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CATALOGING AND STANDARDIZATION OBJECTIVES AND THEIR IMPACT ON DISTRIBUTION SYSTEMS

9 April 1953

1849

CONTENTS

	<u>Page</u>
INTRODUCTION--Captain Henry E. Richter, USN, Member of the Faculty, ICAF.....	1
SPEAKER--Mr. Nathan Brodsky, Deputy Director, Defense Supply Management Agency, OSD.....	1
GENERAL DISCUSSION.....	13

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RESTRICTED

RESTRICTED

1850

Mr. Nathan Brodsky, Deputy Director, Defense Supply Management Agency, OSD, was born in Philadelphia, Pennsylvania, in 1916. He was graduated with honors from Temple University in 1937 and he completed his graduate study in the Field of economics at the University of Pennsylvania and the American University. Mr. Brodsky completed the officers Special Course at the Quartermaster School in 1941 and the Services of Supply Course at the Command and General Staff School in 1943. From 1941 to 1943 he taught at the Quartermaster School. He then served in the Pacific Theater for 30 months, first as executive officer in the Supply Division, Headquarters SOS, South Pacific Area and later as chief of the Supply Division, Co. 4, Headquarters, South Pacific Base Command. From 1946 to 1948, he was first chief of the British Dominions and India Branch of UNRRA and then chief of the Procurement Coordination Branch. He has been with the Munitions Board since 1948. One of the first details after joining the Department of Defense was to assist the Hoover Commission Task Force on Federal Supply Management. He recently accompanied a congressional subcommittee on its investigation of supply activities overseas. He was assistant to the vice chairman for Supply Management, Munitions Board, until 27 August 1952, when he assumed his present duties. He is author of a United Nation's monograph and of several articles in the fields of economics and supply management.

RESTRICTED

RESTRICTED

1851

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CAPTAIN RICHTER: Admiral Hague and gentlemen: I am sure by this time we all realize that the subject of distribution logistics has many ramifications and covers many fields. Our previous speakers have developed various problems that indicate the great interest and the great controversy that goes on in the military services in this particular area. This morning we come to the last presentation in this course, but I assure you most emphatically that it is not the least because it is placed last. It is one that is presently getting a great deal of concern and demanding the thought and effort of a great many people.

We have this morning Mr. Nathan Brodsky, Deputy Director of the Defense Supply Management Agency. He will speak to you on the subject, "Cataloging and Standardization Objectives and Their Impact on Distribution Systems."

Mr. Brodsky is making his return engagement to the college. We are very happy to have him.

MR. BRODSKY: That was a very gracious introduction. It reminds me of one of Mark Twain's quotations of the man who said in introducing him: "Here is Samuel Clements. I know only two things about him. One, he has never been in jail; and, two, I don't know why."

Gentlemen, I have followed the activities of your college very closely, cognizant of the fact that this institution is developing the professional business managers that are required in the Defense Department. When I spoke to your predecessor class on a related subject last year, I emphasized the need for a better understanding of the military-economic relationship. I would like to stress that point again, knowing that it is at the very heart of your curriculum.

I need not tell you of the increasing necessity for a combination of efficiency and economy in defense supply management operations. Our military supply operation is the largest business in the world. Those who are charged with administering it must face the tremendous responsibility of balancing military-economic considerations. We all know that we have, in essence, been fighting a two-pronged war--a cold war and an economic war. Failure to win the economic war could well jeopardize our success in the cold war or any future possible hot war.

RESTRICTED

RESTRICTED

1852

The Congress for several years has been stressing the necessity for achieving efficiency and economy in military requirements, military procurement, and military distribution activities. Our subject this morning relates to this search for a means of obtaining efficiency and economy, for the cataloging and standardization programs provide the tools which are basic to any substantial savings in our supply operation.

The subject of cataloging has received wide publicity. Early efforts to establish some sort of catalog date back to at least 1914. The Hoover Commission, in its Task Force Report of January 1949, stated, "The numbering, identifying, classification and description of items of supply and their inclusion in a catalog appear, at first glance, to be matters of only academic interest. On the contrary, the adoption and use of standard nomenclature is the very essence of an efficient supply system. Without such common language, an effective program of personal property management borders on the impossible in an operation so vast as that of the Federal Government. With it, order can replace the current disorder in computation of requirements in relation to inventories and operating programs; procurement; storage and issue; disposal; and other phases of the supply function. Development of standard nomenclature and classifications is also important for our national defense and for the successful administration of our aid to foreign countries. Preparedness and order demand that appropriate tools should be ready for use in a national emergency."

Earlier studies made by the Committee on Commodity Cataloging and the United States Standard Commodity Catalog Board concluded that there were 17 unrelated systems for identification of supplies in the Army, the Navy, the Air Force, and the Federal Supply Bureau; and that in these systems there was no uniformity of groupings, classification, numbering, and so on.

Largely as a result of the Hoover Commission Report, Congress assigned to the newly created General Services Administration (GSA) in 1949 the responsibility for establishing a Federal catalog system; and GSA, in consonance with the authority which had been granted to it by the Congress, redelegate its responsibility to the Munitions Board, and provided full authority to develop a Federal catalog system.

You are all aware of the fact that the Congress was dissatisfied with the progress of this program; it held extensive hearings in the early part of 1952. These hearings were accompanied by a nationwide interest in an exhibit referred to in newspapers, magazines, and radio as the "chamber of horrors." The exhibit was designed to display the purchase of identical items at different prices and also the use of different specifications for the purchase of the same item. The congressional committee investigating this problem stated that the Munitions

RESTRICTED

RESTRICTED

1853

Board standardization and cataloging program had proved a failure, that identical items were not brought together under a single identification number, and that different specifications were being used for the purchase of the same type of items. As a result of these hearings, Congress passed Public Law 436, the Defense Cataloging and Standardization Act, which established the Defense Supply Management Agency. The President approved the act on 1 July 1952; and the agency was officially established on that date.

Now, let us look at Public Law 436, not from a legalistic point of view, but from a supply point of view. What does 436 mean?

Quoting from its preamble, its purpose is:

"to provide for an economical, efficient and effective supply management organization within the Department of Defense through the establishment of a single supply cataloging system, the standardization of supplies, and a more efficient use of supply testing, inspection, packaging, and acceptance facilities and services." That is the preamble of Public Law 436.

The law provides for the appointment by the President, with the consent of the Senate, of a director and a deputy director appointed by the Secretary of Defense. The director is given authority to make final decisions in all matters concerned with this program--and that is extremely important--subject to review and modification only by the Secretary of Defense.

In cataloging the agency is directed to name, describe, classify, and number each item repetitively used, purchased, stocked, or distributed in the Department of Defense, and to name these items in such manner that only one distinctive combination of letters or numerals will identify the same item. This single item identification is required for use in all functions of supply from original purchase to final disposal. The law also provides that additional information will be included in the catalog, such as descriptive information, performance data, weight, cubage, packaging, and any other related data which in the discretion of the Director of the agency he believes will be necessary and useful for supply purposes.

Following the publication of the Single Supply Catalog, the law provides that only those items of supply which are listed in the Single Supply Catalog shall thereafter be procured for repetitive use. That is extremely important.

That is a brief discussion of the cataloging functions as provided for by Public Law 436.

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With respect to supply standardization, the law directs the agency to achieve the highest practicable degree of standardization through the development and use of single specifications; the elimination of overlapping and duplicating specifications; and the reduction of the number of sizes, kinds, or types of generally similar items. Also the greatest practicable degree of standardization of methods of packing, packaging, and preservation is required, together with the most efficient use of services and facilities concerned with inspection, testing, and acceptance of such items.

This brief analysis of Public Law 436 should make it clear that, for the first time in the history of unification, an agency was established to provide the necessary tools for efficient supply management, under a director who is given authority to make decisions.

Now, what is the significance of this legislation? What has it done?

Passage of Public Law 436 initially dispelled any notion that the cataloging data which had been developed over the last few years would not be utilized; and it created a climate within the Department of Defense which was favorable to the speedy installation of the Single Supply Catalog in all supply operations.

Many wheels had been put in motion in the Defense Department and in the civilian agencies to develop catalog data over a number of years, but there were still misgivings in the minds of many that those data would ever be used. The passage of this legislation dispelled any such notion.

The law also gave the necessary impetus to the integration of the cataloging and standardization programs. I think it is fair to say that prior to the passage of Public Law 436 the cataloging and standardization people in the Defense Department had only slight acquaintance with each other. Their programs were not coordinated. Public Law 436 provided the impetus to tie those two integral programs into a common goal. The mutually supplementary nature of these programs has been recognized; and we have developed joint procedures for the simplification of items of supply and the reduction of the number of sizes and kinds of items to be published in the various sections of the catalog.

Public Law 436 also provided the impetus for decentralization of responsibility to the military departments and the establishment of schedules for the completion of assignments. It is now possible for the director to make an assignment of an important area to a tech service, bureau, or command and to hold that tech service, bureau, or command responsible for carrying out that assignment with the technical aids that it has.

RESTRICTED

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1855

We have also been able to establish schedules for the completion of this program. Prior to Public Law 436 there were several schedules, none of which were followed too closely.

As a result, therefore, of the passage of this legislation, the Defense Supply Management Agency has been able to lay out a specific program for the publication of cataloging data. We have been able to plan for the conversion of military supply operations and records to the exclusive use of this catalog data, replacing the several cataloging systems in use.

The program established by the Defense Supply Management Agency is extremely important to the success of military operations. It is also important to the taxpayer. We believe that when the program reaches maturity, it can produce savings for the Government running into billions of dollars. We are confident that we are obtaining immediate savings in many areas and that we are laying the groundwork for continuing and enlarged savings in the years ahead.

Cataloging

I would like to take a few minutes to speak about the cataloging program first and then the standardization program, describe what we do and relate these to the distribution systems.

On the assumption that few of you have been engaged in cataloging operations, I would like to simplify the operation. Cataloging is the identifying, describing, and numbering of items of supply. To illustrate, the term "cap" must be described so that the reader of the catalog (who will use it for purchasing, storing, distributing, and so forth) knows whether you are speaking about a bottle cap, headgear, radiator cap, or gasoline tank cap. Having identified it adequately, we then want one identification number which will be used thereafter with respect to that cap. While it sounds simple, we must keep in mind that we are speaking of millions of items, many of which may seem identical but require engineering research to determine whether they actually are. Two bolts which look identical may have varying heat-resistant characteristics. We must identify with certainty.

After each item has been identified by a single name, a single description, and a single number, groups of items must then be brought together into homogeneous units for supply management purposes. In other words all food items must appear in one group, all medical items in still another, common hardware in still another. This, too, is extremely important, for if the millions of items are not grouped properly, then effective supply management is impaired. The grouping,

RESTRICTED

RESTRICTED

1856

obviously, is necessary for purposes such as inventory control, purchase assignments, and other supply management functions.

Cataloging is, then, the tool for identifying the millions of items, worth billions of dollars, which are thought to be different because names, descriptions, and stock numbers are not uniform. Only through the process of positive item identification can identical items be discovered and consolidated.

What can a Federal Supply Catalog help accomplish? The following are some of the advantages for procurement and distribution:

Contact with industry can be facilitated because of positive identification of what is wanted. Department of Defense efforts toward significant unification in military procurement, warehousing, transportation, and distribution can be accelerated. Obviously, with a common language, the difficulties of unification become lessened.

By positive identification, the Government can determine the primary source of supply. In this way excessive prices which might be paid to middlemen can then be eliminated. You are aware of the fact that there has been a great deal of congressional criticism of purchases by the military from secondary sources.

Procurement costs can be reduced through the purchase of interchangeable items available at lower prices. With the knowledge of interchangeability, we can seek items which are available at the lowest price.

With respect particularly to distribution systems, the number of kinds of items needed in the supply system to meet military requirements can be reduced. If you have positive identification, you can reduce the number of kinds of items that are required to meet a military requirement.

Because of reduced inventory, savings in storage space and construction funds can be effected. Because of a knowledge of what you have on hand and because you put your material to maximum use, obsolescence can be minimized. You will have under a good cataloging system a means for encouraging rapid turnover of your material and a means of making maximum use of existing stock. That is one of the best guarantees against obsolescence in the stock.

Military effectiveness and mobility of our fighting forces can be increased because of less variations in materiel and greater usability of stocks. It is not the commander who has the most stock who is the most effective. It is the commander who has the best grouping of stock to meet his needs that is effective. If by positive identification we

RESTRICTED

RESTRICTED

1857

can assure the command that it knows what it has and that it gets what it needs, we can increase mobility and reduce the amount of stock that has to be carried.

And, finally, cataloging is an essential for standardization; and standardization is a big area which we shall discuss later.

It is important, however, to keep the subject of cataloging in proper perspective. A single supply catalog is essentially a tool, a tool of supply management. It is not a universal panacea. Basic improvements in the functions of supply, such as requirements determination, procurement, storage, warehousing, testing, and so on, do not arise automatically from the creation of a single catalog. The catalog can, however, insure that efficiency in these functions is promoted through the provision of adequate identification of items. In other words the cataloging activity will provide the tool; but there are still many improvements in procurement, requirements determination, and distribution which must be effected before truly efficient supply management is realized.

The main effort of our cataloging program at the present time is directed toward examining accumulated data. This determination has two principal phases. The first is the one which we might call the pure cataloging phase. In it the data are checked for adequacy and accuracy and it also includes provision for items which have not yet been cataloged. The second phase, the simplification phase, is the examining of these items which have been listed to determine the functional necessity for all of the items, in an effort to reduce the variety.

We are placing emphasis on the common-use items first, with the more complex items to follow. You probably are all aware of the fact that the first area which was completed under this plan was subsistence. Other commodity areas, which are in various stages of completion, are antifriction bearings, clothing, and medical and dental items.

The Subsistence Catalog affords an illustration of the cataloging and simplification process. The catalog as currently published for subsistence contains 1,193 items, as compared to 2,035 before the catalog data were examined. While that may seem like a small number of items in relation to the total effort in defense supply operation, please keep in mind that the military departments spent about 2 billion dollars last year for subsistence.

About 17 percent of the subsistence items were eliminated as duplicates or obsolete by the first phase of the examination in which the data are checked. The balance of the reductions to bring it down from 2,035 to 1,193 was made in the simplification phase through the elimination of items which could be dropped without replacement or for which other items already available were equally satisfactory.

RESTRICTED

RESTRICTED

1858

The subsistence Catalog contains only those items authorized for procurement. In an area as uncomplicated as this one, it was not considered essential to include the identification of those items which are presently in the supply systems and which will not be authorized for further procurement. In other areas many active items of supply may no longer be on a current procurement basis, but their listing in the catalog will be necessary for distribution and for disposal purposes. Thus, the catalog will be a master identification intended to serve as a tool for all phases of supply operations.

The Congress recognized that, while a single supply catalog system will replace departmental cataloging systems, there is a continuing need in the military departments for allowance lists, maintenance manuals, tables of organization and equipment, and so on. We have prescribed, however, that the identification data contained in all operating supply publications shall be taken from the data appearing in the Single Supply Catalog.

The cataloging system, then, is the master reference to all items repetitively purchased and stocked. It permits ready identification of materiel with single numbers. The development of the catalog facilitates distribution by positive identification of stocks. It leads to reduced inventories to meet requirements and facilitates cross-servicing and unified operations.

Standardization

Actually the biggest area for savings is probably in the field of standardization. I would like to turn to a consideration of that area right now.

A great deal of unintelligent criticism of the cataloging program runs something like this: "The catalog has listed 50,000 items of one kind. That shows that the cataloging program is no good." Well, actually, that is 100 percent wrong. The cataloging program simply lists those things that are in the supply system. The more items the cataloging program discovers that are carried in the supply system as being different but are in fact alike, the better job of cataloging has been done. The real pay dirt is when you take your catalog data and turn it over to your standardization process, to take all of those items and determine whether all of them are actually necessary for efficient supply management.

Public Law 436 charges the Defense Supply Management Agency with the responsibility of achieving the highest practicable degree of standardization possible. I would like to talk about that for a moment.

RESTRICTED

RESTRICTED

1859

Standardization does not imply limited selection. On the contrary, standardization means increasing the range of possibilities, yet insuring interchangeability of components and eliminating useless differences. American mass production, the art of making things repetitively in great numbers, owes its success to the standardization of materials and processes. The automobile industry is particularly exemplary of a group that has obtained diversity with a high degree of standardization.

Standardization has become an outstanding characteristic of our economy. Our industry is noted for its high degree of interchangeability of parts and its simplified procedures, with all the economic benefits that follow these practices.

Lack of early understanding of the potentialities of standardization initially caused opposition to it. It was feared that it might retard progress; yet a better understanding of the principles demonstrated that standardization has in fact increased the standard of living and has enriched life. Herbert Hoover, a pioneer in the field, commented that standardization does not impose uniformity upon the individual, because it makes available to him an infinite variety of additions to his life. Certainly standardization of milliners' machines has not limited the variety of women's hats which are available at mass production rates and prices.

Standardization contributes to the development of new ideas, new methods, and the use of new materials. It is true that the improper use of it can produce inflexibility and stifle inventiveness. It is necessary, therefore, to insure that our standardization activities are carried out intelligently; and that we and industry work together to increase production and eliminate waste.

I think there is a better understanding today in industry and government of the economic function and purposes of standardization. Guided by flexibility in our standardization work, we can relegate the problems that have already been solved to the routine and concentrate upon the unsolved ones. In this way we can insure ourselves that we will meet our military needs at minimum cost with a better product.

The fundamental objectives of the defense standardization program are twofold: one, to increase the combat effectiveness of our military forces and, two, to conserve national resources, production facilities, money, manpower, and time. We plan to achieve these objectives by placing emphasis on:

First, reducing the number of sizes, kinds, and types of items in the military supply systems. If 50 screwdrivers can do the work of 800, then we would like to reduce the number of kinds of screwdrivers in the military supply system from 800 to 50.

RESTRICTED

1860

RESTRICTED

Second, we want to increase the interchangeability of component parts.

Third, we want to develop uniform packaging and preservation practices.

Fourth, we want to prescribe uniform inspection practices.

Fifth, we want to eliminate duplicating inspection facilities and services.

We believe that the most fertile field for standardization at the present time is in the area of simplification, wherein the number of similar kinds and types of items currently in use is being reduced. The catalog data serve as the tools for simplification, because they provide a complete picture of the varieties of items currently in supply channels. Our simplification program is therefore tied very closely to the catalog publication program.

This simplification process must be understood, however, as a short-range approach. It does not enter into the considerations of basic engineering differences or of complicated equipment. Complicated end items and those involving engineering considerations require intensive analysis under a longer-range program.

The more fundamental approach, that of evaluation on an engineering basis, is extended to the basic materials, units, and processes. The more basic the analysis, the larger becomes the possible combinations of basic elements and the finished products. The exact qualities and attributes of an article that are required to serve the purpose in view can then be determined, and a statement of specifications by which these attributes may be defined is made. This affords the basis for examining comparability of bids on goods of predetermined quality and insures the buyer that he can get a given quality at lower costs.

The core of military standardization is based on the fundamental concept that industrial capacity will be required to produce the items and that requirements, therefore, must be realistic. Variations in specifications for similar items are costly; they lessen the advantages of long production runs, frequently cause retooling, delay deliveries, and cause confusion in industry. It is our aim to develop and use single and simple specifications for the same types of items. Moreover, wherever practicable and economical, we plan to use nationally recognized industry and technical society standards and specifications.

An example of standardization work which bore fruition in recent months, and which shows the effects upon procurement and distribution,

RESTRICTED

RESTRICTED

1861

merits consideration. A study of internal combustion engines in the 3-inch-to 4-inch-bore range has reduced the number of bore sizes purchased by the military departments from 19 to 5. Fast-wearing parts, such as valves, pistons, and bearings, needed for replacement in these engines, have been reduced through this study from 1,187 commercial parts to 59 standard parts. Work is now being concentrated in the 4 to 6-inch-bore sizes, and also in the 2 to 3-inch-bore sizes.

An analysis of pistons, which is one of the 59 standard parts, shows that when the program is fully implemented, a reduction in inventory in the supply system for this part of 44 percent will be achieved. This reduction in inventory is expected, although the total annual issues is expected to be equal to that of prior years. This reduction of 44 percent in inventory represents about the same percentage in saving of cubic content of warehouse space and in the reduction of dollar inventory for this one part.

The estimated benefits from the standardization of pistons will be less than that of many of the remaining 59 standard parts. Pistons are replaced only during a major overhaul, whereas most of the other parts are replaced without awaiting a major overhaul. It is, therefore, estimated that at least similar savings in cubic content and similar reductions in dollar inventory may be expected for the remaining 58 standard parts.

No attempt has been made to estimate any additional savings resulting from the reduction in overhead of dropping 1,128 items from the supply system, or from a reduction in price resulting from the consolidation of items, since such information is not available at this time. However, it is estimated conservatively that 40 percent in cubic content and in dollar inventory for the original 1,187 critical parts will be saved as a result of reducing them to 59 standard parts.

Inspection

I would like to turn now, because time is going quickly, to a consideration of the inspection function of the Defense Supply Management Agency.

Public Law 436 directs us to achieve the most efficient use of inspection testing and acceptance services and facilities. There was much criticism of military inspection during World War II and many contractors asserted that there was much waste of materials and manpower. The most common complaints center around the following major criticisms:

1. Design specifications were too rigid or too ambiguous.
2. Many of the design requirements were impractical and did not follow standard commercial practices.

RESTRICTED

RESTRICTED

1862

3. Military inspectors were poorly trained.
4. There was too much duplication of inspection.
5. There was too much 100-percent inspection; too little spot checking and use of statistical control.

While reports from contractors indicate a substantial improvement in inspection relationships since World War II, this is still a vast field requiring improvement. We believe that the criticism with respect to specifications and the impractical requirements of our specifications will be minimized through our standardization program. With respect to the training of inspectors, the military departments are cognizant of that problem; and we think that substantial improvement in the training of inspectors has already been made; and programs are under way which will enhance the effectiveness and the knowledge of the military inspectors.

There is a great deal to be done, however, in the field of inspection with respect to the elimination of duplications and the establishment of sounder inspection procedures. These areas can produce substantial savings. In addition to that, they are essential to improving relationships with industry.

The Defense Supply Management Agency, in carrying out the inspection program, is conducting periodic surveys of inspections arrangements at industrial plants in major cities to determine the extent of actual inspection overlap and duplication, in an effort to try to find means of eliminating this overlap. These surveys have already stimulated many local interchange agreements, of which there are thousands, among the Army, Navy, and Air Force. We are planning to develop policies and procedures that will insure efficiency in inspection and the elimination of duplication. Definite action has been taken to minimize the number of inspection organizations within the military departments. The Air Force has already established a single general inspection activity. The Navy has centralized control of its general inspection activity and its specialized inspection services. The Army is now examining its inspection services in order to achieve centralized control that will eliminate overlapping and duplicating inspections.

With respect to inspection procedures, we are reviewing all quality control systems, in an effort to reconcile different practices and to incorporate the best features into a Department of Defense system. We think that considerable savings are possible by the extension of statistical sampling plans and quality control systems. The magnitude of such savings might be illustrated by the statistical sampling plan for acceptance testing of turbojet aircraft engines. As a result of improved procedures, savings of 500 to 700 dollars per engine are being realized. Approximately one million dollars will be saved on two Air Force contracts currently in progress.

RESTRICTED

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Conclusion

1863

This has been a hasty review of the cataloging and standardization programs. This morning we have rehearsed the necessity for a better understanding of the military-economic equation. We have pointed out that the cataloging and standardization programs as established by Public Law 436 provide the essential tools for improved supply management. We have discussed the ramifications of the cataloging and standardization programs and talked about their impact not only upon the distribution systems, but also upon the procurement and requirements programs of the Defense Department. We have discussed another aspect of the Defense Supply Management Agency program, that of inspection; and have shown its potentiality for increased savings and better relationships with industry. I hope that this has given you a better insight into a vast and complex program, which requires the support of each of you if it is to succeed.

Thank you very much.

CAPTAIN RICHTER: Gentlemen, Mr. Brodsky now is ready for your questions.

QUESTION: I was interested in your remarks on the standardization of these internal combustion engine parts. I can see where it is a fine thing in days of peace, when you can go out and get the same kind of procurement from industry. But what steps are being taken to insure that in a rapid and total mobilization, industry can go along with this standardization and give us our requirements? Or are we at each war or each emergency again going to throw the catalog out the window and start over again?

MR. BRODSKY: That is a good question; I probably should have taken it up in my discussion. But time prevented me from covering the whole problem and I omitted that.

With respect to the internal combustion engine, for instance, most of that work was done by industry itself. Industry has accepted it fully. I think I did take the opportunity at least to talk in one sentence about the fact that our standardization program must take into consideration industrial practices, industrial availability. Obviously it would be foolhardy for us to standardize and find that we have no supplier. The purpose of standardization is to increase the range of suppliers.

In the case of the internal combustion engine in the 3 to 4-inch-bore sizes, industry was at first reluctant to get into the program. It then proceeded--and I must say in all fairness that it did an excellent job--and I was amazed when it was then at the prodding of industry rather

RESTRICTED

RESTRICTED

1864

than of the military departments that we went into the 4 to 6-inch-bores and the 2 to 3-inch-bores, because once having proven its value, industry realized it would be advantageous to industrialists as well as to the military.

QUESTION: How are the services included for their own needs in this program? In other words are certain standards set and then the services are told "These will be the standards"? Or can they voice a strong opinion or submit a minority report to take care of their own peculiar or particular needs?

MR. BRODSKY: I think I did mention parenthetically that one great advantage of Public Law 436 was that it gave the director authority to decentralize his operation. We obviously have the choice of moving the technical talent into a central organization or utilizing the technical talent available in the departments. We have selected the better approach--obviously the latter one, of decentralization to the departments.

We, therefore, under our monitorship are assigning a task problem to one of the departments in the field of standardization. The task group consists of Army, Navy, Air Force, Marines, General Services Administration, and anybody else that might be concerned with that particular specification. If a satisfactory solution is not produced as a result of the task force group consultation, then the problem is passed to the Director of the Defense Supply Management Agency for decision.

QUESTION: How can you adapt the standardization concept to fields that are changing so rapidly, say, as the aircraft industry and electronics? If you are going to standardize equipment that becomes obsolete quickly, you may never have the better items available. If you have to go through the standardization procedure, it may take so long that you will get nothing but obsolete equipment. Also it will increase the already long lead time in improving equipment. Would you comment on that?

MR. BRODSKY: In our standardization program there is no effort to standardize the design. The standardization is on components and interchangeable parts.

To take a specific example, the B-36 and B-47 aircraft have interchangeable parts. There is no limitation on the design of either of those aircraft. As a matter of fact, in the field of aircraft there has been more standardization probably with respect to components than in any other field. Long before this program was under way, the Air Force and the Navy had gotten together and worked out a list of standard hardware which they gave to the manufacturers of aircraft and said: "In designing your plane you will use this standard hardware unless you can justify the need for a peculiar part."

RESTRICTED

RESTRICTED

1865

So standardization does not produce inflexibility. As a matter of fact, it produces flexibility. But it does provide that component parts will be standard parts and will be interchangeable; so that you don't have some unique gadget or unique part that is not available in stock.

QUESTION: How long will it take to get a common item included in the Federal Catalog in the time that it is desired to have it available?

MR. BRODSKY: We have provided a procedure for cataloging at the time of procurement. Remember I said that Public Law 436 provides that once a catalog is published, thereafter only those items which are contained in the catalog will be authorized for subsequent procurement, except in the case of special missions.

We have not yet in the Defense Supply Management Agency worked out with the departments a means for permitting the emergency purchase of special mission unique items. That is a problem we have to face. But we have worked out a procedure for cataloging at the time of procurement where new items are being bought.

QUESTION: As you describe this catalog and its publication, is it envisaged that there will be a set of interchangeability tables or something that will come out with it originally? Specifically I have in mind something like the automotive interchangeability tables, which you may have seen. Some of these commercial publications enable a man in a stock room to identify under maybe four or five other nomenclatures an item for which he is looking.

MR. BRODSKY: You have touched on another problem that I avoided completely, because of its technical nature. There is a cross-reference project, which is operated basically by electrical counting machines, the purpose of which is to bring together, as you have described, various numbers of manufacturers under one number.

QUESTION: What has been the technique in your cataloging? Would you like to say something, Mr. Brodsky, about the technique--as to what kind of descriptive matter it would use? Do you use photographs, drawings, samples, and that sort of thing?

MR. BRODSKY: I don't want to be evasive, but I can't answer that directly, because each commodity group obviously has different requirements. Where photographs are essential, our catalog will make use of photographs. In the case of subsistence, of food, that was not necessary. Presumably in the case of clothing that may not be necessary. In the case of medical we probably may have some. But each group requires special treatment, special consideration.

RESTRICTED

RESTRICTED

1866

QUESTION: The goal of your program seems to be the same as must have been the goal of the Federal Standards Task Group which we had some time ago. I wonder what steps are being taken to avoid some of the difficulties in the substitution of items when the specified item is not available. If you are tied down to buying only the items in the catalog, it seems as though there might be plenty of occasions when you couldn't get anything because you couldn't get the item in the catalog. Another trouble with cataloging occasionally is the matter of obsolescence of the items in the catalog. Would you care to comment on that?

MR. BRODSKY: In the first place, a catalog lists all those items which are in the supply systems of the Army, Navy, Air Force, Marines, and so on. Therefore, if it is a valid item, it should be listed in the catalog.

Now, when you get to the operational matter of issuing this item in place of that one, that is a prerogative of the military supply system which we do not take away from the military departments. That is an operational matter which the military departments, on the basis of their status of stock, will have to decide.

With respect to authorization for procurement, all those items which are in the Navy's supply system, for instance, that are valid items should be listed in the catalog. Those items authorized for procurement will be indicated. So the catalog should not be a limitation on the ability to provide substitute items.

QUESTION: Will there be one standard catalog which will be used by all agencies, or will the various agencies use the catalog and develop their own annex? If it is one catalog, how big is it going to be?

MR. BRODSKY: There will be one catalog. But, just as there isn't one telephone book to cover all the phones in the whole United States, it will be broken down by sections. Obviously, our catalog will be broken down into manageable sections.

We haven't solved all of the problems. The Defense Supply Management Agency, remember, was only created on 1 July 1952. We can only look ahead so far and I can't answer what it ultimately will be.

I can say this much: that in the case of subsistence, the first one we put out--and it is not typical of every case, because each one is unique--it seems to us that the catalog can be used by the military departments to a very low depth. In other cases it may be necessary for the departments to supplement what we have put in with their own operational data. But we have put in a requirement that whenever they use any information which is already included in the catalog, they put it in precisely as it is included in the Single Supply Catalog.

RESTRICTED

RESTRICTED

1867

QUESTION: Is anything being done to eliminate the number of commercial items which are obtained by means of competitive bids? To my mind that seems to be overloading the supply system much more than any other thing. As an example suppose we want to stock an item like a tractor. You ask for bids on them and you may get any one of seven or eight makes. Then you have to stock the spare parts for all those makes forever. What can we do about a problem like that?

MR. BRODSKY: We believe that by a process of cataloging we will discover those items which, though on the surface are different, are actually in fact identical.

As to the problem that you raise about spare parts for commercial type equipment, it is no secret that the Army is having a hard time engineerwise in Korea because in the case of cranes, for instance, they got 8 or 10 different commercial cranes. They haven't found out yet whether the parts are interchangeable or not. It is our purpose in this program to develop means whereby we will eliminate those differences by positive identification, where you can be sure of the interchangeability of the parts and we don't run into such problems as that.

QUESTION: This is a question that was left over from the time when I was on the Board. We got all excited when we found we had lost 750, and I think it is now 1,000, of the 436 schedule most important items in the Department of Defense in the standard approved nomenclature. My recollection is that we were told that there was no such standard approved nomenclature for such an item as a tank or an aircraft. In your example that you mentioned about the B-36 and the B-47 it sounded as though you were talking only about the things that go into the airplanes, not about the airplanes themselves. Where is the line drawn between the point at which you are naming nuts, bolts, washers, pistons, and rings and the point at which you are naming the end item which is made up of all these things?

MR. BRODSKY: I think that again is the difference between the old regime and the new regime. Take aircraft, for instance--at the moment General Dent, under the monitorship of the Defense Supply Management Agency, is engaged in a project for standardization of aircraft designation, which I think would be in line with what you are speaking of.

In the past it is true that a lot of the major items of equipment initially were considered as being excluded from the program. I think we now realize that, if we are going to break down all the components of these things, we also have to be able to identify the major items of equipment.

QUESTION: You mentioned that illustration of the problem of the 8 or 10 different makes of cranes. I wonder what industry's viewpoint

RESTRICTED

RESTRICTED

1868

would be if you should start throttling competitive bidding by standardizing on one make. How is industry going to like it if other makes cannot bid where there is a slight difference from the standard. That has been the basis of a lot of criticism. I was wondering just what will happen at that stage of the procedure.

MR. BRODSKY: All of this is subject to the rule of reason. We are not stifling industry in this. We are increasing competition by making the components interchangeable, by standardizing the components.

I understand that the hamburger-grinding machines now on the market have 500 varieties of holes in them. I don't see how anybody is profiting from having those 500 varieties. I think the industry would go along with us on standardizing the kind of parts that make the holes in those machines.

It doesn't mean that we are saying to industry, "You design the machine this way. We will except only one design." We want to encourage inventiveness. We want to encourage ingenuity. But we do say that unless there is a valid reason for the differences in components, we want interchangeable components.

In the case of the cranes and shovels, and in the case of the automotive internal combustion engines that I mentioned earlier, we at first had trouble breaking the ice. But after that was done, industry became enthusiastic. In the case of competitive bidding, when we get to the point where the ice has been broken, we will see enthusiasm from industry.

QUESTION: Are the items priced in the catalog?

MR. BRODSKY: No. They are not priced. That is operational.

QUESTION: Would it assist supply management to reduce those to dollars and cents? That seems to be a moot question now.

MR. BRODSKY: That is a good question, but I think you are a little ahead of us. We are trying to develop a master identification system. We are not in the process of developing operational practices. You know that in the case of the Army your experience in pricing has been a very limited one. In the case of the Navy, on the other hand, it prices its items down. So there is a lot of work to be done operationally with respect to pricing, for one thing.

Unit of issue is another thing on which there is no uniformity in the military departments. If there were a uniform unit of issue, then the catalog, in my opinion, should reflect that data. But at the

RESTRICTED

RESTRICTED

1805
moment, if the catalog can merely identify, describe, and give all of the performance data which are already available, it shall have done a yeoman's job. It can't get into all these different operational areas over which the Defense Supply Management Agency has no cognizance by law.

CAPTAIN RICHTER: Mr. Brodsky, we are going to move you out of the inquisition area. On behalf of the Commandant and the student body, I thank you very much for a very fine presentation of a complex problem.

(11 May 1953--750)S/rrb.

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