NAME OF SYSTEM:

Microform Personnel Record

ORIGINATOR:

Air Force Personnel Center

Department of the Air Force

Randolph Air Force Base, Texas 28148

OBJECTIVE. To develop, test, and operate a more compact and efficient military personnel records system to meet the current and future demands for greater mobility, faster retrieval, improved controls, and reduction in maintenance costs.

BACKGROUND. The maintenance of the mass of documents required as source data in the Department's Master Personnel Records has become an increasingly serious problem since the Air Force was established as a separate military service.

The mobility of personnel and the need to move records from one file custodian to another and from one location to another have complicated the task of personnel records administration. Centralization of the Master Personnel Records activity has been an objective for many years. Since 1964, a series of long-range studies and analyses has been underway to develop system concepts, design, and hardware requirements. The concepts and basic requirements for a microform system have been completed, and the first stage of a long-range, two-stage program is now undergoing service tests at Randolph Air Force Base, Tex.

THE NEW METHOD. The overall system will eventually contain about 22 million microfiche images of paper records of active Air Force members. Images are appropriately indexed and stored in an image storage retrieval subsystem, with image recall based on automatic random-access techniques. User access to the file is by two-part query display terminals located throughout the Military Personnel Center.

The basic input paper documents enter the system through 16-mm. planetary microfilm camera stations. Documents are photographed in a prescribed order on silver halide microfilm and processed by a commercial microfilm service company. The film roll goes to a production and titling station which, through a series of processes, produces silver halide COSATI (Committee on Scientific and Technical Information) quality master microfiche. Human-readable title data is added at the top of the microfiche by one of several processes. The master microfiche serves as input to a Kalvar microfiche printer where duplicate Kalvar microfiche are produced. The Kalvar duplicates are placed in the working file for use in servicing daily search requests.

The working file is housed in the computerized image storage and retrieval subsystem, which provides random access to designated images. This subsystem, at the direction of the searcher, also transports the desired images to TV cameras, hard-copy printers, or microfiche duplicating printers.

Index entries to the system may be produced in one of two ways. When documents are of a particular standard size they are scanned by an optical character reader (OCR) that records specific data fields on the document. Where documents do not meet size requirements the index entries are typed on bond paper for entry into the optical character reader. The OCR inputs of raw index data are converted to magnetic tape in the same serial order as the corresponding image frames on the roll film. The converted index data is then routed to the computer subsystem for processing and storing until needed to identify appropriate microfiche images.

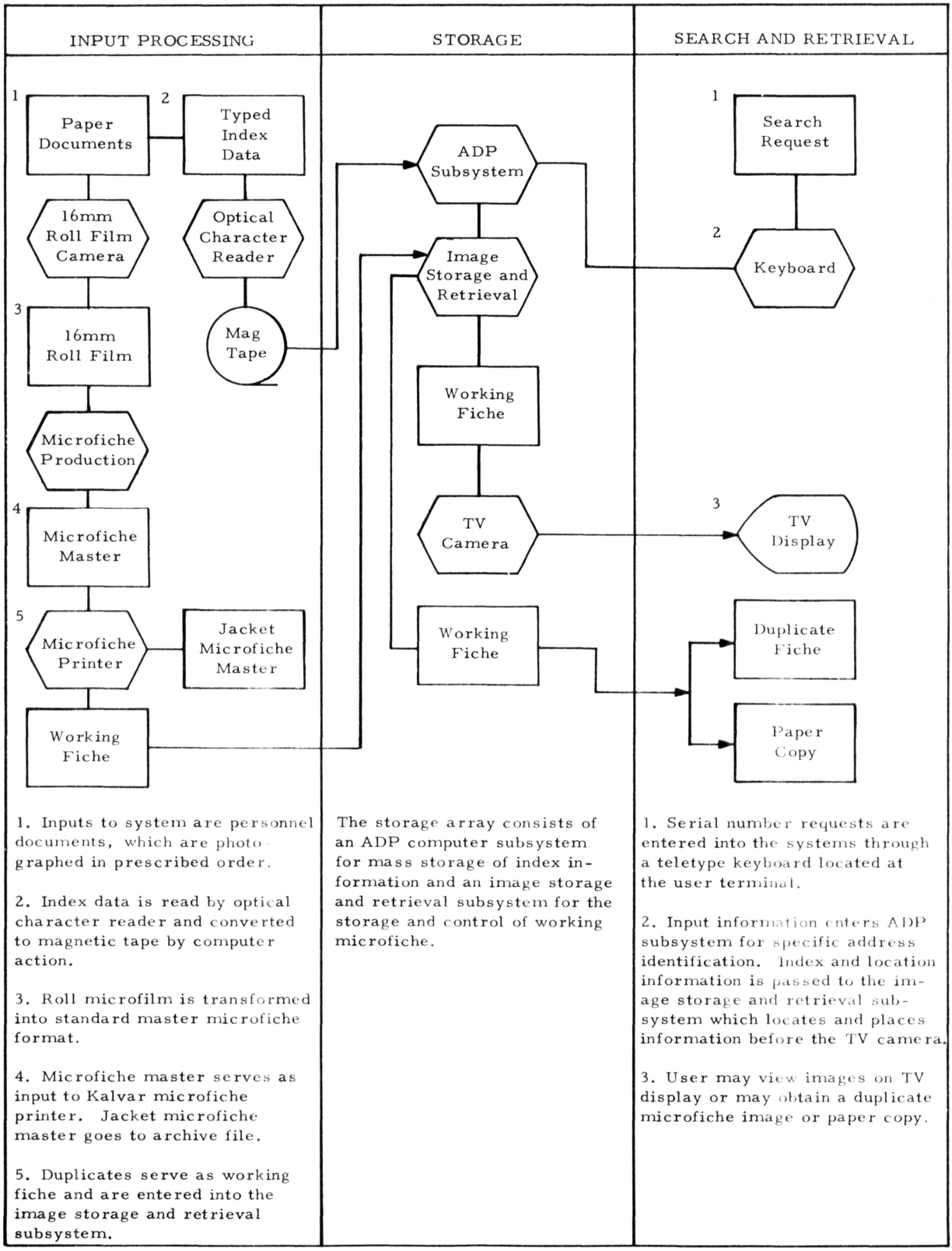
Retrieval of information from the storage file is accomplished through use of teletype keyboards located in user work areas. A user requests a record image microfiche by typing out the serial number of the individual and the subject matter index code in a formalized sequence. The keyboarded message is instantaneously translated by a computer that actuates the image storage and retrieval subsystem to retrieve and position the desired

images in front of an output port of the retrieval system. Assuming that the query results in an image to be displayed, a TV camera scans the image at the output port and transmits the image through the buffer to the TV monitor display location. Each display has an associated keyboard that controls the image selection from the buffer, in addition to display characteristics such as focus and contrast. Should the user desire a hard copy or duplicate microfiche, the image storage and retrieval subsystem routes the microfiche to a different output port where the images are reproduced by an electrostatic printer or where a duplicate microfiche is produced. The copies are then routed to the information user.

REMARKS. This new microform personnel record system utilizes the latest advancements in computer and microform technology to a significant degree. While the system is most costly, the economic and morale benefits should more than pay for the developmental and initial procurement costs within a few years.

The system will greatly reduce the inherent delay in the completion of personnel actions. For example, it should yield valuable benefits in more detailed and responsive management of the individual member; consolidation of personnel records; increased file integrity; and significant reduction in the unit cost of personnel management transactions.

MICROFORM PERSONNEL RECORD



1. Inputs to system are personnel documents, which are photographed in prescribed order.

2. Index data is read by optical character reader and converted to magnetic tape by computer action.

3. Roll microfilm is transformed into standard master microfiche format.

4. Microfiche master serves as input to Kalvar microfiche printer. Jacket microfiche master goes to archive file.

5. Duplicates serve as working fiche and are entered into the image storage and retrieval subsystem.

The storage array consists of an ADP computer subsystem for mass storage of index information and an image storage and retrieval subsystem for the storage and control of working microfiche.

1. Serial number requests are entered into the systems through a teletype keyboard located at the user terminal.

2. Input information enters ADP subsystem for specific address identification. Index and location information is passed to the image storage and retrieval subsystem which locates and places information before the TV camera.

3. User may view images on TV display or may obtain a duplicate microfiche image or paper copy.