

NAME OF SYSTEM:

**DDC Information Storage,
Dissemination, and Retrieval**

ORIGINATOR:

**Defense Documentation Center (DDC)
Defense Supply Agency
Cameron Station,
Alexandria, Virginia 22314**

OBJECTIVE. To maintain and operate a centralized national documentation dissemination and retrieval service for the scientific and engineering disciplines, in order to improve the utilization of research reports and the effectiveness of Government research and development activities.

BACKGROUND. The Defense Department (DOD) must spend several billion dollars a year on research, development, testing, and evaluation of new operational and support systems. As a by-product of these thousands of individual programs, an avalanche of technical reports are produced. Collectively, there is a treasure of scientific and technical information among these many documents. A major problem in the design of any information collecting, processing, and disseminating system is the need to channel the required information to the interested persons as efficiently and effectively as possible.

To better understand user characteristics, the DOD undertook a comprehensive study of the problem by interviewing many users of the information. The sampling encompassed about 1,350 of the more than 100,000 scientists, engineers, and technical people involved in Department of Defense research and development work. The investigation revealed that, as for type of information interest, almost half desired engineering information while about 40 percent had scientifically-oriented interests. In regard to the depth of the information need, 60 percent wished specific facts, perhaps from one document, while about a third of those interviewed desired enough material to make detailed analyses.

In terms of information system utilization, about 95 percent of the users relied upon their organizational technical libraries, with most agreeing that abstracts of information media would have been useful in completing past projects. About one third of the users utilized the DDC, while the remainder, at the time of the interview, were unaware of its services.

THE NEW METHOD. The Defense Documentation Center collects, processes, announces, and distributes scientific, engineering, and technical information to personnel of the Department of Defense and related agencies and activities. Documents processed and distributed by this system fall into the subject categories listed in the COSATI (Committee on Scientific and Technical Information) Subject Category List, which covers 22 scientific and engineering fields.

The full collection of research and development documents dates from 1947 and totals about one million accessions. The descriptive data for accessions acquired since 1953 is stored on magnetic tape and is computer-retrievable. All documents are microfilmed as they are processed into the system. Those documents received before 1965 are stored on 35-mm. roll microfilm while the later acquisitions are reproduced in microfiche. The microfiche is used to reproduce hard copies for pre-stocking and to meet user needs. Incoming documents are arranged by a six digit AD number in consecutive order within three separate blocks of numbers, which are based on classification needs.

Document analysis processing includes descriptive cataloging, subject categorization, subject indexing, and abstracting, which is accomplished by means of remote input terminals. The objective of this treatment is to bring the technical report literature under bibliographic control and to simultaneously produce input data for processing into the computer record.

Documents are categorized under as many as 13 characteristics that are machine-stored for subsequent retrieval. Characteristics include corporate author entry, personal author, and the source report number.

The Technical Abstract Bulletin (TAB), together with its companion TAB indexes, are published semimonthly and announce new accessions to a limited group of users. Should these subscribers desire a copy of the document they may choose between hard copy or microfiche format. (By special arrangement, DDC will furnish magnetic tape containing cataloging data covering current accessions.)

REMARKS. The objective of this system is to provide the right information to the user at the right time and in an economically acceptable format. It is the largest and the most used system of its kind anywhere in the world. A first step in meeting these responsi-

bilities is to understand users' needs and then to establish procedures that will fulfill their requirements.

DDC is continuing to take actions within the processing framework to reduce the time for document information to reach users. For example, during the past year the time span between initial receipt of documents by the DDC and the receipt of abstracts and indexes by subscribers has been greatly reduced. This improvement resulted from the installation of new electronic photocomposition equipment at the Government Printing Office (GPO) and from the cooperative efforts of the GPO and the DDC to fully utilize the equipment's productive capabilities.

DDC INFORMATION STORAGE, DISSEMINATION, AND RETRIEVAL

