 new members, representing a score of major defense firms here, reports SAVE regional vice president Anthony R. Tocco.

Speaker at this first meeting was James N. Davis, Deputy Assistant Secretary of Defense, who spoke on "Value Engineering in National Defense." He related value engineering to Defense Secretary McNamara's inefficient ones.

Value engineering was able to effect \$5.3 million savings at Hughes Aircraft in 1960, and over a three-year period averaged \$13 of savings for every \$1 spent on value engineering, says Tocco. He cites an example:

Redesigning a latch for Hughes Falcon missile shipping cases cut the cost to 30 cents from \$17, saving \$61,152 in one year alone.

Tocco, who had been Hughes corporate administrator of value engineering, now is head of value engineering for the Minuteman Project Office of Space Technology Laboratories. There he's working on the new direction of VA, which Miles says now is receiving increasing emphasis:

Instead of waiting to re-

design existing products, value engineers now are working "far upstream before the product is designed. They review a product's specifications from a VA viewpoint to see if the customer has over-specified — exceeded minimum requirements, and then they cut out the boiler-plate specs that only hike costs, Tocco says.

"In working upstream," he says, "VA engineers hit the specifications phase first and then the design phase as the design evolves from conceptual design to production design. If an efficient value engineering job is done in this way," Tocco contends, "most of the fat will be eliminated before a lathe turns."

"The military now is becoming very alert to the probability that with VA they will be able to get all the things they need for defense with the money that's available to them," Miles notes.

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