NAME OF SYSTEM:

Miniaturized Management Reports Distribution

ORIGINATOR:

Advanced Logistics System Center

Air Force Logistics Command (AFLC)

Wright-Patterson Air Force Base, Ohio 45433

OBJECTIVE. To improve current Command information system processes to allow for reduced cost for producing management information and at the same time to provide users with needed information in a more accessible format.

BACKGROUND. The Air Force Logistics Command (AFLC) provides worldwide logistics support to all Air Force organizations. These responsibilities include such complex and vitally sensitive activities as the procurement and maintenance of aircraft and related support systems and the movement and control of supporting material. In addition to the headquarters, five subordinate installations called Air Material Areas are responsible for performing the necessary activities in support of the overall mission. In the management of these multibillion dollar programs, AFLC for many years has been one of the larger users of automated information processing equipment and techniques. During this period, the Command has also been a leader in the exploration and use of appropriate technological advances.

As both the scope and number of computer-based management reports increased over the years, two output problems have become increasingly apparent. One has to do with the growing imbalance between actual machine processing speed and the rate of impact printer output in the form of master copy printout. The other concern involves the enormous increase in the volume of printed reports—over 32 million original pages were produced during the past year. An interim solution to the processing versus printout imbalance has been to employ IBM 1401 computer systems to relieve other computers—principally the IBM 7080—of massive print workloads. The bank of 1401 computers print output information based on magnetic tape input at the rate of 600 lines per minute on an around-the-clock schedule.

THE NEW METHOD. The new microfilm display system should become operational during fiscal year 1971, with similar equipment and procedures being used at each of the six locations. The new system will record output from the AFLC's computer processing equipment directly onto 16-mm. microfilm by means of COM (computer output microfilm) equipment. Peripheral equipment to support the new concept will be used for film processing, film duplicating, and for viewing the microfilm output.

Specifically, magnetic print tape will be the input to the off-line microfilm recorder. It will convert and record data information to human-readable images on 16-mm. microfilm, within the range of 7 to 15 thousand lines per minute. This conversion performance is in contrast to the current hard copy recording capability of 600 lines per minute. The film processor, normally working in direct line with the recorder, fixes the exposed film for permanent use. The first off-line process will entail the duplicating of the master microfilm copy in copies sufficient for distribution to the groups of users. After these duplicates are loaded into cartridges they will be forwarded to the several file stations where either readers or reader-printer equipment will be available for screen viewing or for the making of paper copies.

REMARKS. The system's cost over a five-year projection should annually average 14.2 percent less than current costs for labor, supplies, mailings, and both data processing and nondata processing equipment.

An analysis of paper information display versus microfilm image display revealed that the microfilm costs should range from 13 to 20 percent less than paper costs for the same number of information copies.

Considerable savings in paper will accrue since many users of the management reports are only interested in a small segment of the full report. Hence, the system can be tailored to the needs of individual users through selective storage of microfilm cartridge information at the file stations. When the six duplicate systems are fully operational, more than two tons of computer printout paper will be eliminated annually.

Other significant benefits will be realized through the conversion of about 34 million pages of printed paper files to microfilm, including easier storage and handling and increased efficiency for users.

Service tests revealed that the majority of users desired their information on microfilm rather than on paper printouts. However, some negative reaction concerned two aspects of the microfilm reading equipment—design and environment. Some users experienced discomfort such as eyestrain, headache, and neckstrain. To modify or eliminate these problems, system specifications will acknowledge the need for less screen glare on readers and a more compatible lighting environment. Additionally, the acquisition of adjustable-height stands for readout equipment will be considered.

MINIATURIZED MANAGEMENT REPORTS DISTRIBUTION