U. S. Naval Weapons Laboratory
Dahlgren, Virginia

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Microfiche Usage in the Technical Library at Naval Weapons Laboratory

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In 1964, the Technical Library made plans for moving into newer, more spacious quarters. While making these plans, it was obvious to the Librarian that in two years the accumulation of documents, books, and periodicals would again be a storage problem.

The Librarian and the Library Advisory Committee asked the Management Engineering Staff to assist them in a study of the use of microfiche for the library. I'm assuming the reader is familiar with the size and format of microfiche sheets and will not elaborate on them. The study that we requested was conducted and included visits to the only users of microfiche in the Washington area at the time. They were NASA, AEC at Germantown, and a future user, DDC. The Library Advisory Committee in preliminary discussions had stressed the need for making the use of microfiche completely convenient and comfortable for the user. The study was intended to help us learn how microfiche was produced, reproduced, and used. An interesting thing became glaringly obvious--none of these agencies were equipped with enough readers to make the use of microfiche convenient. In fact, at the time one agency had only a large reader-printer in the library which appeared to be used solely for reproducing hard copies--not for reading purposes. We were convinced that the Advisory Committee was correct and recom-

mended in our report to Laboratory Management that we would need ten (10) portable readers for the laboratory as a start. We have since purchased the following and recommend this equipment as satisfactory: (or equivalent equipment)

1.	10 Dukane Portable Readers	@152.20	$1522.00
2.	14 Doc. Inc. Portable Readers	@159.50	2228.00
3.	1 Filmac 400 Microfilm and Microfiche Reader-Printer in Main Library.		1073.10
	Microfiche Attachment		215.00
4.	Microfiche Copying Equipment (Kalvar)		
	Printer		596.00
	Developer		300.00
5.	Filing Cabinet for 4x6 Microfiche (GSA)		91.50
6.	Filing Envelopes (for holding Microfiche in cabinet) (Microcard Editions, Inc.)	@6.00 per M	60.00
	TOTAL		$6323.50

Because of the resistance of research people to using microfilm, we felt that we should conduct several sessions in which we explained the need for using microfiche, and the advantages. As we placed each of the first portable readers, we itemized the following and answered questions:

NEEDS

1. To increase storage capacity in the library without adding space.

2. To eliminate myriad filing cabinets of hard copies in

storage in various individuals offices.

3. NWL is geographically remote from information centers and it is necessary to maintain an extensive working collection for prompt availability. This can only be done if storage capacity is sufficient.

USES AND ADVANTAGES

1. Duplicates are made of master microfiche and are circulated without being charged to the individual. They are expendable. This is true for the unclassified. The Confidential and Secret have to be accounted for.

2. When several requests come to the library for the same document, copies can be sent immediately of microfiche to all requestors, thereby allowing him to receive the document immediately and not have to wait his turn to see a hard copy.

3. One thousand (1000) microfiche will fit in a filing drawer on a man's desk as compared with a $2\frac{1}{2}$' by $1\frac{1}{2}$' filing cabinet.

4. Can reduce bound journal back files when these are finally available on microfiche thereby allowing storage for a greater collection of journal literature.

5. Ratio of shelving in library to microfiche drawer space is 140:1.

The education process to promote usage of microfiche is a continuing one. Acceptance has been very good by the NWL staff. However, when there are problems, it is because the microfiche copy is poor. Agencies who produce these need to staff their operations for accuracy in copying that will reproduce good tables, graphs, and diagrams, as well as text. If some mathematical notations are obscured, it can change the whole problem. These poor microfiche create our only user problem.

Originally, we had planned to purchase portable reader-printers when they were available. However, it seems to satisfy the users needs to have a handy reader and the knowledge that a reader printer is available when needed. It seems that discretion is the better part in this case and encouraging copying will create again the hard copy storage problem in individual offices.

Certain costs savings can be documented while an estimation of the value to the borrower of prompt access to reports can only be assumed. We have thirteen thousand (13,000) microfiche documents in one filing cabinet. All of the document distribution from NASA comes on microfiche and all of DDC and AEC reports are requested to be on microfiche. Roughly about *50 filing cabinets in offices can be discarded making the following savings:

I.	13,000 documents would require 18 sections of shelving	$ 3034.00
	Floor cost if 18 new sections of shelving had to be placed @25 per ft.	3375.00
	Floor space saved by eliminating *50 filing cabinets $2\frac{1}{2}$'x$1\frac{1}{2}$' @25 sq. ft.	4487.50
	TOTAL SAVINGS TO DATE WITH MICROFICHE	$10856.00
II.	Cost of filing cabinet	91.50
	Cost of floor space for cabinet @25.00	89.75
	Other equipment (minus cabinet)	6232.00
	TOTAL COST OF MICROFICHE	$ 6413.25
	Savings	$10856.50
	Costs for equipment, etc	6413.25
	TOTAL	$ 4443.25

These figures indicate that we are about four thousand dollars ($4000.00) ahead by having installed the use of microfiche. They are the obvious. The value of having enough information available and room for it when it is needed for a research problem is hard to estimate. But in emergencies like the present conflict a delay in obtaining reports or manuals can mean the delay of effective support to the war effort. Who can evaluate the cost?

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13. ABSTRACT

This is a report of two years experience of using microfiche and microfic equipment in the Naval Weapons Laboratory Technical Library.

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