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UNITED STATES GENERAL ACCOUNTING OFFICE

WASHINGTON, D.C. 20548

LOGISTICS AND COMMUNICATIONS
DIVISION

B-146856

74-0420

SEP 12 1973

The Honorable
The Secretary of Defense

Attention: Assistant Secretary of Defense
(Installations and Logistics)

Dear Mr. Secretary:

Beginning in January 1973, GAO visited selected Army, Navy, and Air Force installations to evaluate their procedures for providing common handtools to civilian and military personnel. During calendar year 1972, the Department of Defense (DOD) purchased handtools valued at about \$25 million for new requirements or for replacements of worn, lost, or stolen tools.

The services used primarily two methods of issuing and controlling these tools: (1) issuing a toolkit to each worker and making him accountable for it and (2) issuing composite toolkits (CTKs) to various maintenance units and making supervisors accountable for them. Because of the sizable savings and other benefits by using CTKs, we are bringing this to your attention for possible use throughout DOD.

An individual toolkit contains all the common handtools, such as screwdrivers, wrenches, hammers, and pliers, which a worker needs. It can also contain tools unique to a trade or a worker's skill and tools normally issued as a kit. Generally, these kits are neither shared with other workers in the same vicinity nor used by other workers during a follow-on shift. Tools are replaced on a one-for-one basis when they are lost or broken; but no records are kept because of their low unit cost.

CTKs eliminate individual toolboxes, reduce the number of tools required, and provide greater control over them.

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Typically, CTKs are designed according to task location and contain sufficient numbers and types of tools to support the needs of a group of workers. They are generally made up of shadow boards (boards with silhouettes of each tool) for easier inventorying.

Several Air Force commands, including the Air Training Command (ATC), Tactical Air Command, and the Air Force Logistics Command (AFLC), have, to some extent, adopted the CTK concept.

ATC recently tested CTKs in both field and organizational maintenance squadrons at Randolph Air Force Base. Test results showed that CTKs (1) worked equally well in shops and on the flight line and (2) could be easily adapted to the civil engineers and communications maintenance activities. As a result of the test, ATC instructed its activities to start using CTKs by April 1973.

A Tactical Air Command Wing at Nellis Air Force Base has been using CTKs for about 3 years. It replaced 1,150 individual toolboxes with 170 CTKs. Total tools issued decreased from 215,400 to 51,600.

AFLC first tested CTKs at the Oklahoma City Air Materiel Area in 1972. The results included:

- No record of foreign object damage during test.
- A daily record, by shift, of tool control and ready inventory.
- A more complete set of tools than had been available to each worker.
- Surplus tools which allowed for faster replacement of unserviceable tools.
- Potential savings in tool inventory.

In April 1973 AFLC advised its other Air Materiel Areas to use, without exception, CTKs for civilian and military workers in AFLC maintenance activities for the following reasons:

1. To reduce tool procurement by eliminating individual toolboxes, minimize the time required for tool inventory, and insure maximum use.
2. To minimize foreign object damage by "at a glance" tool inventories and thus insure that no tools are left in the aircraft or engine.
3. To increase productivity by making tools readily available to the user.

The decision of the above Air Force commands to use CTKs instead of individual kits has resulted in verified decreased costs, improved tool control, and improved performance. It is possible that similar results could be expected if all appropriate DOD maintenance activities used CTKs. For example, other Air Force commands, the Navy, and the Army use individual kits even though they perform functions identical or similar to those of other activities already using CTKs.

--Maintenance officials at Castle Air Force Base, a Strategic Air Command (SAC) base, said they would be interested in using CTKs in their maintenance operations but could not do so without headquarters instructions. They said they would welcome any system that would control tool losses and reduce foreign object damage.

Using CTKs would significantly reduce costs. Since maintenance chiefs at both field and organizational maintenance squadrons estimate only 60 percent of their men work on the largest shift, at least 40 percent of the 900 individual kits are now idle. They also estimate only 20 to 30 percent of the tools in a typical individual kit are used during a shift.

SAC initially tested CTKs at the squadron level at Beale Air Force Base. A SAC official said CTKs worked so well--even during development--that the squadron continued using them. SAC plans another test in 1974 of CTKs; if results are favorable, all SAC bases may use them.

- A training squadron at Lemoore Naval Air Station has been using CTKs. Two other squadrons are in various stages of implementing the CTK concept but 18 operational squadrons are still using individual kits.
- At the Naval Air Rework Facility, Alameda, California, an official estimated that between 2,000 and 2,500 individual kits were issued. This facility overhauls and repairs aircraft, engines, and components much the same as Air Force depot maintenance activities which are now converting to CTKs. According to the AFLC study, using CTKs could reduce the number of handtools by about 60 percent and toolboxes by about 80 percent.
- At Sharpe Army Depot, the Directorate of Maintenance overhauls and repairs helicopters, fixed-wing aircraft, engines, and heavy equipment. This Directorate said that it had issued individual kits to about 500 civilian employees. Here also they are performing functions similar to those of the Air Force maintenance activities which have been directed to use CTKs. The Army Aeronautical Depot Maintenance Center at Corpus Christi, Texas, and Tooele Army Depot, Utah, issued about 2,200 and 1,000 individual tool kits, respectively, to maintenance employees.

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We plan no further work on this subject at this time. Using CTKs is an effective alternative to issuing individual toolkits, and we believe that substantial savings are possible if DOD expanded CTK use at other selected Army, Navy and Air Force maintenance and support activities.

B-146856

We are bringing this matter to your attention and shall appreciate receiving your comments. If you, or any members of your staff, have any questions, we shall be pleased to discuss them in greater detail.

Sincerely yours,

A handwritten signature in cursive script, appearing to read "F. J. Shafer".

Fred J. Shafer
Director