

19 APRIL 97

FINAL REPORT

Air Force Engineering Data Group
Action Item 94-9

SUBJECT: Cataloging Identification Concerns

1. The government, through a 1952 public law, has a system of assigning stock numbers to parts in the government inventory for identification and stock control purposes. That law also sought to standardize and reduce the number of parts in the inventory. Later laws and directives require the system to show sources, and for the system to be interfaceable with other information systems. This report finds the stock number system inadequate to fulfill those directives. Findings are:

a. Users of the stock number system find the system confusing, conflicting, and inadequate. In 1996, the Air Force Logistics breakout screener organizations reviewed \$6B in stocklisted items for procurement advisement, and had problems with obtaining clear and accurate data.

b. System does not provide identification of items. Identification consists of the DoD and Industry standard system for identifying items, which is the combination of the item's part number and who created that part number. No provision is made for identification of the parts stocked under the stock number.

c. Has no system for showing the current owner of the specifications or manufacturing data for the part.

d. Has no system for showing sources for stocklisted parts.

e. Does not interface with other information systems, such as the parts lists in technical manuals and drawings, and with configuration management systems.

f. The "CAGE code" column is undefined as to its function, such as the CAGE code permanently assigned to the part, or current owner of the drawings, or a manufacturer of the part, or a vendor for the part, or approved government source for the part, etc.

g. Entries are found in the "part number" column that are not part numbers.

h. There is no drawing number column, and drawing numbers are often found entered in the part number column, which is often mistaken for a part number.

i. The system has goals for increasing the number of part numbers in the inventory, which runs counter to public law to reduce the number and to standardize parts. This stated goal appears to be intended to comply with the number of sources for parts, but the number of sources and number of part numbers are unrelated. There is no system for showing sources in the stock list system. Misleading reports are sent to high levels of DoD and government allegedly showing an "improvement" in competition through an increase in part numbers, when in fact such increase shows lowered compliance with standardization.

2. Primary causes for the above inadequacies are as follows:

- a. Failure to modernize the 1950s 80 column card database design with an adequate number of data elements.
- b. Failure to adhere to mandatory database design rule of "single meaning data elements".
- c. Continued use of outdated and ambiguous 1950s terminology.
- d. Peer group belief that the system is working and only trained people can understand impedes efforts to improve customer product.
- e. Practices followed by stocklist personnel are conveyed verbally or through training, and not documented.
- f. Stock number personnel are untrained in DoD and industry item identification.
- g. System's obscure, and conflicting documentation is too illogical for customer understanding, gives appearance of a complex system, and discourages customer feedback.
- h. Customer feedback and needs are disregarded.

3. Recommendations:

- a. As minimums:
 - (1). Establish a definition for the current CAGE code entry regarding its function.
 - (2). Retrain stocklist personnel that, by existing data element definitions, the reference number column permits only "numbers that identify items of production", and no other numbers or entries; and that "Reference Number Variation and Category Codes" apply solely to the "Reference (Part) Number" and has no documented relationship to the CAGE code.
- b. Modernize the stock number data base by adding the necessary data elements for complete identification for each part stocklisted under a stock number, such as assigned part number, assigned CAGE code, and current owner CAGE code. Add such other data elements as drawing, sources for each part, performance specification item identification for performance based acquisition, and specification CAGE code.
- c. Use the CALS compliant system of item and drawing identification as established by DoD-STD-100. (NOTE: This system has been used for 38 years by DoD, except for the stocklist system.)
- d. Retrain stock number personnel in the basics of modern item and drawing identification as used by their customers and external information systems.
- e. Prohibit current obsolete stocklist data element definitions from being entered into national data element dictionary in order to prevent corruption of our DoD information systems. (NOTE: This has already occurred in some instances.)

4. Background materials are available upon request.

Action Item Focal Points:

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