NAME OF SYSTEM:

Miniaturized Navy Catalog Data

ORIGINATOR:

Naval Supply Systems Command
Department of the Navy
Washington, D.C. 20350

OBJECTIVE. To explore and develop new and improved methods and procedures for use in disseminating Navy catalog data and to reduce costs and increase the effectiveness of this supply management function.

BACKGROUND. Since 1949, the Navy has disseminated descriptive and management data in the form of printed publications. These publications are distributed to military personnel (requisitioners) located in all parts of the world, as well as to forces afloat, and provide the information needed to effectively manage logistics tasks. Currently, there are 15 separate classes of catalog publications distributed in time cycles ranging from monthly to annually. To illustrate the magnitude of this endeavor, for fiscal year 1971 it is estimated that the printing budget for catalog data alone will total about $1.3 million.

Because of the rising printing and other costs and anticipated increases in the size and number of publications to be managed, the Navy conducted a comprehensive study of the problem. As a result, an in-depth test was conducted to evaluate the feasibility of miniaturizing the catalog data. It was found that most users of the data would prefer a microform system for information storage and dissemination. Accordingly, the Navy has initiated a long-range program that eventually should convert most of the present printed paper catalog publications to microform. As a first step, the Navy has established a microfiche system for designation of selected descriptive management data.

THE NEW METHOD. Among the several catalog classes selected for the initial conversion to microform format is the Navy Management Data List (NMDL). It comprises about 10,000 pages contained in 20 volumes, each about 1-inch thick. About 8,000 NMDL catalog sets are produced. Updating of the NMDL in the past was accomplished by the periodic publication of cumulative bimonthly change bulletins and page revisions, both of which required extensive manual maintenance. When the volume of cumulative changes totaled about 25 percent of the original catalog, or when two years had elapsed, a new updated addition would be printed. Thus, the many changes made it necessary for a searcher to frequently make a double look-up.

The transformation of the NMDL catalog information to microfilm is a relatively simple task under present computer capabilities. Since catalog data is already maintained on magnetic tape, the tape acts as conversion input to the COM (computer output microfilm) microfilm recorder. The COM recorder changes binary-coded information on magnetic tape to readable page images on 16-mm. roll microfilm. The film is cut into strips, and through a series of photographic processing steps, is transformed into a negative microfiche master. The National Microfilm Association (NMA) microfiche format is used. Each microfiche contains 100 page images of catalog information. A microfiche duplicator produces sufficient microfiche copies for distribution to participating ships and stations and shore stations of the Naval Material Command.

The search routine consists of finding the Federal Stock Number (FSN) pertaining to a known NMDL number, which identifies a particular supply item. The searcher first scans the full-size index tabs labeling the approximately 100 microfiche to identify those within the numerical range. Selected microfiche are positioned in the glass carrier of the reader and viewed on the display screen. A scan of the NMDL listings reveals the matching FSN needed to fulfill the search requirement.

REMARKS. Because the COM microfilm recorder eliminates the computer output bot-

tleneck, it also results in a major cost savings. Recent studies in the data processing service industry have shown that reductions as high as 40 percent in monthly service costs can be realized by using COM in place of computer printout.

Catalog data in microform can be produced in a much shorter time span, and the material is distributed quickly by airmail or first-class mail, whereas bulky catalogs by necessity are usually transported by parcel post. This transmission feature thus narrows the gap between the information accumulation cut-off date and the users receipt of the data.

From the standpoint of user acceptance of this microform system, a comprehensive field test and analysis conducted by the Naval Ship Systems Command showed that over 90 percent of 200 users preferred microform over standard hard copy catalogs for searching.

MINIATURIZED NAVY CATALOG DATA