NAME OF SYSTEM:

Legal Information Through Electronics (LITE)

ORIGINATOR:

Air Force Accounting and Finance Center

3800 York Street,

Denver, Colorado 80205

OBJECTIVE. To permit rapid yet exhaustive searching and retrieval of information contained in the Comptroller General Decisions and other large collections of legal and administrative documents.

BACKGROUND. The office of the Staff Judge Advocate, Air Force Accounting and Finance Center, Denver, Colorado, first proposed the development of Project LITE as early as 1961. The attorneys at the Denver agency had become aware of certain breakthroughs in automatic indexing and machine searching and believed such techniques would help solve their growing, legal precedent search problems.

Until the LITE system became fully operational in 1964, searches of legal precedent material, such as Comptroller General Decisions and the U.S. Code, were conducted manually. The searches took place at numerous locations throughout the Air Force financial community and involved a duplication of effort. Also, to compound the problem, the body of law and regulatory material was expanding at a rather alarming rate. It was thus obvious to those charged with researching material that emerging new computer capabilities should be investigated with a view toward developing a supplementary, automated data or fact retrieval system.

The system became operational in 1964 after several years of concept development. It included the latest in automated indexing and machine information retrieval techniques. The system is designed to assist procurement officers, attorneys, and other interested users in finding relevant precedent material upon which to base administrative and legal decisions.

THE NEW METHOD. In simplest terms, the search and retrieval processes operate on the information stored in two files within a SPECTRA 70/45 computer, the text file and the vocabulary file. To develop the text file, each word from a document is transcribed to a machine-language mode, such as punched cards or paper tape. This is in turn converted and stored on computer magnetic tape.

With the text file stored on tape, the computer is then used to develop the vocabulary file. This file is basically a concordance or dictionary of all the text file words, with the exception of a standard list of 112 common words. The elimination of these common words from the dictionary reduces the volume of stored controlled text words by about 45 percent. By way of a programed process, each text word within the computer is assigned a text location code. As a result, each word, sentence, paragraph, and document is assigned a serial number.

Users of the system are generally given a short research indoctrination course covering the techniques of problem identification and search framing. The first phase concentrates more on the selection of search words and phrases, while the latter phase is more concerned with the mechanical functions of search. Once competent in using the System, the user has a choice of three output formats: a document citation to include the book volume, page number, scope line, and an abstract reflecting the question; a full page printout of the subject matter requested; or a Key-Word-In-Context (KWIC) printout reflecting the key or prime words appearing in the search request. Users normally submit their inquiries by mail, but they may make their requests by telephone or teletype when necessary.

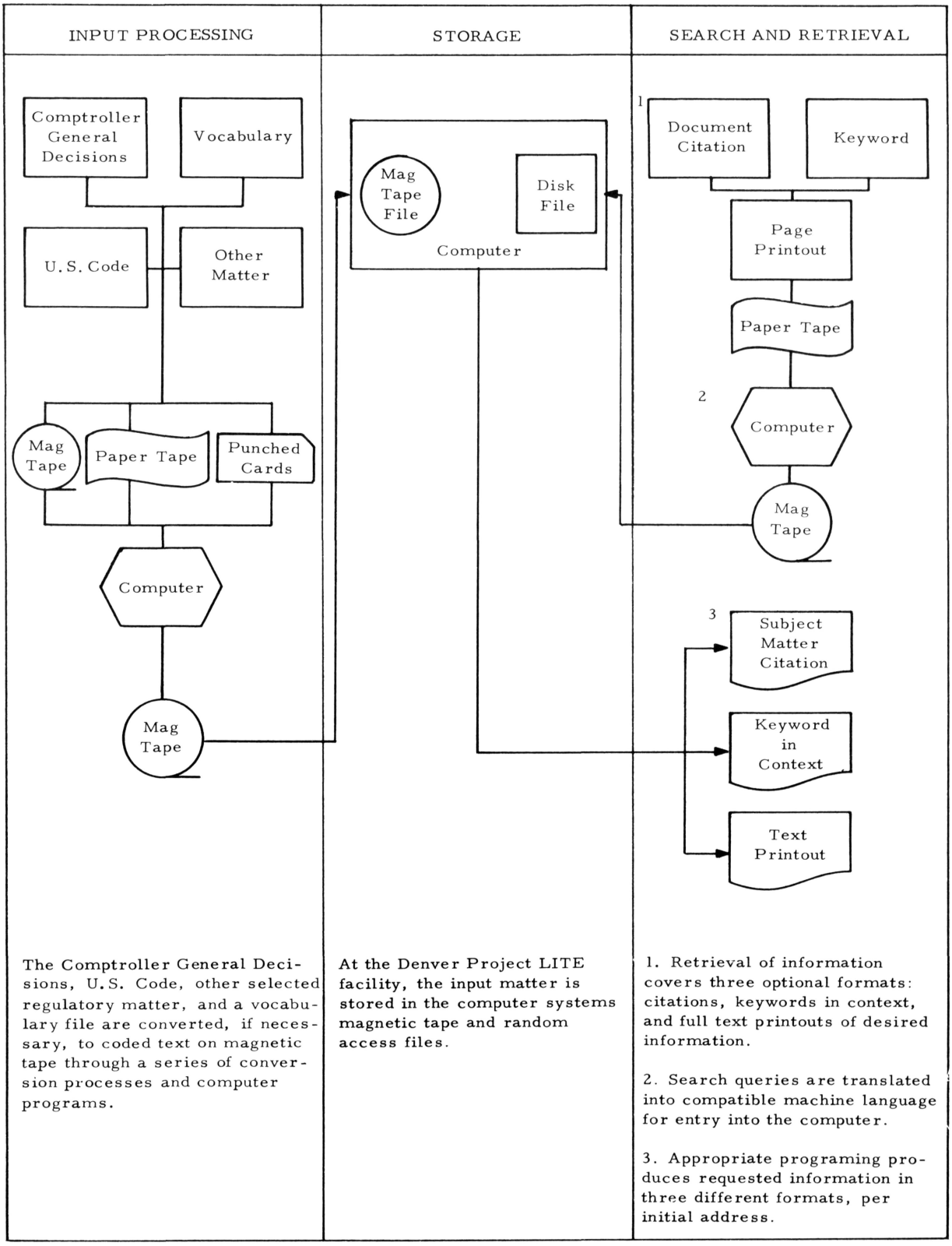
REMARKS. The data bank of the LITE System at Denver is currently categorized into four groups of information—*Statutes* (U.S. Code and Appropriation Acts); *Decisions* (Published Decisions of the Comptroller

General); *Regulations* (Armed Forces Procurement Regulations (ASPR) and Department of Defense Comptroller Directives and Instructions); and *Other,* which includes a wide variety of such documents as the Department of Defense International Law Agreements.

The system offers a wide range of flexibility in search strategy and is limited only by the imagination and ingenuity of those who use it. The initial costs of concept development and text vocabulary files conversion are often higher than costs of other data or fact retrieval processes. However, future costs for retrieval systems of this type should be greatly reduced by the knowledge and expertise acquired through the LITE System experience, by the availability of LITE computer programs for use by others, and by the future use of lower cost input methods, particularly optical character recognition. Further, as more and more installations such as the Comptroller General's Office use computerized composition techniques for preparation of their documents, the magnetic tape created for that purpose can also be used as the input for an automatic indexing and retrieval system.

It is therefore predictable that systems like LITE will play a steadily increasing role in solving the information retrieval problems of the future.

LEGAL INFORMATION THROUGH ELECTRONICS (LITE)



The Comptroller General Decisions, U.S. Code, other selected regulatory matter, and a vocabulary file are converted, if necessary, to coded text on magnetic tape through a series of conversion processes and computer programs.

At the Denver Project LITE facility, the input matter is stored in the computer systems magnetic tape and random access files.

1. Retrieval of information covers three optional formats: citations, keywords in context, and full text printouts of desired information.

2. Search queries are translated into compatible machine language for entry into the computer.

3. Appropriate programing produces requested information in three different formats, per initial address.