

Military Review

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The Battalion and



Major Gene T. Sherron, *United States Army*

COMMANDERS often find it difficult to get a unit "up" and keep it there. One possible solution is Zero Defects (ZD).

The ZD program originated in 1962 in the defense industry during the development of the *Pershing* missile system. From there, it was adopted by the entire US Army Missile Command, followed by the Defense Supply Agency. By late 1965, the Army Chief of Staff directed that the program be launched Army-wide covering all commands and headquarters.

A persistent brigade commander of

the 193d Infantry Brigade in the Canal Zone demonstrated how ZD could work in an infantry troop unit. Colonel Adelbert D. Boggs pointed out that, by definition, ZD was an individual program designed to get people to do their jobs right the first time, and he urged his commanders to conceive ways of implementing this materiel-type program in a troop-leading situation.

It was soon apparent that ZD is nothing more or less than a motivational approach to the elimination of defects attributable to human error.

ZERO DEFECTS

However, a person must be motivated before rendering wholehearted support to an idea. This is especially true of a pride of workmanship and self-interest program such as ZD. Strong commitment, direction, and support by commanders is essential to a successful ZD program.

To Err Is Human?

Throughout our lives, we are conditioned to accept the fact that we are not perfect and will make mistakes. However, we do not always allow the same privilege of imperfection for others. How many errors do you allow the pay clerk when it comes to your personal pay? When the military wife uses the car, would it be acceptable if she wrecks it only one out of 10 trips to the Post Exchange?

If these situations are unacceptable, then we can say that errors are a function of the importance that is placed on specific matters. In some areas, imperfections are acceptable; in others, the amount of defects must be zero. Through ZD, the attempt is made to motivate the individual to assign the same importance to his military activities as he does to his personal affairs.

As a realistic approach to carry out the basic goals and intent of the ZD program, the 193d Brigade developed a means of measuring the efforts of the units in ZD, and this system became known as the Unit Reliability Profile. It was the leader's job to motivate and keep the goal of "do it right

Major Gene T. Sherron is currently completing work on a Master of Business Administration degree at George Washington University, Washington, D. C. He is a graduate of the US Army Command and General Staff College, and served with the 4th Battalion, 10th Infantry, Fort Davis, Canal Zone.

the first time" in the mind of the soldier as he performed his duties whether they were in the field, at the motor pool, or behind a typewriter. Individual unit slogans are important also, and the 4th Battalion came up with, "Why do it twice—when once can suffice!"

With this profile concept, ZD was worked into everyday happenings and activities. In most cases, it actually became the basis for areas of command emphasis on the regular monthly battalion inspection and the quarterly brigade inspection. The measurers used to check or evaluate the units' progress toward the ZD goal were placed in the two categories of manpower reliability and materiel reliability. This gave a natural tie-in to unit readiness reporting as well as the materiel readiness program.

Dry Run Basis

The scoring system, perhaps the most complex feature of the program, was first checked out on a dry run basis to insure that the goals and standards were realistic to the units and not self-defeating. The scoring on the Unit Reliability Profile (see chart) emphasized the goal of "O" as perfect. Scoring to the right was undesirable, and reaching 100 was regarded as unsatisfactory. Additional bar lines appearing on a unit's chart indicated they were further away from ZD. Some categories provided for scores in increments of 10, others were by thirds, and some were such that one defect rendered the category as unsatisfactory.

Standard checklists such as local directives, Army regulations, and Department of the Army pamphlets were used to score the different categories whenever possible. The command

UNIT RELIABILITY PROFILE											
Unit						Period					
CATEGORY	PROFILE SCORE										
	ZERO DEFECTS						UNSATISFACTORY				
	0	10	20	30	40	50	60	70	80	90	100
MANPOWER RELIABILITY											
DEPARTMENT OF THE ARMY FORM 2715 (1 substantive error or 3 administrative errors is unsatisfactory)	<i>NOT SCORED (BATTALION ONLY)</i>										
FUNDS ADMINISTRATION (5 errors in procedure or computation is unsatisfactory)	██████████										
IMMUNIZATION (3 errors in shot records per 50 men is unsatisfactory)	██████████										
INJURIES (1 injury per 10,000 man-days exposure is unsatisfactory)	██										
MARKSMANSHIP (100 percent is Zero Defects. 80-percent qualified is unsatisfactory)	██████████████████										
MESS ACCOUNTING (5 deficiencies on the command best mess checklist is unsatisfactory)	██████████										
MORNING REPORTS (1 error per 10 entries or a 10-percent error rate is unsatisfactory)	<i>ZERO DEFECTS</i>										
PAY VOUCHERS (1 error per 100 vouchers is unsatisfactory)	<i>ZERO DEFECTS</i>										
TRAINING RECORDS (5 deficiencies on the brigade training inspection list is unsatisfactory)	██████████████████										
UNFAVORABLE INCIDENTS (10 delinquency reports per 200 men is unsatisfactory)	██████										
MATERIEL RELIABILITY											
ACCIDENTS (3 accidents per 10,000 miles is unsatisfactory)	<i>NOT SCORED (BATTALION ONLY)</i>										
DEPARTMENT OF THE ARMY FORM 2406 (1 substantive error or 3 administrative errors is unsatisfactory)	<i>NOT SCORED (BATTALION ONLY)</i>										
COMMUNICATION EQUIPMENT (1 deficiency or 2 shortcomings is unsatisfactory)	██████████████████										
LOG BOOKS (1 deficiency or 3 shortcomings is unsatisfactory)	██████████████████										
REPORTS OF SURVEY (1 substantive error or 3 administrative errors is unsatisfactory)	<i>ZERO DEFECTS</i>										
VEHICLE TECHNICAL INSPECTIONS (1 deficiency or 10 shortcomings is unsatisfactory)	██████										
WEAPONS TECHNICAL INSPECTIONS (1 deficiency or 10 shortcomings is unsatisfactory)	██████████										

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ZERO DEFECTS

maintenance management inspection (CMMI) checklist was used for the weapons and vehicle categories. Where necessary, items were added to and deleted from the categories as experience was developed in the various areas. Deleted from the list was

The adjutant became the real expert on funds administration because it was he who checked them on the battalion inspections. The battalion surgeon was able to get better results from his aidmen who were assigned to the companies when he held them re-



Courtesy of author

Wide publicity was given to individuals, such as Private First Class L. J. Cumbie, 518th Engineer Company, who personally were responsible for Zero Defects in their duties

the entry on pay vouchers when the battalion pay clerks were consolidated at brigade. Also, the injury and accident rate had to be moved to brigade for scoring since the safety recording at Army Headquarters was not geared to the company level.

The officers and men of the S3 and S4 sections took special pride in their respective forms with full credit going to them if the errors were zero.

responsible for keeping the soldiers' immunization records up to date. This led to competition between company aidmen. The surgeon, as a member of the inspection party, was able to praise the work of the aidmen in the presence of their fellow soldiers. One company of the battalion won the US Army Forces Southern Command Best Mess Award as a result of the emphasis created through ZD.

Drivers took great pride in both log books and maintenance when they knew that good work was going to be publicized. Whenever an individual accomplished a ZD in a category for which he was personally responsible, his name would be on every bulletin board in the brigade. In the area of weapons, the company armorers were able to develop an unusual proficiency in small arms repair through the rapport they developed with the direct support ordnance unit on the post.

The S4 worked out a special, informal arrangement that caused the ordnance repairmen to make visits to the arms rooms and thus check the weapons and records. Concurrently, they were training the armorers as to their responsibilities in the different echelons of maintenance. By using CMMI standards and checklists, the individuals were confident when the day came for annual general inspections (AGI's) and CMMI's, for these were the standards to which they had now become accustomed.

Although the scoresheet conveys the idea that the companies were rated individually and, in turn, a composite score resulted in the battalion rating, the program was not used as a "report card" for the company or battalion commander of the unit concerned. If it had been treated as an evaluation technique for commanders or a censuring device for soldiers, the program surely would have failed. It was for

this reason that the completed scoring sheets had limited distribution, but honor was given to those soldiers who were responsible for ZD in their category.

On a monthly basis, the brigade published a ZD bulletin which showed the individuals, by name, who had personally been responsible for achieving ZD in vehicle technical inspections, morning reports, and equipment log books. Also, the companies with ZD in certain categories were recognized.

The success of the ZD program within the brigade was easily measurable by comparing the scores over any six-month period. During the first check, every company in the battalion showed improvement and the average was a 50 percent improvement by category. Yet the fringe benefits of this type of program often overshadow the planned objectives. The care, attention, and interest demonstrated by the "doers" tended to keep their activities almost constantly ready for unannounced CMMI's and AGI's.

ZD is not a cure for all the ills of a command, but it is a leadership tool. It is a continuing program and needs a new start from time to time. It is an excellent device to focus attention on the individual and the little items that go to make an effective unit. The success in Zero Defects will be in proportion to the amount of interest and enthusiasm displayed on the part of the leaders in the chain of command.

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