NATIONAL LIBRARY OF MEDICINE

LIBRARY NETWORK/MEDLARS TECHNICAL BULLETIN

of the

Library Component of the Biomedical Communications Network

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U.S. DEPARTMENT OF HEALTH, EDUCATION, AND WELFARE
Public Health Service
National Institutes of Health

LIBRARY NETWORK/MEDLARS TECHNICAL BULLETIN
of the
Library Component of the Biomedical
Communications Network

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The LIBRARY NETWORK/MEDLARS TECHNICAL BULLETIN
is issued monthly by the Office of the
Associate Director for Library Operations.

MEDLINE DATA BASES

The MEDLINE and COMPFILE data bases were not updated this month. They still contain citations from January 1970 through December 1973 and must be searched with 1973 MeSH vocabulary. SDILINE was updated with January 1974 citations on December 21 at NLM and on December 28 at SUNY, and it must be searched with the new 1974 MeSH vocabulary. The sizes of the data bases are as follows:

MEDLINE -	533,035
COMPFILE -	351,891
SDILINE -	16,387

MEDLINE TECHNICAL NOTES

PLEASE QUERY THE NLM/MEDLINE NEWS FILES UNDER TSO DAILY

TRAINING FEEDBACK

As the on-line services of the National Library of Medicine become more diverse and sophisticated, it becomes increasingly important to receive feedback from the user population to aid in the evaluation and improvement of the training program.

Within the next few weeks, NLM will be contacting all those who have attended MEDLINE Training Classes here and at UCLA. In so doing, we hope to receive candid impressions, frank comments, and thoughtful suggestions which will help us to plan future training and continuing education programs.

SDILINE UPDATES

Until the data base is regenerated for MEDLARS II, SDILINE will be cumulative. This will mean that in late January when SDILINE is updated it will contain both January and February Index Medicus citations. In order to make it possible to retrieve February citations only, an extra tag will be added to the Journal Title Code (JC) field for all February citations. Thus you will need to add AND FEB (JC) to your normal search statement to retrieve the equivalent of a separate February SDILINE. The same procedure may also be necessary for March: MAR (JC) and April: APR (JC), unless the data base is regenerated earlier.

MEDLINE TRAINING CLASS AT NLM

A MEDLINE Training Class has been scheduled for March 4 - March 22, 1974 at the National Library of Medicine. Additional training classes will be announced later.

TECHNICAL BULLETIN INDEX

Beginning this year, the Index to the Technical Bulletin which accompanies the January issue, will also be published quarterly in March, June and September.

STANDARDIZED CHARGES FOR MEDLINE SEARCHES

Joseph Leiter, Ph.D. Associate Director
Library Operations, NLM

One of the major objectives of the Biomedical Communications Network has been to provide equal access to users of biomedical information. In order to implement equal access to MEDIARS and later to MEDLINE services, the extension of such services has been integrated with the Regional Medical Library Network.

This outreach and extension of services has proceeded very successfully. During the first year of MEDLINE, direct services were extended from eleven RML libraries to almost all the medical school libraries in the United States, including also a substantial number of other medical installations. During the second year (1973) the extension of MEDLINE to hospitals and hospital libraries has proceeded well. A further step toward equalization of access was accomplished when terminal connect charges were established. At this time these charges were standardized for all users and the added burden of cost resulting from toll charges was eliminated.

To date there has been no standardized charge by MEDLINE institutions for analyst costs in preparing the search request. Where charges have been imposed it has varied up to $15.00 per search with the preponderance of charges being five dollars or less.

At a meeting of the RML Directors on December 17 and 18, the issue of standardized charges by MEDLINE Centers was reviewed, and, as a result, the following maximum charge level has been established to become effective on March 1, 1974. This has been established in order to identify an average level of personnel and connect time service for any search. Any effort which would go beyond this level would fall outside the expected service required for a MEDLINE search.

The standardized fee schedule will be as follows:

	Maximum Charge
Search analyst time (up to one-half hour)	$5.00
Terminal connect time (up to 20 minutes and 5 pages of printout)	2.50
Total Maximum Charge	$7.50

Search analyst time includes any search negotiation time as well as terminal use time. Note: This charge is the maximum a MEDLINE Center is to charge both affiliated and non-affiliated users per search. Where feasible, users should be able to use the system themselves without the intervention of a search analyst. In these cases the charge for personnel time should be appropriately reduced or eliminated.

It would be desirable, 1) to post such charges so that the user as well as the search analyst will be fully aware of the elements of cost, and 2) to provide a level of service which is consistent with the service charge.

ELHILL 2 AND STAIRS: A COMPARISON

Susanne M. Humphrey
MeSH Section, NLM

On-line bibliographic searching of the MEDLARS citation file is currently available via two separate retrieval programs. One is ELHILL 2, the program for operating MEDLINE (MEDLARS On-Line), developed at the National Library of Medicine and operational as of October 1971. The other, STAIRS - AQUARIUS (STorage And Information Retrieval System - A QUery And Retrieval Interactive Utility System), to be referred to as STAIRS in this article, is an IBM software package instituted in December 1972 by the SUNY BCN (State University of New York, Biomedical Communication Network) as a more flexible replacement for IBM's Document Processing programs which first became operational in 1968.

Although these systems allow searching of other data bases (including non-MEDLARS data bases), the only retrieval file common to both is the MEDLARS citation file. The following is a tabular comparison of ELHILL and STAIRS for on-line searching of the MEDLARS citation file with respect to data base characteristics, basic terminal interactions, commands, search statements, and printing citations resulting from on-line or off-line processing. Only those on-line capabilities applicable to the Search Analyst in the field are considered, while those which may be used only by authorized personnel (e.g. for publication-oriented retrievals) are excluded.

The purpose here is to present an objective contrast so that the reader may form his own opinion as to the capabilities, drawbacks of and trade-offs between the two systems.

Data Base Characteristics	ELHILL 2	STAIRS
File segmented	By journal: MEDLINE (about 1100 of 2400 Index Medicus journals), COMPFILE (other Index Medicus journals plus special list journals), except for SDILINE which covers all journals for the current awareness month	By Index Medicus years: im73, im72, im71, im70, im69, im68, im67, im66, im65, im64, plus imca for the special awareness month; special groupings for off-line processing only (See below.)
Current on-line processing file	MEDLINE covering Jan 70 thru current month, SDILINE	im73, im72, im71, im70 (last half only), and imca
Available for off-line processing only	COMPFILE covering Jan 70 thru current month (some on-line interaction showing postings number; no string-searching capability)	im70 (entire year), im69, im68, im67, im66, im65, im64, allon (im71-current month), alloff (im66-im70), all (im64-current month), and 6465 (im64-im65)
Data base after login	MEDLINE is default data base	No default data base; must specify

Commands listed alphabetically by ELHILL 2 commands

ELHILL 2	STAIRS
"DIAGRAM___"	..display___
"ERASEBAK___" "ERASEALL" "RESTACK___TO___"	..purge___
"EXPLAIN___"	..help___
"FILE___"	..change*___
"FILES ?"	-----
"FIND___" (See Basic terminal interactions-default mode.)	..search*___
"HELP"	-----
"MESHNO___"	-----
"NEIGHBOR___"	-----
"PRINT___"	..browse___*___
"PRINT OFF-LINE___"	..save offline___
"RENAME___TO___"	-----
"STOP"	..off
"TREE___"	-----
TS___	..scan*___
"USERS"	-----
"VERSION___ ___"	-----
-----	..exec___
-----	..save___
-----	..save offline,dlps__
-----	..save offline,sa___,___
-----	..save offline,sm___,___
-----	..save offline,sp___
-----	..save ps__
-----	..select*___
-----	..set detail=on/off
-----	..set show=on/off
-----	..sort

Commands listed alphabetically by STAIRS commands

ELHILL 2	STAIRS
"PRINT___"	..browse___*___
"FILE___"	..change*___
"DIAGRAM___"	..display___
-----	..exec___
"EXPLAIN___"	..help___
"STOP"	..off
"ERASEBAK___" "ERASEALL" "RESTACK___TO___"	..purge___
-----	..save___
"PRINT OFF-LINE___"	..save offline___
-----	..save offline,dlps__
-----	..save offline,sa___,___
-----	..save offline,sm___,___

Commands listed alphabetically by STAIRS commands (Continued)

ELHILL 2	STAIRS
-----	..save offline,sp___
-----	..save ps__
TS___	..scan*___
"FIND___" (See Basic terminal interactions-default mode.)	..search*___
-----	..select*___
-----	..set detail=on/off
-----	..set show=on/off
-----	..sort
"FILES ?"	-----
"HELP"	-----
"MESHNO___"	-----
"NEIGHBOR___"	-----
"RENAME___TO___"	-----
"RESTART"	-----
"TREE___"	-----
"USERS"	-----
"VERSION___ ___"	-----

Commands in ELHILL 2 having no counterpart in STAIRS	Function
"FILES ?"	Shows user what file he is logged into and what other files are available that particular day
"HELP"	Provides the user with assistance by specifying alternate actions relative to his status in the program
"MESHNO___"	Prints the MeSH classification number and cross-references of specified term
"NEIGHBOR___"	Allows the user to search up and down the data base and find the entry terms closest (or identical) to the specified term
"RENAME___TO___"	Renames any command name or command name abbreviation, the logical connectors AND, OR, and AND NOT, and the various option specifier names in the PRINT and VERSION commands
"RESTART"	Deletes all search statements as well as special instructions given the program, i.e. RENAME and VERSION, and returns the user to the program greeting

Commands in ELHILL 2 having no counterpart in STAIRS (Continued)	Function
"TREE___"	Displays the hierarchical position in the MeSH Tree Structures of the specified term by printing superordinate term, specified term, subordinate term(s) (with an asterisk if that/those term(s) has/have subordinate(s)), and MeSH "see also related" cross-references
"USERS"	Shows how many users are logged into the MEDLINE system at that particular time
"VERSION___ ___"	Used to change the length of the standard program messages

Commands in STAIRS having no counterpart in ELHILL 2	Function
..exec	Notifies the system that the user wants to have the query that he had previously saved (see..save___ and ..save ps__ below.) executed against the data base to which he is currently signed on
..save___	Stores searches labelled with a unique four-character code (not to begin with "ps") to identify it for processing at a later time during the same day (These are automatically purged every night.) using the ..exec___ command (See ..exec___ above.)
..save offline,dlps__	Allows the user to purge a permanent save (see ..save ps__ below.)
..save offline,sa___,___	Automatic SDI service - allows the user to store searches labelled with a unique four-character code which are to be executed automatically against the current awareness data base whenever it changes (For modifying automatic SDI searches see ..save offline, sm___,___ below; for purging them see ..save offline, sp___ below.)
..save offline,sm___,___	Allows the user to purge an automatic SDI search (See ..save offline___,___ above.)
..save offline,sp___	Allows the user to purge an automatic SDI search (See ..save offline___,___ above.)

Commands in STAIRS having no counterpart in ELHILL 2 (Continued)	Function
..save ps__	Permanent saves - stores searches labelled with a unique four-character code beginning with "ps" for processing at a later date using the ..exec___ command (see ..exec___ above.) (For purging permanent saves see ..save offline,dlps__ above.)
..select*___	Used for restricting a document list created by a previous search or scan statement according to language (See Search statements-categories directly searchable-language.)
..set detail=on/off	..set detail=on causes the system to print an occurrence statistic for each individual keyword within a search statement as well as a final result statistic for the search statement as a whole; ..set detail=off is the default condition assumed by the system if the user doesn't enter either ..set detail command
..set show=on/off	..set show=on causes an immediate change-over from the search, select, or scan mode to browse mode and the automatic return of the first citation's author, title, and source; ..set show=off is the default condition assumed by the system if the user doesn't enter either ..set show command
..sort	Enables the user to have his output sorted in alphabetical sequence by language; applies only to on-line processing

Basic terminal interactions	ELHILL 2	STAIRS
Logon	/LOGIN MEDXXXXX	aqua XXXX usrXX
User cue	USER:	_ (underline)
Command format	"____"	..____
Default mode	Search is default mode	No default mode, must specify ..search
Entry of main heading or subheading terms	The first 36 characters input are validated. Headings containing AND must be disguised, e.g.: A#D	Hyphenate between words in headings; omit apostrophes; MAN-POWER; ANTAGONISTS-INHIBITORS

Basic terminal interactions (Continued)	ELHILL 2	STAIRS
Truncation symbol	#	$___ (May specify the maximum number of letters that may follow the root or word being truncated)
Erase entire line symbol	$	?
Long search statements	End the first and each succeeding line with either an AND or an OR; the user will be prompted for each new line by a continuation cue	End the line with a word (but do not split compound headings), space, or operator, then carriage return, and continue input on the next line; single search statement is limited to 240 characters, including spaces and character deletions for correcting errors, so more than two lines are rarely needed
Search space per session per data base		
Number of search statements	16	999
Deletion of search statements	"ERASEBAK___" - deletes the search statement enumerated and later search statements while retaining earlier ones "ERASEALL" - deletes all search statements "RESTACK___TO___" - selectively saves search statements and deletes unwanted ones; involves renumbering of search statements to be saved	..purge___ - deletes individual, a series of, or all search statements ..purge SSN; ..purge SSN,SSN; ..purge all
Response anticipation	No	Yes; allows the user to enter several consecutive inputs without having to engage in the interactive dialog. For example, the user may enter a search statement and on-line print instruction as one

Basic terminal interactions (Continued)	ELHILL 2	STAIRS
		continuous input, e.g. (ssn) 1 ..search*lung-neoplasms and smoking*..browse 1 1,2,3*doc=1,3 (This expression will cause the author, title, and source of the first three citations matching the search "lung neoplasms and smoking" to be printed. The number of documents retrieved will not be shown.)
Search statements	**ELHILL 2**	**STAIRS**
Categories directly searchable		
author	Yes	No ..scan*author eq/ne '___'
title	No (except for single words within titles in SDILINE) TS___; scans 30 at a time followed by a continuation cue	No ..scan*title eq/ne '___'; scans all at one time; apostrophes in string entered as double quotes
language	Yes	No ..select*SSN lang eq/ne '(three-character language abbreviation, separated by comma if more than one)'
journal	Yes Use JTC	No ..scan*source eq/ne '(journal title abbreviation)' ..scan*jtc eq/ne 'journal title code)'
year of publication	Yes (year) thru (year); only in combination with other directly searchable elements or SSN using AND or AND NOT	No ..scan*source eq/ne '(last two digits of year).'

Search statements (Continued)	ELHILL 2	STAIRS
entry date	Yes	No Not a citation element
Logical operators and main heading-subheading combinations	AND, OR, AND NOT, slash (/) between MH and SH	"and", "or", "not"; "with" between MH and SH; headings separated by a space="or" relationship
Algebraic use of parentheses in a SS	No	Yes e.g. (MH MH) with (SH SH) not (1 3)
explosion	Yes EXPLODE (tree #)	projected capability
SH alone	projected capability	Yes
SH attached to string of "ored" MHs	projected capability	Yes
String of "ored" SHs attached to MH	projected capability	Yes
SH attached to explosion	projected capability	projected capability
String of "ored" SHs attached to explosion	projected capability	projected capability
Differentiate between MH and SH expressed by the same term	projected capability	No
Designate non-print MH	No	Yes MH.nim. (Use of .nim. parallels use of .im.)
Designate print MH	Yes *MH	Yes MH.im.
Designate print MH-SH combination	Yes *MH/SH	Yes MH.im. with SH MH with SH.im. (MH with SH).im.
Designate print string of "ored" terms	No	Yes (MH MH MH).im.

Search statements (Continued)	ELHILL 2	STAIRS
Designate print explosion	projected capability	projected capability
Designate print SH regardless of MH to which it is attached	No	Yes SH.im.
Designated print string of "ored" SHs regardless of MH to which they are attached	No	Yes (SH SH SH).im.
Designate print an entire previous SS consisting of "ored" MHs and/or SHs and/or MH-SH combinations	No	Yes SSN.im.
Negation in single string search statement without "anding"	No	Yes ..scan*title ne '___'
Negation in single string search statement with "anding"	Yes TS___AND NOT___	No

Printing citations	ELHILL 2	STAIRS
Citation elements	Field name	Paragraph name
author	AU	AUTHOR
title	TI	TITLE
language	LA	SOURCE
journal title abbreviation	SO	SOURCE
journal title code	JC	JTC
volume, pages, date	SO	SOURCE
year of publication	PY, SO	SOURCE
citation accession number	AN	JTC
citation entry date	ED	-----
citation identifier	CI	-----
headings	MH	IM, NIM - two separate fields for print and non-print headings, respectively
Order of citation elements	AU, TI, SO, LA, AN, PY, ED, MH, JC, CI	AUTHOR, TITLE, SOURCE, JTC, IM, NIM

Printing citations (Continued)	ELHILL 2	STAIRS
Order of headings within headings fields	Alphabetically by main headings and main heading/ subheading combinations	Alphabetically by main headings with no subheading, then alphabetically by subheading, each subheading followed by an * and alphabetically the main heading(s) to which they are attached
On-line processing		
Output defaults to previous search statement number (SSN)	Yes	No; must specify SSN ..browse SSN
Default print formats	Yes "PRINT"-AU, TI, SO; "PRINT TRIAL"-AU,TI, SO, MH; "PRINT FULL" -AU, TI, SO, LA, ED, MH, JC, CI	Yes ..browse SSN all - AUTHOR, TITLE, SOURCE, JTC, IM, NIM
May specify citation elements	Yes; by name, e.g. "PRINT AU, TI"	Yes; by number where AUTHOR=1, TITLE=2, SOURCE=3, JTC=4, im=5, NIM=6, e.g. ..browse SSN 1,2
Must indicate some print format each time (either use default format or specify elements)	Yes	No; once a print format has been specified, subsequent print formats in the same data base session default to it
Default for number of citations printed	Yes "PRINT"-five "PRINT TRIAL'-two	No
May specify number of citations printed	Yes "PRINT (no.)"- after each five, gives continuation cue	Yes ..browse___*(carriage return)- prints one; ..browse___*doc= (cit #,cit #)-citation # thru citation #; ..browse___*doc=all- prints all non-stop (can be dangerous!)

Printing citations (Continued)	ELHILL 2	STAIRS
On-line processing (con'd)		
May print specific citation in document list	Yes "PRINT (no. of citations) SKIP (# of citation preceding citation to be printed)"	Yes ..browse___*doc=(# of citation to be printed) or (citation #, citation #) where comma=thru
Print combined output of more than one SSN	Yes "PRINT SSN, SSN___"	No
Print document list from search run against data base other than the one to which user is currently connected without reentering search	No	Yes ..save (four-character label)* ..change*(new data base name)* ..exec (four-character label); then after search is executed, enter a ..browse___ command
sorting capability	No	Yes (See Commands in STAIRS having no counterpart in MEDLINE.)
Off-line processing		
Output defaults to previous SSN	Yes	Yes
Default print formats	Yes "PRINT OFF-LINE"-AU, TI, SO; "PRINT OFF-LINE TRIAL"-AU, TI, SO, MH; "PRINT OFF-LINE FULL"-AU, TI, SO, LA, ED, MH, JC, CI	Yes ..save offline,,___-AUTHOR, TITLE, SOURCE; ..save offline,, all___-AUTHOR, TITLE, SOURCE, JTA, IM, NIM
May specify citation element	Yes; by name, e.g. "PRINT OFF-LINE AU, TI"	Yes; by number where AUTHOR=1, TITLE=2, SOURCE=3, JTC=4, IM=5, NIM=6, e.g. ..save offline,, (1.2)___
Must indicate some print format each time (either use default format or specify elements)	Yes	Yes
Default and limit for number of citations printed	Yes Default=300 Limit=300	Yes Default=50/data base year Limit=799/data base year

Printing citations	ELHILL 2	STAIRS
Off-line processing (con'd)		
May specify number of citations printed	Yes "PRINT OFF-LINE (no. of citations)"	Yes ..save offline,,,(no. of citations)___
May print specific citation in document list	Yes "PRINT OFF-LINE (no. of citations) SKIP (# of citation preceding citation to be printed)"	No
Print combined output of more than one SSN	Yes "PRint OFF-LINE SSN, SSN"	No
Print document list from search run against data base other than the one to which user is currently connected	No	Yes ..save offline,(data base name or default to imca),___
Default data base	Yes Only data base to which user is currently connected	Yes Default is imca
Mailing of off-line printouts	User dialog enabling printout to be sent to anyone stipulating a mailing address	Mailed to terminal; user identification limited to 10 characters, i.e. ..save offline,,,,(user id)
Automatic monthly printing of document list from previously entered automatic SDI search	No	Yes; automatic SDI searches are executed automatically against the current awareness data base whenever it changes i.e. monthly (See Commands in STAIRS having no counterpart in MEDLINE-..save offline,sa___,___.)

SERLINE LOCATOR CODES

Thelma Charen
Index Section, NLM

Data on holdings of the various medical libraries in the eleven regions are retrievable in SERLINE by the LOCATOR CODES printed in the MEDLINE REFERENCE MANUAL, Section 8: SERLINE, Appendix D on pages 150-153. The full name of each institution appears there in arrangement by region.

The list below is an alphabetical arrangement of these libraries in the briefest possible form for instant access to the LOCATOR CODE. The word LIBRARY has either been omitted entirely in the interests of brevity or is abbreviated in context to "Libr." This and all other abbreviations of the generic elements of a name are abbreviated according to the same international word list used to formulate journal title abbreviations in the LIST OF JOURNALS INDEXED IN INDEX MEDICUS. The only exceptions are personal names and place names to avoid confusion.

As many brief entries are supplied as are deemed useful, i.e., the Lyman Maynard Stone Library of the University of Connecticut Health Center appears under LYMAN MAYNARD STONE, under STONE and under CONNECTICUT.

A. W. Calhoun (Emory) . . .06EMU

Albert R. Mann
(Cornell) 02NAC

Alabama (Univ) 06ALA

Arizona (Univ) 11ARI

Arkansas (Univ) 09ARK

Berkeley, Univ of
California 11CBE

Boston Univ 01BOS

Bowman Gray Sch
of Med 04BOW

Brooklyn, State
Univ of New York
Med Res Libr 02SBR

Brown Univ 01BRN

Buffalo, State Univ
of New York. 02SBU

Calhoun (Emory). 06EMU

California (Univ)
(Berkeley) 11CBE

California (Univ)
(Davis). 11CDA

California (Univ)
(Irvine) 11CIR

California (Univ)
Los Alamos Sci Lab 09CNM

California (Univ)
(Los Angeles). 11CLA

California (Univ)
(San Diego). 11CSD

California (Univ)
(San Francisco). 11CSF

Case Western
Reserve Univ 05CLE

Cincinnati (Univ). 05CIN

Clendening (Univ
of Kansas) 08KAN

Cleveland Health Sci Libr (Case Western Reserve). 05CLE

Coll of Pharm & Sci (Philadelphia). 03PPS

Coll of Physicians (Philadelphia). 03CPP

Coll of Vet Med (Colorado State). . . . 08CSU

Colorado State Univ . . . 08CSU

Colorado (Univ) 08COL

Columbia Univ Med Libr. . 02CPS

Columbia, Univ of Missouri Med Sch. . . . 08MCO

Connecticut (Univ). . . . 01CON

Cornell, New York State Coll of Agric 02NAC

Cornell Univ Albert R. Mann Libr. 02NAC

Cornell Univ Med Coll Libr 02COR

Countway (Harvard). . . . 01HMS

Creighton Univ. 08CRU

Crerar Libr 07JCL

Dana (Dartmouth). 01DAR

Dana (Univ of Vermont). 01VER

Dartmouth Coll. 01DAR

Davis, Univ of California. 11CDA

Denison (Univ of Colorado). 08COL

Dent Libr, Univ of Pennsylvania. 03PED

Detroit (Univ) 05DET

Dickinson Sch of Dent 02FDD

Duke Univ. 04DUK

Eastern Pennsylvania Psychiatr Inst 03PPI

Eccles (Utah). 08UTA

Emory Univ 06EMU

Falk (Univ of Pittsburgh) 03PIT

Farleigh Dickinson Sch of Dent. 02FDD

Florida (Univ) 06FLO

Francis A. Countway (Harvard). 01HMS

George Washington Univ 04GWU

Georgetown Univ. 04GTU

Georgia, Med Coll. 06GEO

Harvard Univ 01HMS

Gray 04BOW

Hershey Med Cent 03HER

Hopkins. 04JHU

Houston Acad of Med. 09TEX

Howard Univ. 04HOW

Illinois (Univ). 07ILL

Indiana Univ 07IND

Iowa (Univ). 07IOW

Irvine, Univ of California 11CIR

J. Hillis Miller (Univ of Florida). . . .06FLO

Jefferson Univ 03JEF

John Crerar Libr 07JCL

Johns Hopkins Univ 04JHU

Kansas (Univ). 08KAN

Kentucky (Univ). 05KEN

Kornhauser (Univ of Louisville) 05LOU

Lane (Stanford). 11STA

Loma Linda Univ. 11CLL

Los Alamos Sci Lab 09CNM

Los Angeles County Med Assoc. 11LAC

Los Angeles, Univ of California 11CLA

Louisiana State (New Orleans). 09LNO

Louisiana State (Shreveport) 09LSU

Louisville (Univ). 05LOU

Lyman Maynard Stowe (Univ of Conn). 01CON

Maine Med Cent 01MAN

Mann (Cornell). 02NAC

Maryland (Univ) 04MDB

Maryland, Med & Chir Fac. 04MCF

Massachusetts (Univ). 01MAS

Matas (Tulane). 09TUL

Mayo Clin 07MAY

Med & Chir Fac of Maryland. 04MCF

Med Coll of Georgia 06GEO

Med Coll of Ohio (Toledo). 05OHT

Med Coll of Wisconsin 07WIM

Med Libr Cent of New York 02MLC

Med Sch, Univ of Pennsylvania. 03PEM

Med Univ of South Carolina. 06SCA

Meharry Med Coll. 06MEH

Menninger Clin. 08MEN

Miami (Univ). 06MIA

Michigan (Univ) 05MIC

Michigan State Univ. 05MSU

Middleton (Univ of Wisconsin) 07WIS

Miller (Univ of Florida). 06FLO

Minnesota (Univ). 07MIN

Mississippi (Univ). . . . 06MIS

Missouri (Univ) (Columbia). 08MCO

Moody (Univ of Texas). 09TGA

Nebraska (Univ) 08NEB

Nevada (Univ) 11NEV

New Jersey Coll of Med & Dent 02NJN

New Mexico (Univ) 09MEX

New Orleans, Louisiana State Univ. 09LNO

New York, State Univ (Brooklyn) 02SBR

New York, State Univ (Buffalo). 02SBU

New York, State Univ (Stony Brook). 02SSB

New York, State Univ (Syracuse) 02SSY

New York Acad of Med 02NYA

New York State Coll of Agric (Cornell) 02NAC

New York State Med Libr. 02NYS

New York State Psychiatr Inst. 02NYP

Norris (Univ of Southern California) . . 11SOC

North Carolina (Univ). 04NCA

Northwestern Univ. 07NWU

Ohio State Univ. 05OSU

Oklahoma (Univ). 09OKL

Oregon (Univ). 10ORE

Pennsylvania, Eastern Pennsylvania Psychiatr Inst 03PPI

Pennsylvania (Univ) Dent Libr. 03PED

Pennsylvania (Univ) Med Sch. 03PED

Pennsylvania (Univ) Vet Libr 03PEV

Philadelphia Coll of Pharm & Sci. 03PPS

Philadelphia, Coll of Physicians 03CPP

Pittsburgh (Univ) Falk Libr. 03PIT

Pittsburgh (Univ) Sch of Public Health 03PPH

Psychiatric Inst, New York State 02NYP

Puerto Rico (Univ) 06PUR

Radcliff (Loma Linda). 11CLL

Reno, Univ of Nevada. 11NEV

Rowland (Univ of Mississippi). 06MIS

Rudolph Matas (Tulane) 09TUL

Rutgers Univ. 02RUT

San Diego, Univ of Calif. 11CSD

San Francisco, Univ of California. 11CSF

Shiffman (Wayne State). 05WSU

Shreveport, Louisiana State Univ. 09LSU

South Carolina, Med Univ. 06SCA

South Dakota (Univ) . . . 08SOD

South Florida (Univ). 06SOF

Southern California (Univ) Norris Med Libr. 11SOC

Southwestern Med Sch (Univ of Texas) 09TSW

Springfield Hosp (Massachusetts) 01SPH

St. Louis Univ. 08STL

Stanford Univ 11STA

State Univ of New York (Buffalo). 02SBU

State Univ of New York (Stony Brook). . . 02SSB

State Univ of New York (Syracuse) . . 02SSY

State Univ of New York Med Res Libr (Brooklyn). 02SBR

Stony Brook, State Univ of New York. . . . 02SSB

Stowe (Univ of Conn). 01CON

SUNY (Brooklyn) 02SBR

SUNY (Buffalo). 02SBU

SUNY (Stony Brook). 02SSB

SUNY (Syracuse) 02SSY

Syracuse, State Univ of New York. 02SSY

Temple Univ 03TEM

Tennessee (Univ). 06TEN

Texas Med Assoc 09TMA

Texas (Univ) Med Sch (San Antonio) 09TSA

Texas (Univ) Moody Med Libr. 09TGA

Texas (Univ) South-western Med Sch 09TSW

Thomas Jefferson Univ 03JEF

Toledo, Med Coll of Ohio. 05OHT

Tompkins-McCaw (Virginia Commonwealth Univ) 04TMC

Tufts Univ. 01TUF

Tulane Univ 09TUL

UCLA. 11CLA

Upstate Med Cent (Syracuse). 02SSY

Utah (Univ) 08UTA

Vanderbilt Univ 06VAN

Vermont (Univ). 01VER

Vernier Radcliff (Loma Linda). 11CLL

Vet Libr, Univ of Pennsylvania 03PEV

Virginia (Univ) 04VIR

Virginia Commonwealth Univ. 04TMC

Washington, George Washington Univ 04GWU

Washington (Univ) (Seattle) 10WAS

Washington Univ (St. Louis) 08WSL

Wayne State Univ. 05WSU

Welch (Johns Hopkins). 04JHU

West Virginia Univ. 04WVA

Western Reserve Univ. 05CLE

Wisconsin, Med Coll. 07WIM

Wisconsin (Univ). 07WIS

Wyoming (Univ). 08WYO

Yale Univ 01YAL

MEDLINE STATISTICS
NOVEMBER 1973

The statistical reporting period runs from the first to the last day of each month. The statistics are a total of the usage of all MEDLINE files (MEDLINE, SDILINE, COMPFILE, CATLINE, and SERLINE) both at NLM and at SUNY. If your statistics differ greatly from these, please notify MEDLARS Management Section.

MEDLINE CENTER	TOTAL SEARCHES @ SYM	TOTAL OFF-LINE PRINTS	TOTAL PAGES	TOTAL HOURS	AVERAGE MIN. PER SEARCH
* RC: 1					
BOSTON U SCH MED..MED LIB	146	27	265	25.8	10.6
BROWN U..SCI LIB	2	0	0	.5	15.0
U CONN..L ' STOVE LIB	284	52	600	46.8	9.9
DARTMOUTH COL..DANA BIOMED LIB	136	18	231	18.1	8.0
HARVARD U..F COUNTWAY LIB	54	33	761	19.1	21.2
MAINE MED CTR	50	3	22	12.7	15.2
U MASS..MED SCH LIB	58	6	42	14.6	15.1
MASS GEN HOSP..TREADWELL LIB	52	19	172	13.4	15.5
MASS INST OF TECHNOLOGY	7	1	19	2.9	24.9
TUFTS U..MED DENT LIB	344	42	327	44.2	7.7
U VERMONT..DANA MED LIB	71	6	50	10.5	8.9
YALE U..MED LIB	140	42	373	49.7	21.3
* TOTAL FOR RC: 1	1344	249	2862	258.3	
* RC: 2					
ALBERT EINSTEIN COL MED..LIB	16	4	67	7.8	29.2
ALBANY MED COL	1	0	0	.3	18.0
ELLIS HOSP..LIB	22	0	0	4.6	12.5
CORNELL U MED COLL..LIB	57	8	41	7.3	7.7
SLOAN-KETTERING CANCER CTR	3	2	15	.3	6.0
COLUMBIA U..MED LIB	183	47	664	38.4	12.6
COL MED DENT NJ..LIB	207	68	859	25.6	7.4
NY ACAD MED..NY NO NJ RML	51	19	400	12.4	14.6
UNIV OF ST OF NY..THE NY ST LIB	0	0	0	.2	.0
RUTGERS U	68	17	139	20.1	17.7
SUNY ALBANY..CENT OFF COMPUTER CTR	0	0	0	.0	.0
MED RES LIB BROOKLYN	54	4	42	8.2	9.1
SUNY BUFFALO	53	0	0	23.1	26.2
SUNY STONY BROOK	0	0	0	.0	.0
NEW YORK MED COL...WESTCHESTER MED	22	7	50	3.7	10.1
* TOTAL FOR RC: 2	737	176	2277	152.0	
* RC: 3					
COL PHYSICIANS PHILA..LIB	48	22	294	19.1	23.9

MEDLINE CENTER	TOTAL SEARCHES @ SYM	TOTAL OFF-LINE PRINTS	TOTAL PAGES	TOTAL HOURS	AVERAGE MIN. PER SEARCH
MANHATTAN MED COL..LIB	7	5	52	2.6	22.3
PENN STATE U..HERSHEY MED CTR LIB	102	10	138	14.3	8.4
JEFFERSON MED COL..LIB	19	5	157	6.8	21.5
MED COL PA	79	21	276	11.6	8.8
U PENN..SCH MED LIB	49	14	125	18.5	22.7
U PITTSBURGH..FALK LIB	33	6	55	10.1	18.4
TEMPLE U..HEALTH SCI CTR LIB	55	36	509	15.5	16.9
V A HOSP ERIE PA..LIB	20	0	0	3.0	9.0
* TOTAL FOR RG: 3	412	128	1606	101.5	
* RG: 4					
JOINT MED LIB USA USAF..OFF SURG GE	57	10	95	15.0	15.8
ANDREWS AFB,MALCOLM GROW USAF MED C	1	0	0	.2	12.0
NIH..NIAMD	51	8	56	11.2	13.2
BOWMAN GRAY SCH MED..LIB	134	23	338	17.4	7.8
CHARLESTON AREA MED CTR	9	0	0	2.4	16.0
D C GEN HOSP..LIB	63	4	20	12.1	11.5
ST ELIZ HOSP..PROF LIB	7	1	14	1.0	8.6
FAIRFAX HOSP	52	3	22	7.0	8.1
CHILDRENS HOSP.NATL.MED CTR	0	0	0	.0	.0
NIH...DIV OF COMPUTER RES AND TECH	4	0	0	.4	6.0
NIH..DRG	15	5	121	5.3	21.2
DUKE U SCH MED..MED CTR LIB	126	32	293	15.5	7.4
NATL INST ENVIRON HEALTH SCI	31	7	69	9.4	18.2
EASTERN VIRGINIA MED SCH	10	3	31	1.8	10.8
FED AMER SOC EXP BIOL..OFF BIOL HAN	14	1	5	2.1	9.0
FOOD & DRUG ADM ROCKVILLE..ADP SYST	20	7	54	10.3	30.9
GEORGETOWN U MED CTR..DAHLGREN MEM	338	54	517	52.3	9.3
GEORGE WASHINGTON U HOSP..HOSP BR L	283	8	53	62.2	13.2
HOWARD U..MED DENT LIB	41	6	61	8.2	12.0
HEALTH SERV MENT HLTH ADM..LIB	40	29	291	14.2	21.3
JOHNS HOPKINS U..WELCH MED LIB	71	12	237	23.4	19.8
LIB CONGRESS..CONGRESS REF SERV	0	0	0	.0	.0
NATL LIB MED..NAVAL RM 152	244	144	1744	58.4	14.4
MED CHIR FAC MARYLAND..LIB	165	17	104	15.5	5.6
U MARYLAND BALTIMORE..HEALTH SCI LI	342	79	674	87.2	15.3
NIH..NIMH LIB	4	5	17	.8	12.0
NATL AGRICULTURAL LIBRARY	27	5	33	4.7	10.4
BUR NARC DANG DRUGS..DRUG CTRL DIV	3	11	238	1.1	22.0
U NC..HEALTH SCI LIB	190	36	317	28.3	8.9
NIH..NATL CANCER INST	52	17	313	19.7	22.7
NIH..NATL HEART INST	19	0	0	6.3	19.9
NIH..LIB	486	294	4040	77.9	9.6
NATL NAVAL MED CTR..STITT LIB & RES	187	17	170	28.9	9.3
PHARMACEUTICAL MFR ASSN	54	10	65	9.5	10.6

MEDLINE CENTER	TOTAL SEARCHES @ SYM	TOTAL OFF-LINE PRINTS	TOTAL PAGES	TOTAL HOURS	AVERAGE MIN. PER SEARCH
NATL LIB MED..DSD	290	52	436	90.1	18.6
ST ELIZ HOSP SYR..MEM LIB	59	4	43	9.4	9.5
VA COMMONWEALTH UNIV...MED COL OF V	7	0	0	2.3	19.7
U S GOVT	7	3	43	1.9	15.4
V A CTRL OFF 810 VERMONT AVE NW DC	65	10	154	12.7	11.7
V A HOSP DC..LIB	70	0	112	12.1	10.4
U VA..MED SCH LIB	213	67	724	44.9	12.6
WASHINGTON HOSPITAL CTR..MED LIB	31	0	0	5.9	11.4
WALTER REED ARMY MED CTR..GEN HOSP	67	11	78	31.0	27.8
WVA U..MED CTR LIB	95	4	57	22.2	14.0
* TOTAL FOR RG: 4	4044	1017	11639	842.1	
* RG: 5					
CHEMICAL ABSTRACTS SERVICE	0	0	0	.0	.0
U CINCINNATI..MED CTR LIB	165	32	309	24.6	8.9
CASE WEST RES U..CLEVELAND HEALTH S	66	12	197	13.5	12.3
U DETROIT..SCH DENT LIB	28	5	32	5.9	12.6
HARPER HOSP..DEPT LIB	53	0	0	6.6	7.5
HENRY FORD HOSP	75	10	140	11.2	9.0
WILLIAM BEAUMONT HOSP..MED LIB	33	6	74	6.8	12.4
SINAI HOSP DETROIT..MED LIB	20	0	0	2.5	7.5
ENVIRONMENT PROTECT AG CINCINNATI	88	62	985	15.6	10.6
U KY..MED CTR LIB	214	28	346	18.1	5.1
U LOUISVILLE..KORNHAUSER HEALTH SCI	169	28	193	30.1	10.7
U MICH..MED CTR LIB	47	28	486	9.9	12.6
MICH STATE U..SCI LIB	64	36	364	15.0	14.1
MED COL OHIO TOLEDO..LIB	39	0	0	4.4	6.8
OHIO STATE U COL MED..HEALTH CTR LI	276	42	446	38.5	8.4
WAYNE STATE U..SHIFFMAN MED LIB	63	35	358	17.9	17.0
* TOTAL FOR RG: 5	1400	324	3930	220.6	
* RG: 6					
U ALA..LISTER HILL CTR HEALTH SCI	66	31	753	14.9	13.5
EMORY U..A W CALHOUN MED LIB	168	92	1069	27.5	9.8
U FLA..J H MILLER HEALTH CTR LIB	88	30	381	11.3	7.7
MED COL GA..DIV HEALTH COMM LIB	138	27	370	18.4	8.0
JACKSONVILLE HOSP EDU PROG..J L DOR	10	4	21	4.9	29.4
U MIAMI..L CALDER MEM LIB	103	31	351	17.3	10.1
U MISS MED CTR..ROWLAND MED LIB	32	24	134	6.9	12.9
MED U SC..LIB	111	20	114	14.3	7.7
U SOUTH ALABAMA..BIOMED LIB	19	4	20	4.1	12.9
U SOUTH FLORIDA..MED CTR LIB	47	15	158	5.6	7.1

MEDLINE CENTER	TOTAL SEARCHES Q SYM	TOTAL OFF-LINE PRINTS	TOTAL PAGES	TOTAL HOURS	AVERAGE MIN. PER SEARCH
U TEX..MED UNITS LIB	88	39	389	10.5	7.2
TOXICOLOGY INF RESPONSE CTR..BIOL D	14	24	870	3.9	16.7
V A HOSP DECATUR GA..LIBRARY	129	17	105	21.8	10.1
VANDERBILT U..SCH MED LIB	60	17	81	9.5	9.5
* TOTAL FOR RG: 6	1073	375	4822	170.9	
* RG: 7					
AMER MED ASSOC..ARCHIVE LIB	142	1	10	15.7	6.6
U CHICAGO..BILLINGS HOSP LIB	70	12	134	28.2	24.2
U ILL MED CTR..LIB HEALTH SCI	42	7	89	7.4	10.6
U ILL..ROCKFORD SCH MED LIB	44	9	130	7.4	10.1
IND U..SCH MED LIB	50	1	9	7.4	8.9
U IOWA..MED LIB	150	56	542	28.8	11.5
JOHN CRERAR LIB	90	34	366	25.6	17.1
LUTHERAN GEN HOSP..LIB	42	2	22	6.5	9.3
MAYO FOUND..MAYO CLINIC LIB	89	8	99	16.7	11.3
UNIV OF MINNESOTA,DULUTH..HLTH SCI	2	0	0	.9	27.0
U MINN..BIOMED LIB	75	16	480	19.8	15.8
NORTHWESTERN U..MED & DENT SCH LIB	20	4	21	2.7	8.1
SOUTHERN ILL U..SCH MED LIB	14	2	19	4.0	17.1
ABBOT-NORTHWESTERN HOSP	0	0	0	.0	.0
FAIRVIEW COMMUNITY HOSP...HLTH SCI	9	0	0	1.5	10.0
HENNEPIN CTY GEN HOSP AND METROPOLI	0	0	0	.0	.0
V A HOSP WOOD WISC	80	11	89	15.7	11.8
MED COL WIS..MED DENT LIB	94	19	170	17.7	11.3
U WISC..MIDDLETON MED LIB	222	80	1141	49.0	13.2
* TOTAL FOR RG: 7	1235	262	3321	255.0	
* RG: 8					
U COLO..DENISON MEM LIB	272	82	886	38.0	8.4
CREIGHTON U..HEALTH SCI LIB	62	14	206	9.0	8.7
FITZSIMONS GEN HSP..MED-TEC LIB	55	41	581	12.7	13.9
U KANS..CLENDENING MED LIB	85	15	215	16.9	11.9
U MO COLUMBIA..MED LIB	166	36	301	26.9	9.7
U MO KANSAS CITY..SCH MED LIB	278	22	296	30.2	6.5
U NEBR..MIDCONTINENTAL BML PROG	119	23	193	26.0	13.1
ST LUKES HOSPITAL..LIB	113	1	22	12.6	6.7
ST.LOUIS UNIV...MED CTR LIB	0	0	0	.0	.0
U UTAH..ECCLES MED SCI LIB	89	49	350	21.0	14.2
V A HOSP LINCOLN NB..LIB	27	0	0	8.3	18.4
WASHINGTON U..SCH MED LIB	163	49	585	18.9	7.0

MEDLINE CENTER	TOTAL SEARCHES @ SYM	TOTAL OFF-LINE PRINTS	TOTAL PAGES	TOTAL HOURS	AVERAGE MIN. PER SEARCH
* TOTAL FOR RG: 8	1429	332	3635	220.5	
* RG: 9					
U ARK..MED CTR LIB	0	0	0	.0	.0
WILLIAM BEAUMONT ARMY MEDICAL CENTE	0	0	0	.0	.0
BROOKE GEN HOSP..MED LIB	53	6	23	9.0	10.2
FOOD & DRUG ADM..NATL CTR TOX RES	44	14	422	11.0	15.0
LOUISIANA STATE U NEW ORLEANS..LIB	58	27	221	13.7	14.2
LOVELACE FDN FOR MED ED AND RES	4	0	0	1.3	19.5
LOUISIANA STATE U..SCH MED LIB	26	5	36	5.2	12.0
U MN..LIB MED SCI	102	39	465	30.5	17.9
U OKLA..HEALTH SCI CTR LIB	147	27	230	23.3	9.5
SPARKS REG MED CTR..HEALTH SCI LIB	12	4	73	2.9	14.0
HOUSTON ACAD MED..TEX MED CTR LIB	552	118	1629	51.4	5.6
U TEXAS MED BR GALVESTON..MOODY MED	235	7	60	38.8	9.9
TEXAS MED ASSN..LIB	89	1	8	5.5	3.7
U TEXAS SAN ANTONIO..MED SCH LIB	46	11	161	8.8	11.5
U TEXAS DALLAS..MED SCH LIB	220	51	718	38.1	10.4
TEXAS TECH UNIV SCH OF MED	19	11	90	3.9	12.3
TULANE U..SCH MED LIB	41	20	177	12.3	18.0
* TOTAL FOR RG: 9	1648	341	4313	255.6	
* RG: 10					
ALASKA HEALTH SCI INFO CTR	154	9	108	20.4	7.9
MADIGAN GEN HOSP	122	10	56	9.2	4.5
COLUMBUS HOSP GREAT FALLS MONT..LIB	16	0	0	4.2	15.7
U OREGON..MED SCH LIB	346	1	7	40.0	6.9
SACRED HEART GEN HOSP..MED CTR DR'S	68	0	0	9.5	8.4
V A HOSP BOISE IDAHO..LIB	24	3	26	9.1	22.7
U WASHINGTON..PAC NW REG HEALTH SCI	515	134	1913	81.9	9.5
* TOTAL FOR RG: 10	1245	157	2110	174.3	
* RG: 11					
U ARIZ..MED CTR LIB	103	27	312	23.0	13.4
MILLS MEM HOSP	1	0	0	.3	18.0
NASA AMES RES CTR	22	1	10	7.7	21.0
U OF CALIF GEN LIB	38	13	214	14.4	22.7
U CALIF DAVIS..HEALTH SCI LIB	319	30	555	31.0	5.8
L A CO HARBOR GEN HOSP..MED LIB	181	42	281	25.6	8.5
MEM HOSP MED CTR LONG BEACH..MED LI	372	85	970	28.4	4.6

MEDLINE CENTER	TOTAL SEARCHES O SYM	TOTAL OFF-LINE PRINTS	TOTAL PAGES	TOTAL HOURS	AVE GE MIN. PE SEARCH
[illegible] LOS [illegible] S HOSP..LIB	115	23	208	13.4	7.0
ORTHOPAEDIC HOSPITAL..RUBEL MEM LIB	5	[illegible]	16	[illegible]	[illegible]
U CALIF IRVINE..MED SCI LIB	47	25	300	16.7	21.3
U CALIF L.A...BIOMED LIB PAC SW BMI	1	4	29	13.7	222.0
U CALIF L.A...BIOMED LIB REF SECT	132	78	927	44.7	20.[illegible]
[illegible] ..[illegible] DOLIFE [illegible] LIB	53	[illegible]	[illegible]	17.0	19.[illegible]
U CALIF [illegible]..BIOMED LIB	80	33	548	13.[illegible]	10.4
U CALIF S.F...LIB	125	43	514	27.4	11.[illegible]
U HAWAII..HAMILTON LIB	27	33	643	[illegible]	19.[illegible]
HAWAII MED LIB INC	24	16	264	6.9	17.[illegible]
TRIPLER ARMY MED CT ..MED LIB	10	8	93	[illegible]	18.[illegible]
L A COUNTY MED ASSOC..LIB	39	12	100	10.4	16.[illegible]
MARTIN LUTHER KING JR GEN HOSP..MED	29	4	25	5.7	11.[illegible]
CEDARS-SINAI MED CTR..HOSP LIB	35	2	6	3.0	5.1
CHILDREN'S HOSP L A..DOCTOR'S LIB	66	12	145	8.1	7.4
U NEV RENO..LIFE HEALTH SCI LIB	178	9	40	9.5	3.2
HOAG MEM HSP PRESBYTERIAN..MED LIB	59	0	0	9.0	9.2
ST.JOSEPH HOSP AND CHILDRENS HOSP..	0	0	0	4.5	.0
KAISER FOUNDATION HOSP	14	9	45	2.2	9.4
LETTERMAN GEN HOSP..MED LIB	102	53	921	17.1	10.[illegible]
CALIF. COLLEGE OF PODIATRIC MEDICIN	65	5	48	17.4	16.[illegible]
U SO CALIF SCH MED..NORRIS MED LIB	130	76	1059	36.7	16.9
STANFORD U MED CTR..LANE MED LIB	200	78	1130	31.9	9.6
DAVID GRANT USAF MED CTR	98	16	171	14.0	8.[illegible]
V A HOSP SEPULVEDA CALIF..MED LIB	57	13	116	7.4	7.[illegible]
* TOTAL FOR RG: 11	2727	768	9795	471.1	
* RG: 70					
NATL RES COUNCIL OF CANADA..NATL SC	157	131	2881	20.8	7.9
MCGILL U..MED LIB	248	98	808	51.0	12.3
WALHOUSIE U..W K KELLOG HEALTH SCI	26	11	94	4.6	10.6
U TORONTO..LIB	39	24	449	12.9	19.8
DEPT NATL HEALTH WELFARE..HEALTH PR	34	24	216	5.8	10.2
U MANITOBA..LIB	5	1	5	.4	4.8
MEM U NEWFOUNDLAND..FAC MED LIB	38	3	14	6.1	9.6
U BRITISH COLUMBIA..LIB	46	61	713	15.2	19.8
U CALGARY..LIB	15	8	113	4.2	16.8
U SASKATCHEWAN..HEALTH SCI LIB	22	3	16	3.5	9.5
* TOTAL FOR RG: 70	630	364	5309	124.5	
* RG: 80					
BIBLIOTECA REG DE MED..ORG PAN AMER	0	0	0	.2	.0
I.N.S.E.R.M.	101	22	904	35.5	21.1

MEDLINE CENTER	TOTAL SEARCHES @ SYM	TOTAL OFF-LINE PRINTS	TOTAL PAGES	TOTAL HOURS	AVERAGE MIN. PER SEARCH
BRITISH LIB LEND DIV	6	0	0	8.3	83.0
NATL INST MED RES LIB. ,LONDON	13	0	0	2.5	11.5
* TOTAL FOR PC: 80	120	22	904	46.5	

** GRAND TOTAL - NOVEMBER 1973

TOTAL SEARCHES - @ SYMBOLS	18044
TOTAL OFF-LINE PRINTS	4515
TOTAL PAGES OFF-LINE	56523
TOTAL HOURS	3292.9
AVERAGE MIN. PER SEARCH	10.9

NATIONAL LIBRARY OF MEDICINE

LIBRARY NETWORK/MEDLARS TECHNICAL BULLETIN

of the

Library Component of the Biomedical Communications Network

No. 58 FEBRUARY 1974

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U.S. DEPARTMENT OF HEALTH, EDUCATION, AND WELFARE
Public Health Service
National Institutes of Health

LIBRARY NETWORK/MEDLARS TECHNICAL BULLETIN
of the
Library Component of the Biomedical Communications Network

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The LIBRARY NETWORK/MEDLARS TECHNICAL BULLETIN is issued monthly by the Office of the Associate Director for Library Operations.

MEDLINE DATA BASES

The MEDLINE and COMPFILE data bases were not updated this month. They still contain citations from January 1970 through December 1973 and must be searched with the 1973 MeSH vocabulary. On January 28 SDILINE was updated at NLM and SUNY to include February 1974 citations in addition to the January 1974 citations already there. It must be searched using the new 1974 MeSH vocabulary. To retrieve just February citations you will need to add AND FEB (JC) to your normal search statements. The sizes of the data bases are as follows:

MEDLINE	-	533,035	
COMPFILE	-	351,891	
SDILINE	-	16,387	(January)
		17,014	(February)
		33,401	Total SDILINE

MEDLINE TECHNICAL NOTES

PLEASE QUERY THE NLM/MEDLINE NEWS FILES UNDER TSO DAILY

TSO ERROR MESSAGES

Occasionally when logging into NLM/MEDLINE, or when accessing one of the News Files under TSO, an error message will be received if a typographical error or line noise occurs. If this happens, the procedures indicated below should alleviate the problem. If you encounter a message which is not listed below, please notify MEDLARS Management Section, including information on how you got that particular error message. Any error message followed by the READY cue will allow the user to reenter the entire command, e.g. LIST 'NEWS' or ELHILL.

IKJ56710I INVALID USERID, MEDXYZØ1
IKJ56703A REENTER-

This message indicates that an invalid MEDLINE ID has been received by the computer. The user should reenter only the last five digits of his ID,e.g.,

XYZØ1

INVALID DATA SET NAME, NEWWS"
REENTER-

This message indicates that an invalid News File has been requested. The user should reenter in single quotes the News File name, e.g., 'NEWS'.

REPORTING SYSTEM MALFUNCTIONS

We greatly appreciate the time and trouble taken by many MEDLINE analysts to report system malfunctions. These reports have helped our computer systems analysts to diagnose and correct many computer problems. In the future, if you are informing us of a problem on-line or by letter, please be sure to include the four following pieces of information in addition to a general description of the problem: 1) the date on which trouble was experienced; 2) the exact time-of-day when the problem occurred; 3) the computer (NLM or SUNY) on which the malfunction took place, and 4) your user ID code.

TECHNICAL BULLETIN ARTICLES

With over 200 institutions now participating in the MEDLINE network, we would hope that many of you have developed searching techniques and/or operating policies which might prove interesting and helpful to others. We strongly encourage you to use the Technical Bulletin as a means of conveying your experiences to the network at large. All articles should be submitted to Mrs. Grace McCarn, MEDLARS Management Section, NLM.

TWX CHATTER

Occasionally MEDLINE users with TWX terminals experience a phenomenon called "chatter" or "thumping" of the print head. If and when this problem occurs, the following procedure will correct it:

```
SS 2/c?
USER:
"QUIT"
READY
TERMINAL BREAK  (Type these two words without
READY           quotes after the first READY cue)
ELHILL
SS 2/c?
USER:
```

DIRECT DIAL LINE

A new direct-dial 30-characters-per-second line is now available for MEDLINE users. The number is: 301/654-2687.

"NEWS" COMMAND, NLM/MEDLINE

The "NEWS" command within all files on the NLM system may now be used to retrieve the general notices which also appear in the LIST 'NEWS' file under TSO. All other News Files, e.g., LIST 'PHONES', LIST 'ACCESS', etc., must be accessed through TSO.

Command Format: "NEWS"

NEW MEDLINE FILE CONFIGURATION

Joseph Leiter, Ph.D.
Associate Director, Library Operations, NLM

Last Fall, when it appeared that it would be possible to implement the ELHILL 3 programs discussed in the December 1973 issue (pages 10-18) of the Technical Bulletin by late January, it did not seem practical to expend a large amount of computer time to regenerate the entire MEDLINE file under ELHILL 2 for a period of a month and then regenerate a second time for ELHILL 3. Although double searching would be required under this plan, this would have been necessary for only a short period of time.

Several things have occurred which have made it necessary to modify this approach. Although we will be doing some file regeneration, it will be less extensive than before. The factors which motivated these changes include:

1. A delay in the scheduled implementation of MEDLARS II until late Spring.

2. The present necessity to search SDILINE routinely in order to retrieve current citations. Our MEDLINE usage data shows that many searchers have been missing the most current literature because they have neglected to duplicate their searches in SDILINE.

3. Search analyst and connect time will be saved since MEDLINE, COMPFILE, and SDILINE citations can be retrieved in one search.

4. The new MEDLINE files described below will approximate the file configuration under MEDLARS II and thus will serve as a transition from MEDLARS I to MEDLARS II.

In order to minimize the need for on-line storage and for file maintenance under MEDLARS II, the MEDLINE file, i.e. the current on-line data base, will be restructured to include all MEDLARS citations for a two-year period plus the current year (instead of 3 years of 1000 journals plus the current year). The amount of on-line data will remain about the same, but the entire MEDLARS data base will be covered in one file, eliminating the need for an off-line COMPFILE search for the remainder of the current citations.

Since 60-70 percent of searches are on-line without off-line prints, the preponderance of searches will be satisfied with this 2-3 year file. For those requesting off-line prints and requiring a longer period of coverage, the files described below containing citations for 1970-71 will be regularly available for off-line searches. These latter files will be under 1973 MeSH control in order to avoid a time-consuming file regeneration. When ELHILL 3 becomes operational, all files will be regenerated and all will be under 1974 MeSH control. In addition, other files back to 1966 will be available on regular occasions for off-line search and print under MEDLARS II.

Thus, on February 25, the three present citation files (MEDLINE, SDILINE and COMPFILE) will be restructured into four files to be called: MEDLINE,

SDILINE, MEDFILE and COMPFILE. All of these new files will be searched using ELHILL 2 except for a modification of date searching in MEDFILE and COMPFILE described below. However, the 1973 and 1974 editions of Medical Subject Headings (MeSH) will both be needed since MEDLINE and SDILINE will be searched with the 1974 MeSH, and MEDFILE and COMPFILE will be searched with the 1973 MeSH. And, although two of the four new files will be searched with 1974 MeSH vocabulary, all four will display 1973 MeSH terms with the commands "TREE" and "MESHNO".

The following is a detailed description of each of the four new files:

MEDLINE (Available at NLM and at SUNY)

The new MEDLINE will consist of all MEDLARS citations, including those from Special List journals (e.g. the present MEDLINE plus COMPFILE), from the January 1972 Index Medicus through the current month. This file must be searched using the 1974 MeSH vocabulary. Login to the system will automatically place the user within this file.

SDILINE (Available at NLM and at SUNY)

As in the past, SDILINE will contain all MEDLARS citations for the current Index Medicus month. Thus, it will not be necessary to continue to specify the month to be searched, e.g. and FEB (JC), as was done for the February SDILINE citations. This file will be accessed after login to MEDLINE with the command "FILE SDILINE" and must be searched with 1974 MeSH vocabulary.

MEDFILE (Available at NLM only)

This new file will contain the equivalent of the present MEDLINE citations from January 1970 through December 1973. In order to avoid the retrieval of duplicate citations caused by the overlap of two years of coverage (1972 and 1973), it will be necessary to always restrict your searches by date. The file will be accessed with the command "FILE MEDFILE" and searched with 1973 MeSH vocabulary. Citations retrieved must be printed off-line as in the present COMPFILE.

COMPFILE (Available at NLM only)

This file will contain the equivalent of the present COMPFILE citations from January 1970 through December 1973, thus complementing MEDFILE. As in MEDFILE, it will be necessary to always restrict your searches by date to avoid duplicating citations already retrieved in MEDLINE. COMPFILE will be accessed with the command "FILE COMPFILE" and searched with 1973 MeSH vocabulary. Citations retrieved must be printed off-line.

Date Searching

In order to avoid the retrieval of duplicate citations caused by the overlap of years of coverage between MEDLINE (1972-74) and MEDFILE/COMPFILE (1970-73), date searching has been slightly altered in MEDFILE and COMPFILE. Date searching will not be altered in MEDLINE or SDILINE.

At present, the search 70 THRU 71 will retrieve citations in which the element Publication Year (PY) falls within these dates. After February 28, this same search in MEDFILE and COMPFILE will retrieve citations which were printed in Index Medicus within those dates. The actual years of publication will not necessarily fall within the same range. However, the unit record in MEDFILE and COMPFILE will still contain the element Publication Year (PY). This field can be string searched.

PLEASE BE SURE TO USE DATE SLAPCHING WITH MEDFILE/COMPFILE.

The following schedule shows when and where each of the four new files will be available.

Effective February 25, 1974

	9 a.m.-5 p.m. MONDAY	12 noon-10 p.m. TUESDAY	9 a.m.-5 p.m. WEDNESDAY	9 a.m.-5 p.m. THURSDAY	9 a.m.-5 p.m.
NLM	MEDLINE 72-74	MEDLINE 72-74	MEDLINE 72-74	MEDLINE 72-74	MEDLINE 72-74
	SDILINE	SDILINE	SDILINE	SDILINE	SDILINE
	CATLINE	CATLINE	CATLINE	CATLINE	CATLINE
	SERLINE	SERLINE	SERLINE	SERLINE	SERLINE
	MEDFILE 70-73	COMPFILE 70-73	MEDFILE 70-73	COMPFILE 70-73	MEDFILE 70-73

	9 a.m.-7 p.m.	9 a.m.-5 p.m.	9 a.m.-7 p.m.	9 a.m.-10 p.m.	9 a.m.-5 p.m.
SUNY	MEDLINE 72-74	MEDLINE 72-74	MEDLINE 72-74	MEDLINE 72-74	MEDLINE 72-74
	SDILINE	SDILINE	SDILINE	SDILINE	SDILINE

NOTE: All times are in Eastern Daylight Time.

We regret that limited on-line storage space makes it impossible for us to mount MEDFILE and COMPFILE for access on the same days.

"PRINT" OR "PRINT HITS"

Gail Yokote
Information Services
Pacific Southwest Regional Medical Library Service

When a MEDLINE searcher types the command "PRINT", citations are printed out in publication year order and by entry date within publication year; that is, the most recently published articles appear first. However, the "PRINT HITS" command described on page 35 of the 1974 MEDLINE Reference Manual is a way of arranging the print-out of a MEDLINE, SDILINE, or COMPILE search so that the most relevant articles appear first. The command is particularly useful when one has several terms in one facet of the search and a retrieval of more than 25 citations. With "PRINT HITS" the citations are printed out so that those citations having the greatest number of MeSH terms matching the search request are printed first, while those citations having the least number of "HITS" are printed last.

In the following example, the search request is for articles on the psychological effects of coronary care units on patients.

Facet A	Facet B
coronary care units	anxiety exp. F1.32 (defense mechanisms)
intensive care units	attitude exp. F1.41 (emotions)
	body image
	counseling
	mental health
	exp. F1.83 (personality)
	morale

After entering the search formulation and retrieving 43 citations, the following is an example of some of the titles using "PRINT" and "PRINT HITS". The Main Headings which match those in either facet of the search request have been marked with a check (✓).

```
ss 9/c?
USER:
"PRINT TI"
PROG:
TI-  BECOMING A CCU NURSE.
TI-  CONVERSION OF MASSIVE ANXIETY INTO HEART ATTACK.  THE PARACONSCIOUS
     AND FREUD'S CARDIAC CRISIS
TI-  ILLNESS AS A SUBJECTIVE EXPERIENCE
TI-  PSYCHOLOGICAL MANAGEMENT OF THE CCU PATIENT
TI-  TREATMENT OF THERMAL INJURIES

ss 10/c?
USER:
"PRINT 1 TI, MH"
PROG:
TI-  BECOMING A CCU NURSE.
```

✓MH- ATTITUDE
✓MH- *CORONARY CARE UNITS
MH- *INSERVICE TRAINING
MH- INTERPROFESSIONAL RELATIONS
MH- NURSE-PATIENT RELATIONS
MH- NURSING CARE/STANDARDS
MH- *NURSING, TEAM

ss 10/c?
USER:
"PRINT HITS 43"
PROG:
TI- CONVERSION OF MASSIVE ANXIETY INTO HEART ATTACK. THE PARACONSCIOUS AND FREUD'S CARDIAC CRISIS
TI- THE HOSPITAL ENVIRONMENT: ITS IMPACT ON THE PATIENT
TI- A PSYCHIATRIC STUDY OF A PEDIATRIC INTENSIVE THERAPY UNIT. A CHILD PSYCHIATRIST LOOKS AT THE EMOTIONAL RESPONSES OF CHILDREN AND STAFF IN THIS TREATMENT SETTING
TI- DENIAL AS A DETERMINANT OF ANXIETY AND PERCEIVED HEALTH STATUS IN THE CORONARY CARE UNIT
TI- A PSYCHODYNAMIC EVALUATION OF PATIENTS WITH MYOCARDIAL INFARCTION WITH REGARD TO THEIR FUTURE OCCUPATIONAL AND SOCIAL ADJUSTMENT
. .
. .
. .
TI- BECOMING A CCU NURSE (This is the 32nd citation retrieved)

ss 10/c?
USER:
"PRINT HITS 1 TI, MH"
PROG:
TI- CONVERSION OF MASSIVE ANXIETY INTO HEART ATTACK. THE PARACONSCIOUS AND FREUD'S CARDIAC CRISIS
✓MH- *ANXIETY
MH- CIRCADIAN RHYTHM
MH- CONSCIOUSNESS
✓MH- CORONARY CARE UNITS
MH- DREAMS
✓MH- EGO
MH- FRONTAL LOBE
MH- HUMAN
✓MH- ID
MH- MALE
MH- MIDDLE AGE
MH- *MYOCARDIAL INFARCT/ETIOLOGY
MH- *SHOCK
✓MH- STRESS
MH- TRIGLYCERIDES/BLOOD

After comparing the print-outs of the two types of print commands, one notes that the first article retrieved with "PRINT HITS" has a greater number of MeSH terms matching the search request (five terms from facets

A and B) than the first article retrieved with the simple "PRINT" command (two terms from facets A and B). Also, since the first article retrieved with "PRINT" appears as the 32nd title when using the "PRINT HITS" command, it is clear that a searcher looking only at the first five or so citations from the "PRINT" command could have missed as many as 31 citations with a larger number of MeSH terms matching the two facets of his search request.

MESH ERRATA LISTS FOR 1974

Alphabetic MeSH 1974 (Searchers and Indexers Copy)

Page	
97	Change BUNGARATOXINS to BUNGAROTOXINS
120	Change CETYLPYRIDIUM to CETYLPYRIDINIUM
318	Change Hydatid Cyst see ECCHINOCOCCOSIS to Hydatid Cyst see ECHINOCOCCOSIS
	Change Nydatidosis see ECCHINOCOCCOSIS to Hydatidosis see ECHINOCOCCOSIS

MeSH Tree Structures 1974

Page	
D5-4 D12-2	Change BUNGARATOXINS to BUNGAROTOXINS
D2-13 D3-4 D13-5	Change CETYLPYRIDIUM to CETYLPYRIDINIUM

NEW MESH TOOL

A new vocabulary tool, New Main Headings and Provisionals with Scope Notes - 1974, is now available from the National Technical Information Service, 5285 Port Royal Road, Springfield, Virginia 22151. The cost is $5.75. When ordering, please include the following number: PB 226-906/AS.

SOME CHARACTERISTICS AND CONVENTIONS OF THE IBM 2741

P.E. Pothier
MEDLARS Management Section, NLM

The IBM 2741 and similar terminals (NOVAR, DATEL, DUBA, ANDERSON-JACOBS 841, etc.) have certain operating characteristics peculiar to them, such as procedures for interrupting output and correcting errors, which will be described in this article.

Most of the terminals used in the network transmit in the ASCII (American Standard Code for Information Interchange) code. The 2741 transmits in one of three codes: BCD (Binary Coded Decimal), EBCDIC (Expanded Binary Coded Decimal), and Correspondence. Which code is transmitted by a particular 2741 terminal can be determined from the character in the upper case position on the key for the numeral 2:

BCD	° (degree sign)
EBCDIC	< (less than sign)
Correspondence	@ (at sign)

BCD coded terminals cannot access MEDLINE, MEDLEARN or Tymshare and therefore will not be discussed here. Correspondence and EBCDIC terminals have different codes for error correction and interrupt. These characteristics will be discussed with reference to MEDLINE accessed via Tymshare, MEDLINE accessed by direct dial to NLM, and MEDLEARN. We will also list the Tymshare access numbers for EBCDIC and Correspondence codes. All Tymshare nodes can accept input from ASCII coded terminals, but EBCDIC and Correspondence terminals must go through EBCDIC and Correspondence nodes respectively.

MEDLINE VIA THE TYMSHARE NETWORK

Single character delete.

	EBCDIC Terminals	Correspondence Terminals
1.	ç (upper case @)	$\pm$ (upper case 1)
2.	/ or ? or .	/ or ? or .

Both the EBCDIC terminals and the Correspondence terminals require two steps to delete a character. Only the first step is different: on the EBCDIC terminals one depresses the ç key (upper case @ sign); on the Correspondence terminals one depresses the $\pm$ key (upper case numeral 1). The second step on both types of terminal is to depress either the slash (/) or the question mark (upper case slash) or the period.

The dollar sign ($) followed by a carriage return deletes an entire line on either type of terminal.

TSO NEWS FILES VIA THE TYMSHARE NETWORK

When one accesses the TSO News Files (at NLM only) via the Tymshare Network, one may delete a single character by depressing the underscore key (upper case hyphen) on either type of terminal.

MEDLEARN

The single character delete and the line delete procedures are identical to those used when accessing MEDLINE via Tymshare.*

Interrupting the Computer.

MEDLEARN, unlike MEDLINE, allows the user to interrupt the computer both while it is printing and while it is waiting for a user response. However, the procedure described in the MEDLEARN Manual works only on ASCII coded terminals. On EBCDIC and Correspondence coded terminals, the user must depress six keys sequentially to interrupt the computer while it is printing.

	EBCDIC Terminals	Correspondence Terminals
1.	ATTN	ATTN
2.	¢ (upper case @ sign)	± (upper case 1)
3.	c	c
4.	¢	±
5.	c	c
6.	carriage return	carriage return

The program will respond with a period (.), and the user may enter RUN W2 as described in the MEDLEARN Manual.

If the computer is not printing, and the user wishes to interrupt the program and go to another location, he must depress only three keys sequentially.

	EBCDIC Terminals	Correspondence Terminals
1.	¢	±
2.	c	c
3.	carriage return	carriage return

MEDLINE DIRECT DIAL

When dialing direct to MEDLINE (i.e. not via Tymshare or WATS), the user may delete a single character by depressing the backspace key. A whole line of characters may be deleted by entering a dollar sign and a carriage return. The procedures are the same for EBCDIC and Correspondence coded terminals. Note that it is now possible for users with Correspondence terminals to dial directly into MEDLINE.

---

*NOTE: MEDLEARN must be accessed through Tymshare.

TSO NEWS FILES DIRECT DIAL

When accessing the TSO News Files by direct dial, one may delete a single character by depressing the backspace key. One may also interrupt the computer while it is printing by hitting the attention (ATTN) key. These procedures are identical on both types of terminal.

EBCDIC AND CORRESPONDENCE TYMSHARE ACCESS NUMBERS

EBCDIC Nodes

Brussels, Belgium	40-0215	Chicago, Illinois	312-346-4961
Los Angeles, California	213-683-0451	Union, New Jersey	201-964-3801
Mountain View, California	415-965-3600	Wayne, New Jersey	201-785-4777
Newport Beach, California	714-540-9560	Buffalo, New York	716-856-1400
Sacramento, California	916-441-5450	New York, New York	212-750-9433
San Jose, California	408-255-3050	Syracuse, New York	315-437-7111
Denver, Colorado	303-321-1105	Houston, Texas	713-785-4420
Washington, D.C.	703-521-6520	Midland, Texas	915-563-1446
Paris, France	602-7030	San Antonio, Texas	512-222-9573

Correspondence Nodes

Phoenix, AZ	602-279-3201	Baton Rouge, LA	504-927-6400
Cupertino, CA	408-996-2200	New Orleans, LA	504-834-7100
Inglewood, CA	213-649-0830	Baltimore, MD	301-547-8100
Inglewood, CA	213-649-0846	Boston, MA	617-964-2000
Los Angeles, CA	213-687-9900	Detroit, MI	313-522-6380
Oakland, CA	415-465-7000	Minneapolis, MN	612-854-6659
Oxnard, CA	805-487-0482	St. Louis, MO	314-968-5140
Palo Alto, CA	415-329-1800	Englewood Cliffs,NJ	201-894-8250
Riverside, CA	714-825-9372	New York, NY	212-551-9322
San Diego, CA	714-291-8700	Rochester, NY	716-546-1410
San Francisco, CA	415-391-9325	Oklahoma City, OK	405-947-0561
San Jose, CA	408-255-3210	Portland, OR	503-224-0750
San Jose, CA	408-257-9050	Harrisburg, PA	717-652-5171
Darien, CT	203-655-8931	Philadelphia, PA	215-835-2700
Hartford, CT	203-568-2610	Pittsburgh, PA	412-391-4808
Washington, DC	703-521-6550	Dallas, TX	214-638-5800
London, England	01568-4455	Houston, TX	713-785-4411
St. Petersburg, FL	813-536-7823	Midland, TX	915-563-1436
Tampa, FL	813-229-1102	San Antonio, TX	512-222-9571
Paris, France	602-5500	San Antonio, TX	512-349-3861
Atlanta, GA	404-875-7961	Seattle, WA	206-622-7930
Southbend, IN	313-427-8850	Milwaukee, WI	414-257-3482

NOTE: The actual numbers at these nodes are subject to change. For the latest list of Tymshare numbers, list 'PHONES'.

WATS LINES AND THE 2741

Since all of the WATS lines go into Correspondence Tymsats, only 2741 users with Correspondence coded terminals can access MEDLINE via WATS lines.

We are currently investigating methods of achieving "transparency" between our computer and the EBCDIC and Correspondence codes, so that in the future it will no longer be necessary for users to observe different conventions for ASCII, EBCDIC, and Correspondence coded terminals.

KEY TO THE INDEXING OF ENZYMES AVAILABLE

Stanley Jablonski
Head, Index Section, NLM

The supplement to the MEDLARS INDEXING MANUAL entitled "Indexing of Enzymes" is now available. It includes a "Key to the Indexing of Enzymes" based on the recently published ENZYME NOMENCLATURE 1972 (American Elsevier Publishing Company, Inc.) prepared by the International Union of Pure and Applied Chemistry and the International Union of Biochemistry.

Copies of this supplement are available from MEDLARS Management Section, Room 152, NLM, without charge. We shall be able to fill orders only for those requests enclosing a self-addressed label. If you do not receive your requested copy, you will assume we did not receive your enclosed label.

RML-FUNDED INTERLIBRARY LOAN ACTIVITY

Dan Tonkery
Network Management, NLM

The table on the following page presents summary figures on reimbursable inter-library loans provided by the Regional Medical Libraries during fiscal years 1972 and 1973. Figures are given for each of the eleven RML's.

ILL traffic for the National Library of Medicine is divided into two parts: 1) NLM loans to the Mid-Atlantic Region, under "MAR" and 2) NLM loans as a backup to the RML's and to foreign requestors, under "NLM".

The figures represent only ILL's funded by NLM and thus should not be interpreted as the total ILL traffic in these libraries or in any region. Also, please note that the "Network Operating Standard" or expected ILL throughput rate was changed from three working days in fiscal year 1972 to four calendar days in fiscal year 1973. This should give a more accurate picture of the speed with which loans were filled.

INDIVIDUAL RML-FUNDED ILL ACTIVITY

SUMMARY OF FISCAL YEAR 1972 AND 1973

	NLM	HARV	NYAM	COP	MAR	WAYNE	EMORY	CRERAR	NEB	DALLAS	SEATTLE	UCLA
TOTAL REQUESTS RECEIVED												
FY 72	93,[illegible]71	47,661	73,395	47,096	57,238	79,029	43,487	22,113	24,053	32,55[illegible]	[illegible],[illegible]54	51,905
[illegible]	[illegible],589	44,323	83,033	49,828	62,658	67,396	55,362	32,220	34,[illegible]70	48,99[illegible]	36,1[illegible]	62,140
TOTAL REQUESTS ACCEPTED												
FY [illegible]	[illegible]	46,113	[illegible]	46,006	54,253	NA	42,217	22,019	23,[illegible]46	[illegible]2,51[illegible]	29,[illegible]6	51,225
FY [illegible]	[illegible]	42,607	8[illegible],[illegible]97	49,104	58,882	66,941	52,939	31,[illegible]45	33,740	[illegible] 872	35,305	61,523
TOTAL REQUESTS FILLED												
FY [illegible]	[illegible]	[illegible],606	5[illegible],[illegible]16	38,1[illegible]	45,57[illegible]	46,966	34,187	14,65[illegible]	20,[illegible]31	[illegible]	25 [illegible]	39,662
FY [illegible]	[illegible]3,462	34,556	63,260	40,0[illegible]	[illegible]5,928	52,428	43,296	19,318	[illegible],043	[illegible]	30,189	46,879
% FILLED WITHIN [illegible] DAYS												
FY [illegible]	84%	94%	97%	99.5%	[illegible]6%	NA	95%	84.5%	9[illegible]	98[illegible]	65%	97%
% FILLED WITHIN 4 CALENDAR DAYS												
FY [illegible]	[illegible]	85%	98.7%	98.43%	80%	95.9%	88%	[illegible]	8[illegible]3%	9[illegible].4%	[illegible]5.3%	94%

NLM CATALOGING TOOLS ERRATA

Emilie V. Wiggins
Head, Cataloging Section, NLM

Issue Number 13 (November 1973) of Notes for Medical Catalogers has the following errors:

Page 66 -- 7th line from bottom, after p.85 correct (WD 200) to read (WD 205).
Page 67 -- 2nd line from top, correct the number 700 to read 703.
Page 69 -- 9th line from top, correct WG 104 to read WT 104.
Page 70 -- 5th line from top, correct p. 252 to read p. 257.

Also, this will be the last issue of Notes for Medical Catalogers to appear in the present format. Future issues will appear annually and should be ordered from the National Technical Information Service. It is anticipated that the first issue to be published by NTIS will be ready in November 1974. There will be a small charge. Brief interim notes will appear as the need arises in the Library Network/MEDLARS Technical Bulletin.

The 1974 edition of Medical Subject Headings (black and white version) has the following errors in the section "Application of Medical Subject Headings in Book Cataloging":

Page X -- add to the list of form subheadings:
abbreviations
correspondence
pictorial works
portraits

Page X -- correct these form headings:
biobibliography (bio.-bibl.) should read biobibliography (bio-bibl.)
popular words should read popular works
programmed instruction should read programmed texts
video tapes should read videotapes

Page XI -- In narrative at the bottom of the page, correct "legislation" in line 5 to read "mortality". "Legislation" in line 7 is correct.

Some of these corrections may seem trivial, but they are very important when searching in CATLINE.

TECHNICAL BULLETIN INDEX. ERRATUM

The entry MEDLINE Bibliography under PUBLICATIONS in the 1973 Index to the Technical Bulletin was erroneously listed as 52-4. The Bibliography is actually on Page 5 of Issue Number 45.

MEDLINE STATISTICS -- DECEMBER 1973

The statistical reporting period runs from the first to the last day of each month. The statistics are a total of the usage of all MEDLINE files (MEDLINE, SDILINE, COMPFILE, CATLINE and SERLINE) both at NLM and at SUNY. If your statistics differ greatly from these, please notify MEDLARS Management Section.

These statistics will no longer be published monthly in this detailed format. Instead they will be summarized by Region quarterly in the April, July, October and January issues of the Technical Bulletin. Institutions wishing to see their detailed statistics should contact their Regional Medical Library.

MEDLINE CENTER	TOTAL SEARCHES @ SYN	TOTAL OFF-LINE PRINTS	TOTAL PAGES	TOTAL HOURS	AVERAGE MIN. PER SEARCH
* RG: 1					
BOSTON U SCH MED..MED LIB	76	20	304	10.2	8.1
BROWN U..SCI LIB	13	0	0	3	16.2
DARTMOUTH COL..DANA BIOMED LIB	69	23	266	7.6	6.6
HARVARD U..F COUNTWAY LIB	63	39	1044	18.9	18.0
MAINE MED CTR	42	1	5	7.8	11.1
MASS GEN HOSP..TREADWELL LIB	38	6	36	10.9	17.
MASS INST OF TECHNOLOGY	18	9	112	11.6	38.7
TUFTS U..MED DENT LIB	323	35	275	31.4	5.8
U CONN..L M STOWE LIB	281	36	479	42.0	9.0
U MASS..MED SCH LIB	27	4	32	5.4	12.0
U VERMONT..DANA MED LIB	64	7	79	8.0	7.5
YALE U..MED LIB	122	27	179	25.6	12.6
* TOTAL FOR RG: 1	1136	207	2811	182.9	
* RG: 2					
ALBANY MED COL	0	0	0	.0	.0
ALBERT EINSTEIN COL MED..LIB	9	1	16	6.3	42.0
COL MED DENT NJ..LIB	58	9	68	10.4	10.8
COLUMBIA U..MED LIB	93	40	455	20.9	13.5
CORNELL U MED COLL..LIB	3	0	0	.3	6.0
ELLIS HOSP..LIB	29	0	0	5.2	10.8
MED RES LIB BROOKLYN	72	4	28	7.9	6.6
NEW YORK MED COL...WESTCHESTER MED	33	0	0	5.1	9.3
NY ACAD MED..NY NO NJ RML	36	15	208	7.3	12.2
RUTGERS U	76	22	275	19.9	15.7
SLOAN-KETTERING CANCER CTR	42	21	156	5.6	8.0
SUNY ALBANY..CENT OFF COMPUTER CTR	0	0	0	.0	.0
SUNY BUFFALO	8	0	0	5.8	43.
SUNY STONY BROOK	0	0	0	.0	.0
UNIV OF ST OF NY..THE NY ST LIB	37	0	0	4.6	7.5
* TOTAL FOR RG: 2	496	112	1206	99.3	

MEDLINE CENTER	TOTAL SEARCHES @ SYM	TOTAL OFF-LINE PRINTS	TOTAL PAGES	TOTAL HOURS	AVERAGE MIN. PER SEARCH
* RG: 3					
COL PHYSICIANS PHILA..LIB	39	23	271	10.3	15.8
HAHNEMANN MED COL..LIB	13	8	49	3.8	17.5
JEFFERSON MED COL..LIB	44	3	78	7.0	9.5
MED COL PA	15	6	100	3.9	14.6
PENNA STATE U..HERSHEY MED CTR LIB	57	8	88	9.6	10.1
TEMPLE U..HEALTH SCI CTR LIB	33	26	361	10.1	18.4
U PNNN..SCH MED LIB	34	14	135	11.0	19.4
U PITTSBURGH..FALK LIB	30	16	96	10.0	20.0
V A HOSP ERIE PA..LIB	36	0	0	4.4	7.3
* TOTAL FOR RG: 3	302	104	1178	70.1	
* RG: 4					
ANDREWS AFB,MALCOLM GROW USAF MED C	0	0	0	.0	.0
BOW:AN GRAY SCH MED..LIB	82	26	385	11.8	8.6
BUR NARC DANG DRUGS..DRUG CTRL DIV	6	1	18	.7	7.0
CHARLESTON AREA MED CTR	38	1	4	7.1	11.2
CHILDRENS HOSP.NATL.MED CTR	1	0	0	.7	42.0
D C GEN HOSP..LIB	38	4	23	7.9	12.5
DUKE U SCH MED..MED CTR LIB	71	14	143	10.9	9.2
EASTERN VIRGINIA MED SCH	33	10	70	4.1	7.5
FAIRFAX HOSP	31	2	19	3.2	6.2
FED AMER SOC EXP BIOL..OFF BIOL HAN	6	0	0	.8	8.0
FOOD & DRUG ADM ROCKVILLE..ADP SYST	22	14	72	9.7	26.5
GEORGE WASHINGTON U HOSP..HOSP BR L	198	22	163	33.9	10.3
GEORGETOWN U MED CTR..DAHLGREN MEM	321	50	492	35.3	6.6
HEALTH SERV MENT HLTH ADM..LIB	29	21	185	7.8	16.1
HOWARD U..MED DENT LIB	16	3	11	3.0	11.2
JOHNS HOPKINS U..WELCH MED LIB	36	4	140	12.9	21.5
JOINT MED LIB USA USAF..OFF SURG GE	37	7	100	6.1	9.9
LIB CONGRESS..CONGRESS REF SERV	0	0	0	.0	.0
MED CHIR FAC MARYLAND..LIB	171	4	41	15.2	5.3
NATL AGRICULTURAL LIBRARY	37	2	21	6.8	11.0
NATL INST ENVIRON HEALTH SCI	20	2	15	5.5	16.5
NATL LIB MED..MARML RM 152	177	93	1094	47.6	16.1
NATL LIB MED..RSD	244	55	530	68.3	16.8
NATL NAVAL MED CTR..STITT LIB & RES	109	10	95	18.2	10.0
NIH...DIV OF COMPUTER RES AND TECH	3	17	80	5.1	102.0
NIH..DRG	1	0	0	.9	54.0
NIH..LIB	376	190	2542	56.0	8.9
NIH..NATL CANCER INST	46	33	752	14.8	19.3
NIH..NATL HEART INST	17	1	10	5.8	20.5
NIH..NIAMD	31	6	72	8.4	16.3
NIH..NIMH LIB	3	6	91	.6	12.0
PHARMACEUTICAL MFR ASSN	35	5	22	6.8	11.7

MEDLINE CENTER	TOTAL SEARCHES @ SYM	TOTAL OFF-LINE PRINTS	TOTAL PAGES	TOTAL HOURS	AVERAGE MIN. PER SEARCH
ST ELIZ HOSP SMR..NIMH LIB	64	5	52	10.2	9.C
ST ELIZ HOSP..PROF LIB	3	C	0	.7	14.0
U MARYLAND BALTIMORE.. H SCI LI	231	38	393	44.0	11.4
U NC..HEALTH SCI LIB	116	30	334	16.5	8.5
U S CPVT	7	4	59	1.3	11.1
U VA. MED SCH LIB	100	17	157	21.5	12.9
V A CIRL OF 810 VERMONT AVE NW DC	47	18	133	10.3	13.1
V A HOSP DC..LIB	55	8	97	8.3	9.1
VA COMMONWEALTH UNIV...MED COL OF V	1	0	0	5.0	18.7
WALTER REED ARMY MED CTR..GEN HOSP	50	4	24	30.0	36.0
WASHINGTON HOSPITAL CTR..MED LIB	53	2	9	6.5	7.4
WVA MED CTR LIB	53	2	22	11.1	12.6
* TOTAL FOR RG: 4	3030	729	8470	581.3	
* RG: 5					
CASE WEST RES U..CLEVELAND HEALTH S	54	9	121	11.8	13.1
CHEMICAL ABSTRACTS SERVICE	0	0	0	.0	.0
ENVIRONMENT PROTECT AG CINCINNATI	94	53	916	15.4	9.8
HARPER HOSP..DEPT LIB	87	0	0	7.4	5.1
HENRY FORD HOSP	41	5	102	7.7	11.3
MED COL OHIO TOLEDO..LIB	91	0	0	10.6	7.0
MICH STATE U..SCI LIB	36	14	146	8.7	14.5
OHIO STATE U COL MED..HEALTH CTR LI	168	23	187	22.5	8.0
SINAI HOSP DETROIT..MED LIB	27	0	0	2.4	5.3
U CINCINNATI..MED CTR LIB	88	25	185	11.8	8.0
U DETROIT..SCH DENT LIB	37	4	25	3.2	5.2
U KY..MED CTR LIB	235	24	273	13.2	3.4
U LOUISVILLE..KORNHAUSER HEALTH SCI	99	14	107	20.4	12.4
U MICH..MED CTR LIB	40	25	330	4.6	6.9
WAYNE STATE U..SHIFFMAN MED LIB	175	36	381	18.7	6.4
WILLIAM BEAUMONT HOSP..MED LIB	42	7	74	5.9	8.4
* TOTAL FOR RG: 5	1314	239	2847	164.3	
* RG: 6					
EMORY U..A W CALHOUN MED LIB	110	30	287	12.4	6.8
JACKSONVILLE HOSP EDU PROG..J L BOR	6	0	0	1.0	10.0
MED COL GA..DIV HEALTH COMM LIB	30	1	26	4.6	9.2
MED)U SC..LIB	140	8	43	15.0	6.4
TOXICOLOGY INF RESPONSE CTR..BIOL D	11	26	956	5.3	28.9
U ALA..LISTER HILL CTR HEALTH SCI	70	25	747	15.0	12.9
U FLA..J H MILLER HEALTH CTR LIB	75	19	296	8.4	6.7
U MIAMI..L CALDER MEM LIB	119	31	339	15.1	7.6
U MISS MED CTR..ROWLAND MED LIB	51	14	169	7.1	8.4

MEDLINE CENTER	TOTAL SEARCHES @ SYM	TOTAL OFF-LINE PRINTS	TOTAL PAGES	TOTAL HOURS	AVERAGE MIN. PER SEARCH
U SOUTH ALABAMA..BIOMED LIB	68	0	0	1.8	1.6
U SOUTH FLORIDA..MED CTR LIB	28	5	28	3.7	7.9
U TENN..MED UNITS LIB	60	28	280	6.8	6.8
V A HOSP DECATUR GA..LIBRARY	98	6	37	14.7	9.0
VANDERBILT U..SCH MED LIB	83	28	229	11.1	8.0
* TOTAL FOR RG: 6	949	221	3437	122.0	
* RG: 7					
ABBOT-NORTHWESTERN HOSP	18	0	0	2.3	7.7
AMER MED ASSOC..ARCHIVE LIB	137	1	22	15.8	6.9
FAIRVIEW COMMUNITY HOSP...HLTH SCI	14	0	0	3.0	12.9
HENNEPIN CTY GEN HOSP AND METROPOLI	6	1	7	1.5	15.0
IND U..SCH MED LIB	44	1	8	5.	7.2
JOHN CRERAR LIB	86	31	309	22.2	15.5
LUTHERAN GEN HOSP..LIB	27	1	4	4.7	10.4
MAYO FOUND..MAYO CLINIC LIB	85	11	138	13.1	9.2
MED COL WIS..MED DENT LIB	61	15	141	10.2	10.0
NORTHWESTERN U..MED & DENT SCH LIB	24	4	61	2.7	6.7
SOUTHERN ILL U..SCH MED LIB	18	1	12	4.2	14.0
U CHICAGO..BILLINGS HOSP LIB	100	12	100	26.3	15.8
U ILL MED CTR..LIB HEALTH SCI	33	11	168	8.9	16.2
U ILL..ROCKFORD SCH MED LIB	17	4	34	2.9	10.2
U IOWA..MED LIB	123	53	407	23.3	11.4
U MINN..BIOMED LIB	51	3	73	10.8	12.7
U WISC..MIDDLETON MED LIB	159	45	476	33.6	12.7
UNIV OF MINNESOTA,DULUTH..HLTH SCI	14	3	30	2.6	11.1
V A HOSP WOOD WISC	56	10	104	10.9	11.7
* TOTAL FOR RG: 7	1073	207	2094	204.1	
* RG: 8					
CREIGHTON U..HEALTH SCI LIB	55	12	132	6.6	7.2
FITZSIMONS GEN HSP..MED-TEC LIB	37	15	215	8.0	13.0
ST LUKES HOSPITAL..LIB	122	0	0	13.5	6.6
ST.LOUIS UNIV...MED CTR LIB	0	0	0	.0	.0
U COLO..DENISON MEM LIB	365	52	536	28.5	4.7
U KANS..CLENDENING MED LIB	75	12	115	11.6	9.3
U MO COLUMBIA..MED LIB	72	18	104	11.6	9.7
U MO KANSAS CITY..SCH MED LIB	226	8	88	25.0	6.6
U NEBR..MIDCONTINENTAL RML PROG	101	41	492	18.0	10.7
U UTAH..ECCLES MED SCI LIB	51	30	275	12.5	14.7
V A HOSP LINCOLN NB..LIB	18	0	0	3.1	10.3
WASHINGTON U..SCH MED LIB	129	36	378	13.9	6.5
* TOTAL FOR RG: 8	1251	224	2335	152.3	

MEDLINE CENTER	TOTAL SEARCHES @ SYM	TOTAL OFF-LINE PRINTS	TOTAL PAGES	TOTAL HOURS	AVERAGE MIN. PER SEARCH
* RG: 9					
BROOKE GEN HOSP..MED LIB	11	0	0	1.9	10.4
FOOD & DRUG ADM..NATL CTR TOX RES	31	5	181	9.5	18.4
HOUSTON ACAD MED..TEX MED CTR LIB	528	96	1201	32.7	3.7
LOUISIANA STATE U NEW ORLEANS..LIB	46	26	301	11.8	15.4
LOUISIANA STATE U..SCH MED LIB	12	2	23	2.0	10.0
LOVELACE FDN FOR MED ED AND RES	25	10	82	4.8	11.5
SPARKS REG MED CTR..HEALTH SCI LIB	15	4	29	1.6	6.4
TEXAS MED ASSN..LIB	104	0	0	7.1	4.1
TEXAS TECH UNIV SCH OF MED	28	10	127	5.2	11.1
TULANE U..SCH MED LIB	45	27	296	9.4	12.5
[illegible] MED CTR LIB	0	0	0	.0	.0
[illegible]..LIB MED SCI	75	20	394	14.7	11.8
U OKLA..HEALTH SCI CTR LIB	120	24	212	16.2	8.1
U TEXAS DALLAS..MED SCH LIB	110	54	518	22.0	12.0
U TEXAS MED BR GALVESTON..MOODY MED	162	11	156	23.9	8.9
U TEXAS SAN ANTONIO..MED SCH LIB	41	8	128	7.1	10.4
WILLIAM BEAUMONT ARMY MEDICAL CENTE	0	0	0	.1	.0
* TOTAL FOR RG: 9	1353	277	3648	170.0	
* RG: 10					
ALASKA HEALTH SCI INFO CTR	117	9	94	16.1	8.3
MADIGAN GEN HOSP	23	2	11	2.7	7.0
COLUMBUS HOSP GREAT FALLS MONT..LIB	18	0	0	2.3	7.7
U OREGON..MED SCH LIB	307	1	3	39.1	7.6
SACRED HEART GEN HOSP..MED CTR DR'S	16	1	2	2.6	9.7
V A HOSP BOISE IDAHO..LIB	27	4	28	6.4	14.2
U WASHINGTON..HEALTH SCI LIB	254	84	1287	45.0	10.6
* TOTAL FOR RG: 10	762	101	1425	114.2	
* RG: 11					
CALIF. COLLEGE OF PODIATRIC MEDICIN	56	2	5	14.5	15.5
CEDARS-SINAI MED CTR..HOSP LIB	58	5	39	4.1	4.2
CHILDRENS HOSP L A..MEDICAL LIB	110	39	349	11.3	6.2
DAVID GRANT USAF MED CTR	74	18	164	9.3	7.5
HAWAII MED LIB INC	29	12	158	8.6	17.8
HOAG MEM HSP PRESBYTERIAN..MED LIB	25	0	0	4.2	10.1
KAISER FOUNDATION HOSP	18	7	38	2.1	7.0
L A CO HARBOR GEN HOSP..MED LIB	146	30	166	19.1	7.8
L A COUNTY MED ASSOC..LIB	25	9	83	7.0	16.8
LETTERMAN GEN HOSP..MED LIB	68	15	152	12.4	10.9
LOMA LINDA U..V RADCLIFF MEM LIB	52	13	86	15.7	18.1

MEDLINE CENTER	TOTAL SEARCHES @ SYM	TOTAL OFF-LINE PRINTS	TOTAL PAGES	TOTAL HOURS	AVERAGE MIN. PER SEARCH
MARTIN LUTHER KING JR GEN HOSP..MED	19	8	84	4.7	14.8
MEM HOSP MED CTR LONG BEACH..MED LI	377	75	680	30.1	4.8
MILLS MEM HOSP	0	0	0	.0	.0
MOUNT ZION HSP & MED CTR	23	0	0	2.6	6.8
NASA AMES RES CTR	17	2	55	2.0	7.1
O THOPAEDIC HOSPITAL..RUBEL MEM LIB	0	5	29	2.4	.0
PACIFIC MED CTR & U OF THE PACIFIC	100	4	30	9.1	5.5
RANCHO LOS AMIGOS HOSP..LIB	64	13	124	7.2	6.7
ST.JOSEPH HOSP AND CHILDRENS HOSP..	0	0	0	1.7	.0
STANFORD U MED CTR..LANE MED LIB	162	67	839	25.7	9.5
TRIPLER ARMY MED CTR..MED LIB	17	8	73	5.1	18.0
U ARIZ..MED CTR LIB	42	12	143	10.4	14.9
U CALIF BERKELEY PUB HLTH LIB	53	10	158	17.4	19.7
U CALIF DAVIS..HEALTH SCI LIB	199	35	529	19.9	6.0
U CALIF IRVINE..MED SCI LIB	250	17	192	20.6	4.9
U CALIF L.A...BIOMED LIB PAC SW RML	0	1	7	7.2	.0
U CALIF L.A...BIOMED LIB REF SECT	90	52	620	30.6	20.4
U CALIF S.F...LIB	59	30	394	14.9	15.2
U CALIF SAN DIEGO..BIOMED LIB	232	52	768	25.7	6.6
U HAWAII..HAMILTON LIB	11	17	365	2.7	14.7
U NEV RENO..LIFE HEALTH SCI LIB	49	0	0	3.5	4.3
U SO CALIF SCH MED..NORRIS MED LIB	140	89	1226	33.6	14.4
V A HOSP SEPULVEDA CALIF..MED LIB	44	11	95	7.3	10.0
* TOTAL FOR RG: 11	2609	656	7651	392.7	
* RG: 70					
DALHOUSIE U..W K KELLOG HEALTH SCI	31	9	65	4.0	7.7
DEPT NATL HEALTH WELFARE..HEALTH PR	43	24	343	6.7	9.3
MCGILL U..MED LIB	159	47	424	30.2	11.4
MEM U NEWFOUNDLAND..FAC MED LIB	33	3	11	4.8	8.7
NATL RES COUNCIL OF CANADA..NATL SC	141	100	2205	17.3	7.4
U BRITISH COLUMBIA..LIB	60	69	692	16.3	16.3
U CALGARY..LIB	43	21	543	7.7	10.7
U MANITOBA..LIB	6	5	108	.7	7.0
U SASKATCHEWAN..HEALTH SCI LIB	16	8	82	2.9	10.9
U TORONTO..LIB	19	9	138	5.5	17.4
* TOTAL FOR RG: 70	551	295	4611	96.1	
* RG: 80					
BIBLIOTECA REG DE MED..ORG PAN AMER	0	0	0	.1	.0
BRITISH LIB LEND DIV	2	0	0	4.7	141.0

MEDLINE CENTER	TOTAL SEARCHES @ SYM	TOTAL OFF-LINE PRINTS	TOTAL PAGES	TOTAL HOURS	AVERAGE MIN. PER SEARCH
I.N.S.E.R.M.	144	20	412	31.7	13.2
NATL INST MED RES LIB..LONDON	14	0	0	3.0	12.9
* TOTAL FOR RG: 80	166	20	412	39.5	

** GRAND TOTAL - DECEMBER 1973

TOTAL SEARCHES - @ SYMBOLS	14086
TOTAL OFF-LINE PRINTS	5502
TOTAL PAGES OFF-LINE	62[illegible]
TOTAL HOURS	5292.0
AVERAGE MIN. PER SEARCH	9.6

NATIONAL LIBRARY OF MEDICINE

LIBRARY NETWORK/MEDLARS TECHNICAL BULLETIN

of the

Library Component of the Biomedical Communications Network

No. 59 MARCH 1974

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U.S. DEPARTMENT OF HEALTH, EDUCATION, AND WELFARE
Public Health Service
National Institutes of Health

LIBRARY NETWORK/MEDLARS TECHNICAL BULLETIN
of the
Library Component of the Biomedical
Communications Network

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The LIBRARY NETWORK/MEDLARS TECHNICAL BULLETIN is issued monthly by the Office of the Associate Director for Library Operations.

MEDLINE DATA BASES

The configuration of the MEDLINE data bases was changed last month. MEDLINE now contains all MEDLARS citations (the former MEDLINE plus COMPFILE) from January 1972 through March 1974 and must be searched with 1974 MeSH vocabulary. MEDFILE and COMPFILE correspond with the previous MEDLINE and COMPFILE respectively. These two files contain citations from January 1970 through December 1973 and must be searched with 1973 MeSH vocabulary. On February 25 SDILINE and MEDLINE were updated at NLM and SUNY. SDILINE now contains March 1974 citations only and must be searched with 1974 MeSH vocabulary. The sizes of the data bases are as follows:

MEDLINE	(Jan 72 - Mar 74)	- 497,811
SDILINE	(Mar 74)	- 17,717
MEDFILE	(Jan 70 - Dec 73)	- 533,035
COMPFILE	(Jan 70 - Dec 73)	- 351,891

MEDLINE TECHNICAL NOTES

PLEASE QUERY THE NLM/MEDLINE NEWS FILES DAILY

JOURNAL CODES

Until a printed listing of all Index Medicus journals with their three character Journal Codes is distributed by MEDLARS Management Section, the Journal Codes for these titles and for new titles not appearing in this list may be located in the SERLINE data base, on-line. For example, a user wishing to know the Journal Code for the title Anaesthesia and Intensive Care would first login to NLM/MEDLINE and, after the USER: cue, enter "FILE SERLINE". That title could then be located using the Title Search Key of the unit record (see page 121, MEDLINE Reference Manual) as illustrated below:

```
User:
"FILE SERLINE"

SS 1/C?
User:
ANA/A/I/C
Prog:
Pstg (1)
SS 2/C?
User:
"PRINT TI, JC"
Prog:
TI- Anaesthesia and Intensive Care
JC- 4M5
```

DATE SEARCHING

The MEDLINE file now covers the period of January 1972 through the current Index Medicus month, for all MEDLARS citations. Therefore, when searching in MEDFILE and COMPFILE for citations, you must remember to use the strategy AND 1970 THRU 1971 to avoid retrieving the citations previously retrieved in MEDLINE.

PROGRAM MESSAGE, TYMSHARE

Users logged into the NLM/MEDLINE through Tymshare will receive the message DROPPED BY HOST SYSTEM after the GOOD-BYE! and time/date message, or if they are accidentally disconnected from the system. This indicates completion of the disconnect from the NLM/MEDLINE computer. The PLEASE LOG IN: message should then appear, allowing the user to login to another system. This message will not appear when logging off of the SUNY/MEDLINE system.

SYSTEM STATUS, INQUIRIES

All telephone inquiries relating to the operating status of the MEDLINE system either at NLM or SUNY, between the hours of 8:30 a.m. and 5:00 p.m. (Eastern Time), should be directed towards MEDLARS Management Section in Bethesda, Maryland (301/496-6193). Inquiries about the operating status of either system during other hours may be directed towards the computer room of the system in question.

NLM Computer Room - 301/496-2734 - Bethesda, Md.

SUNY Computer Room - 518/457-4155 - Albany, N.Y.

GLUCOSEPHOSPHATE DEHYDROGENASE DEFICIENCY

Questions have arisen as to how a user should enter this term at the terminal, because of the manner in which it was printed in the 1974 MeSH vocabulary listing. In order to distinguish this term from other similar terms in the vocabulary, it should be entered as follows:

SS 1/C?
USER:

GLUCOSEPHOSPHATE DEHY- DROGENASE DEFICIENCY

FEBRUARY TECHNICAL BULLETIN. ERRATUM

In the table on page 14 of the February issue of the Technical Bulletin (No. 58), the figure for NLM "Total Requests Filled" in "FY 73" (column 1, row 6) should be changed from 73,462 to read 77,134.

NETWORK DEVELOPMENTS

Joseph Leiter, PhD
Associate Director for Library Operations

1974 will be a significant year for the Library network. The transition from MEDLARS I to MEDLARS II will result in a great many systems and operational changes that will affect all network users. Most of these should provide greatly improved access and capabilities for on-line and off-line services. Cooperation in this changeover will be essential, if the transition is to occur with a minimum of disruption.

This transition will not be a sudden changeover from one system to another, but will represent a succession of events over an extended period of time. These events will be influenced by a number of different variables, including:

1. the completion of testing of programs
2. the implementation of software changes at NLM
3. the conversion of massive data bases
4. the institution and shakedown of new procedures for indexing, generation of data bases etc.
5. expansion of vocabulary
6. training and orientation of staff, users, and others.

Many unforseen difficulties may result in schedule changes and in operational difficulties which may temporarily interfere with current operational efficiency. We hope that you will be patient during the next few months.

In order to keep you as well informed as possible we will begin to identify events as soon as they can be projected and provide actual dates as soon as they can become firm. This should alert you to any events sufficiently in advance of their occurrence to minimize any distruption. Each month we will try to update these projected events and to modify the schedules as contingencies demand.

We look forward to your cooperation in this difficult task. It is probably the most trying operation we have ever undertaken since MEDLARS was implemented and we will need all the cooperation and help we can get.

Item 1: SERLINE — The SERLINE data base will be regenerated by March 29, 1974. For details see "SERLINE Developments" article in this issue.

Item 2: ELHILL 3 TEST — In April 1974, NLM will conduct a network test of ELHILL 3 (the on-line search portion of MEDLARS II). All MEDLINE Centers will have access to a test data base, containing January through March 1974 citations, for about three weeks. Login instructions are contained in the December 1973 issue of the Technical Bulletin, page 10. Following completion of this test, further access to ELHILL 3 will be scheduled and announced.

Item 3: TOXLINE — In April 1974, TOXLINE will be transferred to the NLM computer and will run under ELHILL 2 programs. Only present TOXLINE users will have access to the system at this time.

Item 4: TYMSHARE NODE

On April 12, 1974 a new Tymshare node at Columbus, Ohio (815/232-2181) is scheduled to be operational.

Item 5: MEDLARS II BRIEFINGS

Representatives from NLM are making plans to visit each Regional Medical Library to conduct MEDLARS II briefings. The first briefing is expected to take place at the end of April. Schedules of visits will be made available in the April issue of the Technical Bulletin.

Item 6: SUNY

In May, the State University of New York (SUNY) will move its computer facility to a new location. An IBM 370/158 computer will be installed and it is expected that current hardware problems will be eliminated. An initial shakedown period will be necessary and subnormal service may occur during this time. NLM/MEDLINE will be operational during this time.

Item 7: TOXLINE

About July 1974 MEDLINE users will have an opportunity to access TOXLINE. Information regarding agreements, purchase orders, etc. will have been sent to all MEDLINE Centers prior to July. Details will be provided in a future issue of the Technical Bulletin.

Item 8: HOURS

In the Summer of 1974, NLM will begin to provide regular service hours from its computer for non-U.S. Centers. Because of time zone differences, this service will be available in the early morning hours beginning at 3:00 a.m. E.T. However, use of the system will not be limited to non-U.S. Centers, but will be available to all "early birds."

Item 9: BACKFILE

NLM expects to complete conversion of all citation files back to 1966 in the Summer of 1974. These backfiles will be available for off-line search on a regular schedule. A detailed article on the MEDLARS II files will be forthcoming.

Item 10: MeSH

The MeSH vocabulary is being expanded as a part of the MEDLARS II effort. Intensive review of the current Integrated Authority File is now underway. A substantial portion of this file is expected to be incorporated into the 1975 MeSH which will be prepared for publication during Summer 1974. The expanded vocabulary will probably be available for search before the 1975 MeSH is published. Announcement of this availability will be made when the completion of this task can be projected.

Item 11: ELHILL 3 FREE-TEXT SEARCH

In the Fall of 1974, title word and free-text searching in MEDLINE is expected to be available under ELHILL 3 in the same manner as now under SDILINE. It is expected that initial computer input of abstracts will begin by early summer and free-text searching of MEDLINE abstracts will then become available. A A more detailed article will appear in the next issue of the Technical Bulletin.

SERLINE DEVELOPMENTS

Betsy Humphreys
Serial Records and Binding Section, NLM

By March 29 the operational SERLINE file will replace the experimental file now available to the network. The operational file contains 5600 titles with new data in many fields, updated and corrected data in other fields, and many additional complete bibliographic records. In the operational SERLINE, the large majority of records carry full bibliographic and locator data.

NEW BIBLIOGRAPHIC DATA

Journal Title Abbreviation (JT)

Journal title abbreviations have been assigned and added to the file according to the same standard followed in Index Medicus. (Word-Abbreviation List, National Clearinghouse for Periodical Title Word Abbreviations. American National Standards Institute, Standards Committee Z39. Use and interpretation as explained by Thelma Charen and Constantine J. Gillespie, "MEDLARS Abbreviations for Medical Journal Titles", Bull Med Libr Ass 59 (3), July 1971, p. 420-429). In accordance with the policy of Index Medicus and other indexing and abstracting services, abbreviations have been assigned to the title in Roman characters if titles in roman and non-roman characters both appear on the cover of the piece.

Publisher (PU)

Publisher information now appears for the majority of SERLINE titles. A few simple guidelines were followed in constructing publisher names.

1. Each publisher name should appear in only one form in SERLINE.
2. U.S. government departments and agencies are entered directly, i.e. not preceded by U.S.
3. Foreign and state departments and agencies are preceded by the name of the country or state, if some indication of place does not appear in the department or agency name itself.
4. Names of Universities precede specific academic departments.

The following is a list of publishers with more than 20 titles in SERLINE. Names are as they appear in the data base and should be searched exactly in this form.

ACADEMIC PRESS
ALMQUIST AND WIKSELL
AVICENUM
BLACKWELL SCIENTIFIC PUBLICATIONS

BUTTERWORTH
CAMBRIDGE UNIVERSITY PRESS
CHEMICAL SOCIETY
DR DIETRICH STEINKOPFF VERLAG
EDIZIONI MINERVA MEDICA
ELSEVIER
EXPANSION SCIENTIFIQUE FRANCAISE
GEORG THIEME VERLAG
GRUNE AND STRATTON
GUSTAV FISCHER VERLAG
IZDATELSTVO MEDITSINA
IZDATELSTVO NAUKA
J B LIPPINCOTT
KARGER
MASSON ET CIE
MUNKSGAARD
PANSTWOWY ZAKLAD WYDAWNICTW LEKARSKICH
PERGAMON PRESS
PLENUM
SPRINGER VERLAG
WILEY INTERSCIENCE
WILLIAMS AND WILKINS
YEAR BOOK MEDICAL PUBLISHERS

Abstracting and Indexing Tags (AI)

The tag field now contains

BA - Biological Abstracts
CA - Chemical Abstracts
EM - Excerpta Medica

in addition to the IM (Index Medicus), MED (MEDLINE), AIM (Abridged Index Medicus), SCI (Science Citation Index), and EA (indicating the presence of English abstracts in journals in non-Western languages) tags available in the experimental file.

NOTE: MED tag

As announced in the last Technical Bulletin, the MEDLINE file now contains citations from 1972 to the present for all MEDLARS journals (i.e. all Index Medicus and Special List Journals). Consequently the MED tag in SERLINE no longer corresponds to the full list of journals available in the on-line citation file. At present in ELHILL II, it is not possible to limit MEDLINE searches to the subset of journals which formerly constituted the MEDLINE file. In ELHILL III it will be possible to limit searches to this smaller group of journals. For this reason, and because the old MEDLINE subset is useful for acquisitions purposes, SERLINE retains the MED tag. The MED tag now appears on approximately 1070 titles, reflecting a recent revision of the list which reduced the number of titles by about 200. This revision increases the utility of the tag as an indicator of a basic group of biomedical journals.

The dates of the lists checked to provide the tags are:

IM, MED, AIM - March 1, 1974
SCI - early 1973
BA - early 1973
CA - early 1973
EM - 1971 (NLM has just received a 1973 Excerpta Medica list and will endeavor to update this tag as soon as possible)

NLM file tags will be updated throughout the year. CA and BA will be updated every 6 months through an arrangement with Chemical Abstracts Services. SCI will be updated annually. EM will be updated whenever a new EM list becomes available.

ISSN (SN) and CODEN (CX)

The majority of SERLINE titles now carry ISSN (International Standard Serial Number) and CODEN (The five-letter codes assigned to periodicals by the American Society for Testing and Materials).

CHANGES IN EXISTING DATA

Subject Headings (MH)

Subject headings are in the process of being changed from those used in the Union Catalog of Medical Periodicals (UCMP) to MeSH. All new titles are being added with MeSH headings. At present, both UCMP and MeSH headings must be used to do a complete subject search.

General Maintenance

The editing of the bibliographic fields in SERLINE is a continuous process, performed as title changes, cessations, etc., occur and as errors in existing data are pointed out. In reviewing the SERLINE list to edit their locator codes, many libraries pointed out errors in the data base and attempts have been made to correct them. NLM is extremely grateful for this valuable assistance. All SERLINE users are urged to report any mistakes they encounter while accessing the file.

In addition to corrections made when specific errors are brought to our attention, NLM also plans to edit each field systematically from time to time. The place of publication and country fields have recently been reviewed in this way.

ADDITION AND DELETION OF RECORDS

New bibliographic records will be added to SERLINE bi-monthly, selected from titles catalogued at NLM. When the new SERLINE is operational, users may retrieve just the new SERLINE records on-line by entering the word ADDS as a search statement. As always, SERLINE users are encouraged to suggest older titles for inclusion which may have been overlooked. New title information will hopefully be received through the auxilliary New Title File (see below).

A title is deleted from SERLINE when an examination of the piece reveals that it does not meet the criteria of being primary, substantive, and pertinent to bio-medicine, or when it is discovered that the title actually ceased before 1970.

LOCATOR CODES

Locator codes have been updated and edited for the original 66 libraries and added for an additional 49 libraries. A total of 5251 titles now have full locator data for 115 libraries. An additional 335 new records do not have locator codes. Since new bibliographic records are added more frequently than locator codes, there will always be some SERLINE records without locator data.

The libraries with codes in SERLINE are regional resource libraries designated by the RMLs. A useful index to the codes prepared by Thelma Charen of the Indexing Section appeared in the January 1974 Technical Bulletin (no. 57, pp. 16-21).

General Schedule for Updating Locator Codes

1. Collecting Codes for New SERLINE Titles

   A list of new SERLINE titles will be sent to each resource library every six months, beginning in June of 1974. The resource libraries will check the lists against their holdings and return them to NLM for encoding and adding to SERLINE. Older records which have recently undergone extensive corrections in the title field will also be included in the list of titles to be checked by resource libraries.

2. Adding Codes to Older SERLINE Titles

   Also at 6 months intervals, each resource library will submit a list of older titles, with identifying SERLINE sequence number, which they have added to their collections over the past six months.

3. Deleting Codes

   Once annually each resource library will submit a list of titles, with identifying SERLINE sequence numbers, which it has removed from its collection entirely. For the time being, deletions will be limited to such titles. NLM invites discussion on the question of discontinued titles for which substantial back files remain so some consistent policy on the retention or deletion of codes can be worked out.

Resource libraries are asked to submit information on their newly acquired titles only at the stated six months intervals when checking lists are sent out to the networks. Libraries will also be notified as to when to submit deletions. No resource library is compelled to participate in the updating program, but it is hoped that all the resource libraries will cooperate to make SERLINE as current and useful as possible. In the future, each library may be able to edit its own codes on-line, which would save time and effort both at NLM and out in the network.

HARD COPY PRODUCTS FROM SERLINE

Over the next few months, NLM will be providing computer printout copy of the data base to all libraries with codes in SERLINE. Long-range plans include annual publication of the SERLINE file for general sale and distribution.

NLM will also provide special lists (e.g. unique holdings, negative holdings) to assist in regional cooperative acquisitions efforts. Regional Medical Libraries should contact Betsy Humphreys at 301-496-1276 to discuss specific regional requirements.

AUXILIARY NEW TITLE FILE

To assist in serial acquisitions throughout the network, NLM will set up a file comprised of new title and title change information. This file will be accessed in the same way as SERNEWS and other network news files. Titles will be input as they are ordered by NLM or as they are reported to NLM by other libraries in the Network. Eventually, it is hoped that libraries throughout the network will be able to enter their new title information to the file directly. The file will be cleared bi-weekly to keep it to a reasonable size and decrease the cost of use. The new title file should be available in May. More details on its operation will be available later.

CATLINE SEARCH HINTS

Lillian Kozuma
Cataloging Section, NLM

The NLM Cataloging Section sometimes abbreviates certain form subheadings in order to preserve space in the printed Current Catalog. These abbreviations are not listed in Medical Subject Headings and are supplied below to enhance your subject-search retrievals:

POPULAR WORKS	=	POP. WKS.
COLLECTED WORKS	=	COLL. WKS.
LABORATORY MANUALS	=	LAB MANUALS

Therefore, if you wish to retrive all works in CATLINE on diet therapy for the layman, the following search strategy is recommended:

```
SS 1/c? POPULAR WORKS OR POP. WKS.
SS 2/c? 1 AND DIET THERAPY
```

Please note that the EXPLODE strategy is not operative on CATLINE at the present time. CATLINE does not carry any MeSH Tree Numbers which would permit the use of EXPLODE. If you wish all facets of a category subgroup, all related terms must be ORed together for retrieval.

LITERATURE SEARCH SUGGESTIONS

Geri Nowak
MEDLARS Management Section, NLM

The NLM Literature Search Program committee would like to remind you that we would be pleased to receive your suggestions for 1974 L.S. topics. The topics may be of current concern or any that would be of general interest to our MEDLINE and Index Medicus users. We would appreciate it if your suggested topic was accompanied by a MEDLINE search formulation or a description of how you wish the search to be limited in scope.

You may send in your contribution through the "COMMENT" command, the TSO SEND routine to NLM53 or a letter addressed to MMS (see address below).

Many suggestions have been received from our Technical Bulletin readers. We thank you for sending them and encourage you to continue keeping us aware of suitable topics. Unfortunately, it would be impossible to acknowledge each suggestion personally. However, we would like you to know that each topic will be reviewed on its own merits by the L.S. committee.

Mail your suggestions to:

Ms. Grace H. McCarn
National Library of Medicine
MEDLARS Management Section
Bethesda, Maryland 20014

MEDLINE ACCESS VIA ARPANET

Barbara Sternick
Office of Computer and Communications Systems, NLM

In March 1973, the National Library of Medicine installed two experimental connections to the Advanced Research Projects Agency's **NETwork** (ARPANET). These connections permitted two concurrent users access to two NLM computer systems via hard-wired lines to reserved ports (74 and 76) on the ARPANET Terminal Input Processor (TIP) located at the National Bureau of Standards. For some time these connections were available to users from 1:00 p.m. to 5:00 p.m. EST on weekdays. As the number of users grew, these lines became available on a full-time basis. Now that the NLM has installed three additional connections, there are five port connections to the NBS TIP (74, 76, 140, 142, 144 or decimal 30, 31, 48, 49 and 50 respectively). Ports 74 and 76 will again be used for other purposes until 1:00 p.m. EST on weekdays with ports 140, 142 and 144 available on a full-time basis. At present, there are six MEDLINE institutions using ARPA; three in Hawaii, two in Great Britain and one in Utah.

A user will go through several steps in using the ARPA Network. First, he sets his terminal at the proper speed and duplex (at least 30 characters per second, and full duplex for ASCII terminals). Second, he dials into the TIP. Third, he establishes a dialogue with the TIP to get the right set of parameters for his use. Fourth, he instructs the TIP to make the proper connections to MEDLINE. Fifth, the user will talk with MEDLINE; and finally, he will instruct the TIP to close his connection to MEDLINE. These steps and TIP responses are delineated below:

1. Dial the nearest TIP and identify your terminal type (user input identified in lower case). Type the terminal identification - e for ASCII Terminals operating at 110 bps, 150 bps, and 300 bps, or f for IBM 2741 type terminals.

2. The TIP responds with:

   HELLO XXX, where XXX is the TIP software version number

3. The user informs the TIP that a connection is desired to specific ports on a particular host by typing:

   @ h (space) 147 line feed
   @ s (space) t (space) s (space) 7400002 line feed
   @ r (space) f (space) s (space) 7400002 line feed
   @ p (space) b line feed
   76, 140, 142 and 144 may be substituted for the 74 to use one of the other four ports

4. The system responds

   T R Open
   or
   Open
   or
   T. Open
   R. Open

After the last response, the connection to the specified ports at NBS and NLM is established. The TIP will transmit the "OPEN" message to both the NLM system and to your terminal. The OPEN message sent to the NLM system will be treated as an invalid logon and the system will request you to logon again.

5. User logs into MEDLINE with /LOGIN space MEDXXXØ1 or LOGON XXXØ1 where XXXØ1 is the user's approved Terminal ID.

a. User interacts with MEDLINE after receiving greeting from MEDLINE in the usual manner. The only difference is that each intellectual search should be indicated with two @ signs (e.g., @@) rather than one.

b. User requests MEDLINE to terminate his session by entering "stop" and receives the goodbye and logoff message.

6. User requests the TIP to close his connection to MEDLINE by typing @ c line feed.

It is very critical after the logoff message from MEDLINE to close the TIP circuit in order to release the line for the next user. There are several TIP messages which indicate the port is in use or that a connection cannot be accomplished. TIP messages and their corresponding definitions are:

Closed	The port is already in use; try another port.
Can't	The TIP has been requested to perform an action it cannot perform. Please try again.

NOTE: 1) If errors are made when typing the TIP protocol, the user should hit the 'rubout' or 'delete' key on his terminal and retype the line.

2) If your terminal has a fast carriage return (drops leading characters) you should inform the TIP by typing @ space d space e line feed. This can be entered at any time in the process.

3) If an open message is received with only an R or T (indication that both transmit and receive cannot be accomplished) the user should attempt to close the circuit and type @ R and begin the log in process at the terminal identification step.

Users having difficulties establishing the connections or who are desirous of using this capability should contact MEDLARS Management Section, (301/496-6193).

PRIMATES: A BIBLIOTHECAL AND PRIMATOLOGICAL NOTE

Thelma Charen
Index Section, NLM

George Gaylord Simpson in The Principles of Classification and a Classification of Mammals (Bull Am Mus Nat Hist 85:180, 1945) says, "The primates are inevitably the most interesting of mammals to an egocentric species that belongs to that order." This, however, is not the reason for a technical note on our egocentric species by an even more egocentric representative of same. This note is occasioned by an unsuccessful class exercise in a recent MEDLINE training session, "Haptoglobin structure in man and non-human primates."

With variations and expansions, the basic search formulation was HAPTOGLOBINS AND PRIMATES (exploded). The search was fruitless in that it yielded little for "in man". The students felt that they were misled into using PRIMATES on the basis of the note in the Annotated MeSH under PRIMATES, which reads "includes man & lemurs in addition to APES and MONKEYS": since PRIMATES included man, a satisfactory yield was expected.

Unfortunately, no one stopped to reason that the search request "in man and non-human primates" was another way of saying, "I need haptoglobins in humans, in apes, in monkeys and in other non-human primates for which MeSH has no heading." They did not realize, moreover, that almost every article in our system which does not specify an animal is probably on man, and that a thousand times a day the indexing staff is indexing articles on the primate man, only the articles are being indexed not under PRIMATES, but under the Check Tag HUMAN.

Let us analyze the following tallies retrieved from MEDLINE at this writing (27 February 1974):

PRIMATES	360 postings
*PRIMATES	215 postings
HUMAN	277,108 postings
HAPTOGLOBINS	383 postings
HAPTOGLOBINS AND PRIMATES	1 posting
HAPTOGLOBINS AND HUMAN	335 postings

Follow any thought process you like in analyzing the above, but, using the request "haptoglobins in man and non-human primates" as an example of its type, absorb at least the following conclusions:

1. PRIMATES is not a device for retrieving articles involving man;
2. PRIMATES appears to have a restricted use.

1. While the MeSH annotation shows PRIMATES as including both man (or human) and non-human animals, it was intended only to show the scope of the term PRIMATES and by implication to tell the indexers and searchers that if they are interested in primates, our PRIMATES should not be restricted to the animal primates as the Tree Structure at B2.72.49 shows, but does indeed include man.

2. The heading PRIMATES is restricted to indexing Man not as a human being - whatever that term suggests to you! - but as a species. Since there is no MeSH term for MAN, Man as a taxonomic entity can be indexed only under PRIMATES. The evolutionary status of Man as an animal is indexed as PRIMATES.

When articles discuss Man or man as an animal or as a concept in comparative physiological, anatomical, genetic, psychological and other comparative studies, the heading PRIMATES is in order. To separate the articles on the primate man from the primate animal, the Check Tags HUMAN and ANIMAL should be indicated by the indexer.

Under PRIMATES the indexer will properly place Homosapiens, the Neanderthal man, the Rhodesian and Java man, Pithecanthropus erectus, Meganthropus, Australopithecus and other genera identified by the author as Man in his text.

MeSH gives only two see under references to PRIMATES, XU ANTHROPOIDS and XU TREE SHREWS, but PRIMATES is the correct heading for loris, lemurs, galagos, indris, bushbabies, tarsiers, aye-ayes, prosimians or others named as primates by the author and not otherwise indexed more specifically under APES or MONKEYS.

When searching Man as a primate, naturally PRIMATES (with the Check Tag HUMAN) should be the first adit. Terms like FOSSILS see under PALEONTOLOGY, PALEONTOLOGY, PALEOPATHOLOGY and PALEODONTOLOGY and even ARCHAEOLOGY will be fruitful only if these were additional facets of an article on early Man as a primate and if the indexer did not consider specifying PRIMATES at all since the author might not have viewed his own study on Man as a primate. EVOLUTION is a good MeSH heading but remember the evolutionary process must be discussed in the article; remember too that EVOLUTION need not be exclusively referrent to Man or other primates. Not all articles on EVOLUTION are on PRIMATES and not all articles on PRIMATES are on EVOLUTION.

As an interesting obiter dictum I can point out that Linnaeus named the order Primates in 1758 giving it the Latin meaning of primatus, first in rank. Simpson also mentions the classification of another early taxonomist, De Blaineville, who used Primates, but also Secundates (for insectivores and carnivores), Tertiates (for rodents) and Quaternates (for ungulates and sirenians).

The high tally on HUMAN above shows how often articles discuss humans in most of the literature we index. How small is the number of times the human is discussed as Man, the animal primate! In point of fact, the number of serial titles which might yield articles on Man are relatively few in comparison with the National Library of Medicine holdings which discuss man, the person.

The INDEX OF NLM SERIAL TITLES lists 36 titles containing the root ANTHROP- (as in "anthropology") and 11 titles containing the form PRIMAT- (as in "primatology"). Journals from among these entries as well as from among titles containing the form COMPARAT- (as in "comparative") or from among those containing the form ZOOLOG- would be good sources of articles on Man

as an animal or as a primate or in a taxonomic context. Unfortunately, from among these titles, here is the small coverage from the List of Journals Indexed in Index Medicus:

ANTHROPOLOGY

AMERICAN JOURNAL of PHYSICAL ANTHROPOLOGY (Philadelphia)
s) ANTHROPOLOGISCHER ANZEIGER (Stuttgart)
HUMAN BIOLOGY (Detroit)
ZEITSCHRIFT fur MORPHOLOGIE und ANTHROPOLOGIE (Stuttgart)

ZOOLOGY

s) ACAROLOGIA (Paris)
s) ACTA ZOOLOGICA et PATHOLOGICA ANTVERPIENSIA
s) ANIMAL BEHAVIOUR (London)
s) ANNALS of ZOOLOGY (Agra)
s) ANNUAL REVIEW of ENTOMOLOGY (Palo Alto)
s) BEHAVIOUR (Leiden)
s) BULLETIN BIOLOGIQUE de la FRANCE et de la BELGIQUE (Paris)
s) CANADIAN JOURNAL of ZOOLOGY (Ottawa)
CURRENT TOPICS in DEVELOPMENTAL BIOLOGY (New York)
s) ENTOMOLOGICAL NEWS (Philadelphia)
FOLIA PRIMATOLOGICA (Basel)
s) FORTSCHRITTE der ZOOLOGIE (Stuttgart)
s) JOURNAL of ECONOMIC ENTOMOLOGY (College Park, Md.)
s) JOURNAL of EXPERIMENTAL ZOOLOGY (Philadelphia)
s) JOURNAL of HELMINTHOLOGY (London)
s) JOURNAL of INSECT PHYSIOLOGY (Oxford)
s) JOURNAL of INVERTEBRATE PATHOLOGY (New York)
formerly JOURNAL of INSECT PATHOLOGY (New York)
s) JOURNAL of MAMMALOGY (Lawrence, Kans.)
JOURNAL of MEDICAL ENTOMOLOGY (Honolulu)
s) JOURNAL of PROTOZOOLOGY (New York)
s) MALACOLOGIA (Ann Arbor)
PRIMATES in MEDICINE (Basel)
s) REVUE SUISSE de ZOOLOGIE (Geneve)
RIVISTA di BIOLOGIA (Perugia)

Obviously not all titles are relevant and equally obviously not all relevant titles may be factually productive. I did not bother to peruse possible candidates under PHYSIOLOGY, ANATOMY or PSYCHOLOGY in the List of Journals Indexed in Index Medicus.

Lest there be continued or future misunderstandings about what the 1974 annotation under PRIMATES means, I shall change it for 1975 to avert mishap. The 1975 note will read something like the legend below and should be applied immediately thus by both indexers and searchers:

PRIMATES	for human & non-human primates; index here lemurs, loris, aye-ayes, bushbabies, indris, tarsiers, galagos & prosimians; for Man only as a taxonomic entity or man as an animal; do not confuse with the tag HUMAN for the usual article in which a human figures; when indexing PRIMATES, check also the tag HUMAN or ANIMAL as applicable.

MEDLINE TRAINEES AT NLM, JANUARY 21, 1974

The sixteenth NLM MEDLINE Training Class was held January 21 - February 8, 1974. The following people attended:

Lillian Cambeis	Children's Hospital Washington, D.C.
Cynthia Chapman	Library of Congress Washington, D.C.
Pamela Kerns	East Carolina University Greenville, North Carolina
Helen-Ann Kur	Walter Reed Army Medical Center Washington, D.C.
Lee-Allison Levene	University of Kansas Medical Center Kansas City, Kansas
Robert Lord	SUNY - Brooklyn, Medical Research Library Brooklyn, New York
Cami Loucks	Research Hospital and Medical Center Kansas City, Missouri
Jerry Meyer	Stitt Library National Naval Medical Center Bethesda, Maryland
Judith Mullaney	Environmental Protection Agency Cincinnati, Ohio
Nannette Pope	Armed Forces Radiobiology Research Institute National Naval Medical Center Bethesda, Maryland
Lee Rogers	Federation of American Societies for Experimental Biology Bethesda, Maryland
Laura Rucker	University of Oklahoma Oklahoma City, Oklahoma
June Thompson	Consumer Products Safety Commission Bethesda, Maryland

MEDLINE TRAINEES AT UCLA, JANUARY 23, 1974

The University of California Biomedical Library, Los Angeles held its eleventh MEDLINE Training Class January 23 - February 7, 1974. The following people attended:

Michael Bennett	The Paul H. Guttman Library Sacramento County Medical Society Sacramento, California
Shirley Chervin	Medical Sciences Library University of California Irvine, California
Harriet Cohen	Naval Regional Medical Center Medical Library Oakland, California
Peta Hallisey	University of Southern California Norris Medical Library Los Angeles, California
Patricia Kinnison	University of California, San Diego Biomedical Library La Jolla, California
Joyce Marson	Courville-Abbott Memorial Library White Memorial Medical Center Los Angeles, California
Jesse Neely	Scripps Clinic and Research Foundation La Jolla, California
Lesley Rahm	Orange County Medical Center Orange, California
Michele Winters	Thompson Medical Library Naval Regional Medical Center San Diego, California

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U.S. DEPARTMENT OF HEALTH, EDUCATION, AND WELFARE
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LIBRARY NETWORK/MEDLARS TECHNICAL BULLETIN
of the
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The LIBRARY NETWORK/MEDLARS TECHNICAL BULLETIN is issued monthly by the Office of the Associate Director for Library Operations.

JOURNAL CITATION DATA BASES

The journal citation data bases continue to be structured as follows: MEDLINE contains all MEDLARS citations (Index Medicus plus special list journals) from January 1972 through April 1974 and must be searched with 1974 MeSH vocabulary. MEDFILE and COMPFILE contain citations from January 1970 through December 1973 and must be searched with 1973 MeSH vocabulary. On March 18 SDILINE and MEDLINE were updated at NLM and SUNY. The sizes of the data bases are as follows:

MEDLINE (Jan 72-Apr 74)	- 516,231
SDILINE (Apr 74)	- 18,419
MEDFILE (Jan 70-Dec73)	- 533,035
COMPFILE (Jan 70-Dec 73)	- 351,891

ON-LINE TECHNICAL NOTES

PLEASE QUERY THE NLM/ON-LINE NEWS FILES DAILY

VIDEO TAPE, MEDLINE

A MEDLINE video tape is now available upon request. The tape is 23 minutes long, in color, and includes an on-line sample search. The presentation is directed towards the untrained user, as opposed to librarians, and is intended primarily to make the user aware of the MEDLINE system and a few of its capabilities. Copies of this tape are available without charge, but the requester must provide a blank video tape (casette or reel-to-reel) at least 30 minutes in length. The presentation is not available on 16 mm film at this time. Below is information necessary to place an order.

TITLE: MEDLINE (MEDLARS ON-LINE)

ACCESSION #: V3008-X

TAPE REQUIRED: Video Casette, 3/4" or Video Reel-to-Reel, 1" (blank - 30 minutes in length)

ADDRESS REQUEST TO: Video Duplicating Services
National Medical Audiovisual Center
1600 Clifton Road
Atlanta, Georgia 30333

USER CHARGES

If you have not already done so, please send to MEDLARS Management Section, as soon as possible, the rate(s) charged to your users for the on-line services provided to your center by the National Library of Medicine. If your center is not charging

for these services, please forward a negative reply. Centers should also include their terminal ID along with this information.

JOURNAL CODES

The March 1974 issue of the Technical Bulletin (page 2) outlined a method for locating Journal Codes in the SERLINE data base. For titles with less distinctive Title Search Keys, e.g., Journal of the Arkansas Medical Society (JOU/O/T/A), the Title Search Key should be entered in conjunction with a title word (page 124, MEDLINE Reference Manual) in order to limit retrieval, as illustrated below.

```
SS 1/C?
User:
JOU/O/T/A AND ARKANSAS (TW)
Prog:
Pstg (1)

SS 2/C?
User:
"PRINT TI, JC"
Prog:
TI- Journal of the Arkansas Medical Society
JC- HEV
```

TERMINAL ID

Please include your terminal ID, e.g., MEDXYZØ1, on all correspondence to MEDLARS Management Section. This will enable the staff to handle your requests or problems more efficiently.

TOXLINE, NEWS FILE

A TSO news file for TOXLINE has been added. To access this file once you are in ELHILL type:

1. "QUIT" (the system gives you READY)
2. LIST 'TOXLINE'

MEDLINE NEWS

The News file under MEDLINE will be updated so that you will not have to go to TSO but rather can stay under ELHILL to obtain current news. We plan to make News serve as our way to send general news. 'FLASH' will be used only in very urgent cases.

To access MEDLINE News simply type "NEWS". You do not have to go to TSO. Note that other files, such as 'PHONES' will continue to be available under TSO.

CHECK TAG ANIMAL

In the November 1973 issue of the Technical Bulletin the article entitled "1974 INDEXING ORIENTATION" stated in part that the old check tag ANIMAL EXPERIMENTS has been replaced by a new check tag ANIMAL for the 1974 MEDLARS indexing. A MEDLINE search, however, on the new check tag ANIMAL yields NO POSTINGS, even

though the MEDLINE data base now includes four months of 1974 indexed citations.

File maintenance of the new check tag has been postponed due to the amount of computer time that is required to replace the term ANIMAL EXPERIMENTS with the term ANIMAL. The searcher, therefore, must continue to use the term ANIMAL EXPERIMENTS when searching under ELHILL 2.

In ELHILL 3, the term ANIMAL will be an entry term and will map to ANIMAL EXPERIMENTS. Therefore, when searching under ELHILL 3 the searcher will have a choice of entering either term.

The print version of the check tag will continue to be, for at least this year, ANIMAL EXPERIMENTS when "PRINT FULL" or "PRINT TRIAL" or "PRINT MH,___" is requested.

SEARCH COSTS AND @ SYMBOLS

Since TOXLINE is now running under the ELHILL system at NLM, and these searches are calculated at a different rate from MEDLINE searches, it is no longer possible for the program to calculate a cost after each @ symbol which would be accurate for all users. We have therefore discontinued the practive of giving the cost after the @ symbol. Users will be able to calculate their TOXLINE or MEDLINE costs from the time, which will still be provided after the @ symbol. We suggest that fractions of a minute be considered as one minute for purposes of passing on costs to customers.

POSTINGS OVERFLOW

The number of records that will be processed to execute a single search statement has been lowered from 350,000 to 300,000. Search statements using large posted terms, which retrieve over 300,000 records, will be ignored by the system and the user will receive the POSTINGS OVERFLOW ( ) message. The search statement must then be reformulated or broken into smaller units to ensure lower retrieval.

SDILINE, UPDATES

A projected schedule for updating SDILINE for the next four months follows. NLM will attempt to keep this schedule if at all possible. Note: Special List Journals are also included in SDILINE.

April 15	-	May Index Medicus
May 13	-	June Index Medicus
June 10	-	July Index Medicus
July 15	-	August Index Medicus

NETWORK DEVELOPMENTS

Joseph Leiter, Ph.D.
Associate Director for Library Operations

Item 1: SERLINE

The SERLINE data base was regenerated on April 5, 1974, and is available for on-line use. The EM (Excerpta Medica) tag in SERLINE now reflects the 1973 Excerpta Medica List of Journals Abstracted.

Item 2: ELHILL 3 Test

On April 11, the network testing of ELHILL 3 began. Please send comments, good or bad, about ELHILL 3 to MEDLARS Management Section.

Item 3: TOXLINE

On March 18, 1974 TOXLINE began running on the NLM computer. Present TOXLINE users had free access to the file until April 1. On April 1, NLM started charging for TOXLINE use. For current information and news about TOXLINE access, LIST 'TOXLINE'. See TOXLINE ON THE NLM COMPUTER, Page 7.

Item 4: TYMSHARE Nodes

New Nodes:

New York, N.Y.	212/750-9445
Southbend, In.	312/368-4607
Annapolis, Md.	301/268-9290

Telephone Number Changes:

Denver, Co.	303/458-7921
New Orleans, La.	504/586-1071
Phoenix, Ar.	602/249-9261
Palo Alto, Ca.	415/494-3900
Cambridge, Ma.	617/491-5476

Delayed Access:

Columbus, Oh.	614/421-7270 now due April 22

Item 5: MEDLARS II Briefings

MEDLARS II briefings have been scheduled for all regions. See Page 6 of this issue for details.

Item 6: TOXLINE

Information regarding agreements, purchase orders, etc. have been sent to all TOXLINE Centers. A user's meeting was held March 26 and 27 to discuss the change to the NLM computer.

Item 7: ELHILL 3

The MEDLINE file at NLM will be run under ELHILL 3 in May 1974. Note that SDILINE, CATLINE, SERLINE, TOXLINE, MEDFILE, and COMPFILE will continue to be under ELHILL 2 until remaining programs are completed for MEDLARS II.

Item 8: SUNY

It now appears that the SUNY service will be moved to a new computer, an IBM 370/158, in late May. Some difficulties can be expected during the transition, but much more reliable service is anticipated after conversion.

MEDLARS II BRIEFINGS

William H. Caldwell
Chief, Bibliographic Services Division

A briefing session on MEDLARS II has been scheduled at each RML. The schedule is as follows:

Region	Date
I	Mon., April 15
II	Tues., April 16
III	Fri., May 3
IV	Wed., May 15
V	Fri., April 26
VI	Wed., May 8
VII	Thurs., April 25
VIII	Wed., April 24
IX	Thurs., May 9
X	Wed., May 22
XI	Thurs., May 23 (San Francisco) Fri., May 24 (Los Angeles)

Representatives of each MEDLINE center are encouraged to attend the briefing for their Region; RML directors will announce the location and time of the sessions.

NLM staff members will be present to conduct the briefings, which will deal with two aspects of MEDLARS II:

1. ELHILL 3. The MEDLARS II search programs will be somewhat different from the present ELHILL 2. It is imperative that MEDLINE analysts be aware of these differences. In addition, ELHILL 3 will provide some new, powerful capabilities which searchers will find useful. Since ELHILL 3 searching will be discussed at the briefing, at least one trained MEDLINE searcher from each center should plan to attend. (Attendance by more than one is at the option of the RML director, subject to space limitations.) ELHILL 3 search programs will have been available for network-wide testing before the briefings take place; questions or problems arising during the test period should be brought up during the briefings.

2. Policy. MEDLARS II will make some new files available for searching. Access to these files, and the additional search capabilities mentioned above, will have an impact on the network and on each participating library. Service policies, use fees, and other administrative aspects will be discussed. For this reason each MEDLINE center should be represented by its head librarian, MEDLINE project manager, or other appropriate person with administrative and fiscal responsibility.

TOXLINE ON THE NLM COMPUTER

TOXLINE, the on-line toxicology information resource of the Specialized Information Services of NLM, became another of the on-line services offered directly from the Library, on April 1, 1974. TOXLINE contains over 300,000 bibliographic citations, the majority with both abstracts and Chemical Abstracts Service (CAS) Registry numbers. The six data bases comprising TOXLINE include Chemical-Biological Activities (CBAC) from 1965, Toxicity Bibliography from 1968, Health Aspects of Pesticides Abstract Bulletin from 1966, Abstracts on Health Effects of Environmental Pollutants from 1972 and International Pharmaceutical Abstracts from 1970. By April 22, a 22,000 citation update will be completed and a 60,000 record chemical dictionary will be available on-line. The dictionary contains CAS Registry numbers; systematic, trivial and trade names; molecular formulae; and Wiswesser Line Notations.

TOXLINE has been available to the public since October 1972 from a contractor to the NLM, but is now accessible from NLM at a 67% reduction in price to the subscriber. All current TOXLINE users will have immediate access to the NLM service. To provide a smooth transition for these 80 institutions, a TOXLINE User Meeting was held on March 26 followed by a one-day tutorial on TOXLINE under the ELHILL retrieval system. Over 130 individuals attended one or both sessions conducted by Mr. D. Hummel and featuring presentations by Dr. S. Valley and Mr. D. Kenton.

TOXLINE is offered on an equal access basis to all institutions desiring to subscribe to this unique data base. The cost of TOXLINE is set at $15/connect hour (including the Tymshare network) and $0.10/page of off-line print. For further information or to initiate a subscription, inquiries should be addressed to Mr. Donald Hummel of the Toxicology Information Program (Room C-6B) at the NLM.

LIST OF MEDLINE JOURNALS

Mailed out with this issue of the Technical Bulletin is a list of the 2,427 Index Medicus journals which are in the MEDLINE data base. Also included are cross-references to these titles. The full title of each journal, the journal title code (JTC), and the International Standard Serial Number (ISSN) are included. This list was produced from the SERLINE file. Note the following:

1. "Special List" journals such as the Nursing and Dental titles, are in the MEDLINE data base but are not included in this list.

2. This list contains all Index Medicus titles including those which ceased publication or changed titles after 1969.

3. Journal title abbreviations are not included. If needed these may be obtained from the List of Journals Indexed in Index Medicus.

NODE ASSIGNMENT FOR ACCESSING ON-LINE FILES

Grace H. McCarn, MEDLARS Management Section, NLM
Leonard J. Bahlman, MEDLARS Management Section, NLM

The following usage figures for FY 1974 indicate that the greater portion of on-line usage was on the NLM system (19,850 hours) as opposed to the SUNY system which had only 8,633 hours of use.

	NLM			SUNY		
MONTH	TOTAL OFF	TOTAL @	TOTAL HRS	TOTAL OFF	TOTAL @	TOTAL HRS
1973						
JUL	3,054	12,452	2303.6	737	3,672	566.7
AUG	3,483	13,604	2673.2	879	3,482	681.0
SEP	2,354	9,528	2345.0	1,386	3,940	741.6
OCT	3,645	13,867	3099.8	1,696	5,968	1069.1
NOV	2,944	12,605	2540.7	1,779	6,972	1270.6
DEC	1,897	9,204	1509.6	1,572	6,265	1160.4
1974						
JAN	3,074	21,688	2672.1	2,450	9,646	1599.0
FEB	2,845	13,823	2706.2	2,120	9,747	1544.8
TOTAL	23,296	106,771	19,850.2	12,619	49,692	8,633.2

This high use of the NLM computer increases the response time for NLM and NLM2 users as shown below:

	AVERAGE SEARCH TIME (MINUTES)	AVERAGE CHARACTERS TRANSMITTED PER SECOND
NLM	11.7	6.5
SUNY	9.6	8.5

As you can see from the above, it is to your advantage (time and expense-wise) to use SUNY whenever possible. We are therefore again requesting that users adhere strictly to the node assignments listed below. If your Primary Node is SUNY, and you are accessing one of the files not residing on the SUNY system, you should return to SUNY as soon as possible after you have completed your

searching in that file. If you have searches which must be run immediately, and SUNY is your Primary Node, but is not available, you may use the Alternate Node assignment, but the search session should be as short as possible.

	PRIMARY NODE	ALTERNATE NODE
TYMSHARE users accessing MEDLINE and/or SDILINE	SUNY	NLM or NLM2
TYMSHARE users accessing TOXLINE, SERLINE, COMPFILE, CATLINE, MEDFILE	NLM2	NLM
Users of WATS lines beginning with 800-631	NLM2	SUNY
Users of WATS lines beginning with 800-336	NLM	SUNY

Direct dial users are automatically routed to the NLM computer. If the direct dial numbers are busy and TYMSHARE must be used, these users should access SUNY as the Primary Node. All Federal users are responsible for paying their own communications costs. Whenever possible, they should call direct to NLM, not through the TYMSHARE network. Federal centers who use FTS may call 301/496-1994, 95, 96. Federal users who do not have access to FTS are authorized to call the nearest/least expensive TYMSHARE node, and should use the SUNY computer as their Primary Node. Finally, Federal users in the Washington, D.C. metropolitan area should call direct to NLM and not use the FTS numbers. Note that 654-2687 as well as 654-7722 is available for 30 character, ASCII, direct-dial users.

JANUARY THROUGH MARCH 1974 TECHNICAL BULLETIN CUMULATIVE INDEX

Mailed out with this issue is a cumulative index to the first three issues (January - March 1974) of the Library Network/MEDLARS Technical Bulletin. A six-month, nine-month and a twelve-month cumulative index will be issued in the forthcoming months.

ERRATA--MEDICAL SUBJECT HEADINGS
1974 Vol. 15, Number 1, Part 2, January 1974 INDEX MEDICUS

Page	
39	Col. 1 at top of page - add; CARTILAGE DISEASES (C3) Col. 2 at top of page - add; CATARACT EXTRACTION (E4)
268	Under SENSE ORGANS - change Taste Buds (A8) to Taste Buds (A3)
355	Under HYDROCARBONS - change Hydrocarbons, Haalogenated to Hydrocarbons, Halogenated
413	Delete: Artificial Limbs under OBSTETRICAL FORCEPS Add: Artificial Limbs under ORTHOPEDIC EQUIPMENT Delete: ORTHOPEDIC EQUIPMENT which follows ORTHOPEDIC FIXATION

MEDLARS INDEXING MANUAL REVISION: ATOMIC WEIGHTS OF ELEMENTS AND THEIR ISOTOPES

The MEDLARS INDEXING MANUAL, 18.23.5 and its Figure 18.23.5 gives indexing instructions for the precoordinated isotope or radioisotope terms newly added for 1974. In use, indexers and searchers have found this incomplete, since they need also indexing instructions for elements which are not listed in that figure.

There is now available a revision of this chart in the manual. It consists of a table of 11 pages and lists every element with its atomic weights and indexing instructions. For example,

Element	Isotope Atomic Element	Indexing Instructions
Argon (A)	40	ARGON
	36, 38	ARGON + ISOTOPES
	35, 37, 39, 41, 42	ARGON + RADIOISOTOPES

The chart was prepared by Mrs. Peri Schuyler, Index Section. Address your requests to MEDLARS Management Section but for ease of handling include a self-addressed label. We shall not be able to fill requests which do not include a label.

TECHNICAL BULLETIN ERRATA

The following errors should be corrected in "MEDLINE Access Via Arpanet" Library Network/MEDLARS Technical Bulletin, March 1974:

Page

12 11th typed line from bottom change; @ r (space) f(space) s(space) 7400002 to @ r (space) f (space) s (space) 7400003

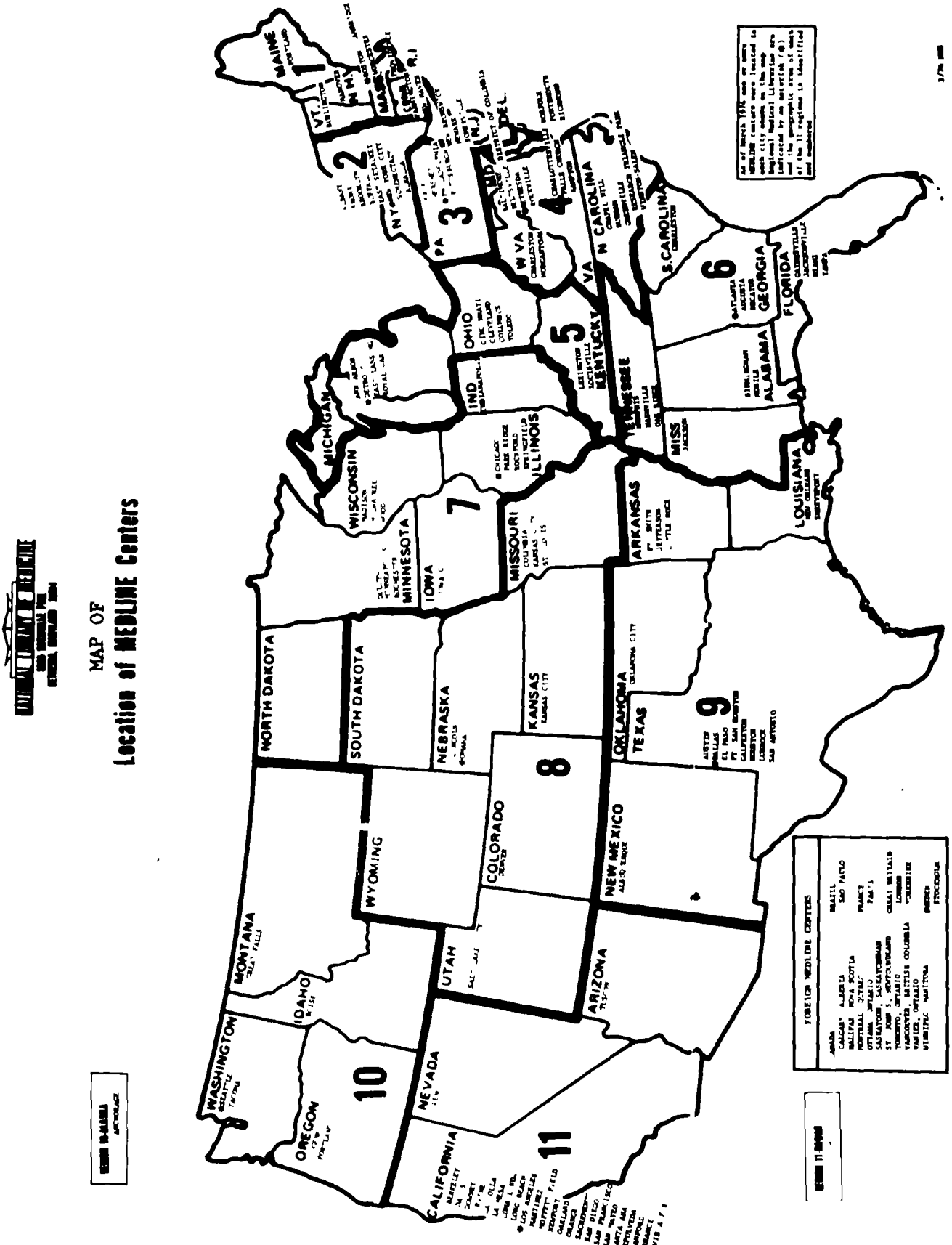
13 9th typed line from bottom change; ers) you should inform the TIP by typing @ space d space e line to ers) you should inform the TIP by typing @ space d space e space e line

MEDLARS ON-LINE DATA BASES--MARCH 1974

Ms. Charlotte Kenton
Head, Search Section, BSD

DATA BASE	COVERAGE	CONTENTS	NO. CITATIONS	THESAURUS	PRINT OPTIONS	COMPUTER AVAILABILITY	DAYS & HOURS OF SERVICE
MEDLINE	Jan 72-Dec 73 plus 1974 months	2900 Journal Titles*	Total 516231 English 327120 Foreign 189111 Special List 24094	1974 MESH	on-line off-line	NLM SUNY	M,W,Th,F 9-5 Tu 12-10 M,W, 9-7; Tu,F 9-5; Th 9-10
SDILINE	Current Month	2900 Journal Titles*	Total 18419 English 10638 Foreign 7781 Special List 889	1974 MESH	on-line off-line	NLM SUNY	M,W,Th,F 9-5 Tu 12-10 M,W 9-7; Tu,F 9-5; Th 9-10
MEDFILE	Jan 70-Dec 73 (use "70 thru 71" to limit retrieval)	1200 Journal Titles	Total 533035 English 406165 Foreign 126870 Special List 285	1973 MESH	off-line	NLM	M,W,F 9-5
COMPFILE	Jan 70-Dec 73 (use "70 thru 71" to limit retrieval)	1700 Journal Titles*	Total 351891 English 111869 Foreign 240022 Special List 42301	1973 MESH	off-line	NLM	Tu 12-10; Th 9-5
CATLINE	1965-Dec 73 Jan 74-Apr 74	monographs symposiums tech.reports	Total 137414 English 76593	1973 MESH (1974 MESH for 1974 material)	on-line off-line	NLM	M,W,Th,F 9-5; Tu 12-10
SERLINE	-	ca 5600 serial titles	-	1974 MESH and UCMP	on-line off-line	NLM	M,W,Th,F 9-5; Tu 12-10

*Includes Special List Nursing, Dental, Reproduction and Foreign journals.


MAP OF
Location of MEDLINE Centers
MAINE
VT.
N.H.
MASS.
R.I.
N.Y.
PA
N.J.
DEL.
MD.
W VA
VA
N CAROLINA
S.CAROLINA
GEORGIA
FLORIDA
ALABAMA
MISS
LOUISIANA
TENNESSEE
KENTUCKY
OHIO
IND
ILLINOIS
MICHIGAN
WISCONSIN
MINNESOTA
IOWA
MISSOURI
ARKANSAS
OKLAHOMA
TEXAS
NORTH DAKOTA
SOUTH DAKOTA
NEBRASKA
KANSAS
COLORADO
NEW MEXICO
WYOMING
MONTANA
IDAHO
UTAH
ARIZONA
WASHINGTON
OREGON
NEVADA
CALIFORNIA
1
2
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LIBRARY NETWORK/MEDLARS TECHNICAL BULLETIN

of the

Library Component of the Biomedical Communications Network

No. 61 MAY 1974

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U.S. DEPARTMENT OF HEALTH, EDUCATION, AND WELFARE
Public Health Service
National Institutes of Health

LIBRARY NETWORK/MEDLARS TECHNICAL BULLETIN
of the
Library Component of the Biomedical
Communications Network

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The LIBRARY NETWORK/MEDLARS TECHNICAL BULLETIN is issued monthly by the Office of the Associate Director for Library Operations.

JOURNAL CITATION DATA BASES

The Journal Citation data bases continue to be structured as follows: MEDLINE contains all MEDLARS citations (Index Medicus plus special list journals) from January 1970 through May 1974 and must be searched with 1974 MeSH vocabulary. MEDFILE and COMPFILE contain citations from January 1970 through December 1973 and must be searched with 1973 MeSH vocabulary. On April 15 SDILINE and MEDFILE were updated at NLM and SUNY. The sizes of the data bases are as follows:

MEDLINE	(Jan 72-May 74)	- 534,650
SDILINE	(May 74)	- 19,567
MEDFILE	(Jan 70-Dec 73)	- 533,035
COMPFILE	(Jan 70-Dec 73)	- 351,891

ON-LINE TECHNICAL NOTES

PLEASE QUERY THE NLM/ON-LINE NEWS FILES DAILY

PASSWORDS

The second password required when accessing the system via a training or demonstration code is changed on the first day of each month. It is the responsibility of the center which is temporarily using one of these codes to contact MEDLARS Management Section for the new password each month.

MeSH ERRATA, MISSPELLED TERMS

Several terms in the 1974 Medical Subject Headings (MeSH) vocabulary listing are misspelled. When searching on-line, these terms must be entered as they appear in the printed listing until the data bases are file maintained sometime in the future. Please report to MEDLARS Management Section any additional vocabulary errors.

CORRECT FORM	SEARCHABLE TERM, as it appears in MeSH
PHOSPHORUS RADIOISOTOPES	PHOSPHORUS RADIOSIOTOPES
KLEBSIELLA PNEUMONIAE	KLEBSIELLA PNEUNOMIAE
MEROMYOSINS	MEROMYSINS
BUNGAROTOXINS	BUNGARATOXINS
CEXTYLPYRIDINUM	CETYLPYRIDINIUM
COBALT RADIOISOTOPES	COBALT RADIOSIOTOPES

INTERRUPT, TWX TERMINALS

Users with TWX terminals may find that the HERE IS key may be used to escape from error loops and/or unfamiliar system messages on the NLM computer depending on the terminal specifications. After pressing the HERE IS key once, the system should respc with the READY cue, enabling the user to access one or more oı the News Files, or to reenter the search environment by typing ELHILL after the READY cue.

@ SYMBOLS - "STOPPING"

After entering the "STOP" command in ELHILL, the system will prompt the user with the message BEFORE STOPPING, HAVE ... PLEASE DO SO BEFORE ANSWERING YES. At this point the user has three alternatives, (a) enter YES, whereupon the system will end the session with the GOOD-BYE! and USER: message, (b) enter NO if he desires to continue searching, and the system will respond with the last search statement number and a USER: cue; or (c) following the system message BEFORE STOPPING, HAVE ... and the USER: cue he may enter one @ symbol and a carriage return for each intellectual search. When using the last method (c), a YES response must follow a USER: cue after all @ symbols have been entered, to logoff properly.

(a)

```
"STOP"
PROG:
BEFORE STOPPING...
USER:
YES
TIME 00:00....
PROG:
GOOD-BYE!
USER:
```

(b)

```
SS 9/C?
USER:
"STOP"
PROG:
BEFORE STOPPING...
USER:
NO
SS 9/C?
USER:
```

(c)

```
"STOP"
PROG:
BEFORE STOPPING...
USER:
@
TIME 00:00....
USER:
YES
TIME 00:00....
PROG:
GOOD-BYE!
USER:
```

NEWS FILES, NLM/TSO

As pointed out in the April 1974 issue of the Technical Bulletin, users may now access the general News File while within NLM/ELHILL by entering the command "NEWS" after a USER: cue. An updated listing of the other News Files which are available from the NLM system under TSO follows.

TSO NEWS FILES:

LIST 'ACCESS'	-	List of News Files available
LIST 'PHONES'	-	List of Tymshare access numbers
LIST 'HOURS'	-	On-line Service Hours
LIST 'SUNY'	-	News specific to MEDLINE at SUNY
LIST 'NEWS'	-	General Notices (duplicated in ELHILL "NEWS")
LIST 'SERNEWS'	-	News specific to SERLINE
LIST 'ELHILL3'	-	News specific to ELHILL3
LIST 'TOXLINE'	-	News specific to TOXLINE

ACCESS PROCEDURE:

```
SS 1/C?
USER:
"QUIT"
READY
```

```
LIST '      '
READY              NOTE:  Users must return to ELHILL
ELHILL             before "STOPPING".
SS 1/C?
USER:
"STOP"
```

ELHILL 3, TESTING

NLM urges you to participate in the network testing of ELHILL3 now. ELHILL3 will be up at NLM Mon, Wed, Thurs and Fri from 11 a.m. to 1 p.m. ET. The data base in the citation file consists of citations from the Feb, March, Apr, and May 1974 issues of Index Medicus. There is a system limit of 50 simultaneous users for this test.

There will be no charge for connect time or off-line prints run under ELHILL3. Please participate in this test and report problems to MEDLARS Management.

To log in to ELHILL3, log in to NLM/MEDLINE in the usual way. When you receive the cue USER: enter "QUIT". When you receive the cue READY enter ELHILL3 without quotes. For a summary of the changes incorporated into ELHILL 3 see the Technical Bulletin for December 1973, pp. 10-17. The "MEDLARS II CAPABILITIES" listed on pages 17-18 are not yet available. For an on-line guide to available capabilities enter "EXPLAIN EXPLAIN". The LIST 'ELHILL3' News file under NLM/TSO may also be acessed for further instructions.

NEW DATA BASES, ELHILL3

Under ELHILL3, two other files are available for testing as well as the citation file. These are the 7-level MeSH vocabulary file and the Journal Authority file. When you log in to ELHILL3, you will automatically be in the citation file. To access one of the other files enter "FILE MESH" or "FILE JOURNAL". Once you have accessed one of these files enter "EXPLAIN UNIT RECORD" to find out about the contents of the file. To return to the citation file from either of the others enter "FILE CITATION". "TREE XXX" or "MESHNO XXX" will give you the 7 level MeSH numbers for a term. The 7-level trees must be used for explosions.

TOXLINE HOURS

TOXLINE hours of service on the NLM system will be as follows until further notice.

Mon, Wed, Thurs, Fri	-	9:00a.m. - 5:00p.m. (Eastern Time)
Tuesday	-	12:00p.m. - 10:00p.m. " "

SERLINE, 'ADDS' CAPABILITY

The capability of retrieving just the new SERLINE records on-line by entering the word ADDS, as mentioned in the March 1974 issue of the Technical Bulletin (page 8), is not available at this time.

REGION SEARCHING, SERLINE

The method described in the MEDLINE Reference Manual (p. 127) for searching all locations within a region is not valid for searching region 3 locations at the present time. Many newly assigned ISSNS for foreign titles begin with Ø3, and therefore this method will produce an OVERFLOW message.

For the time being, in order to search all the library codes in Region 3, the searcher must use the following search statement:

```
SS 1/C?
USER:
Ø3C# OR Ø3P# OR Ø3H# OR Ø3J# OR Ø3T#
```

The system will respond with a multi-meaning message for Ø3P# since several region 3 codes begin with the letter P. The user should then answer ALL. Once the above statement has been entered, it can of course be used in combination with other search statements. For example, to retrieve all IM titles without region 3 locator codes: the following search statement could be used:

```
SS 2/C?
USER:
IM (AI) AND NOT 1
```

This special procedure will not be necessary when SERLINE becomes available on ELHILL 3.

JOURNAL LISTING ERRATUM

The list of Index Medicus journals sent with the April Technical Bulletin containing ISSN's and Journal Title Codes (JTC) has one error in the collation of the pages. Page 63 of the listing should follow directly after page 59.

TYMSHARE TELEPHONE NUMBER ERRATA

In the March 1974 issue of the Technical Bulletin, p. 5, a new Tymshare node in Columbus, Ohio, is announced, but the number given is for the node in Freeport, Illinois. In the April 1974 issue, p. 5, a new Tymshare node is listed for Southbend, Indiana. The number listed is actually a second Tymshare number in Chicago, Illinois; there is no number available in Southbend, Indiana. The following are the correct numbers for these three Tymshare node cities:

Columbus, Ohio -	614/421-7270
Freeport, Illinois -	815/232-2181
Chicago, Illinois -	312/346-4961
	312/368-4607

NETWORK DEVELOPMENTS

Joseph Leiter, Ph.D.
Associate Director for Library Operations

Item 1: CHEMLINE

On May 6, the Chemical Dictionary File (CHEMLINE) became available on-line from the NLM computer for TOXLINE users.

Item 2: MEDLARS II Briefings

MEDLARS II briefings have been conducted at all eleven of the Regional Medical Libraries. If you were unable to attend on of these briefings, a makeup briefing, to be conducted by Mr. William H. Caldwell, has been tentatively scheduled from 10 a.m. to 3 p.m. on June 7, the day after the Medical Library Association Convention in San Antonio, Texas in Room 25 of the Convention Center. Please contact MEDLARS Management Section IMMEDIATELY if you would be interested in attending this makeup MEDLARS II briefing, so that final arrangements can be made.

Item 3: ELHILL 3

Effective May 21, there will be a change in the login procedure at NLM. This change is part of the transition from ELHILL 2 to ELHILL 3.

During this transition, some files will be run under ELHILL 2 and some under ELHILL 3. However, the user will not need to specify ELHILL 2 or ELHILL 3. Instead of being placed immediately within a specific file (such as MEDLINE) after logging in, you will instead be given a READY cue by the system.

At this point you should enter the name of the specific file you wish to access, without quote marks. If this file has been mounted under ELHILL 3, you will be connected to one of the ELHILL 3 files, not necessarily the one you have specified. You may then use the "FILE" command if necessary to switch to the specific file you wish to access. The same procedure will apply if you specify a file after the READY cue which has been mounted under ELHILL 2.

For example, here is an example of a login for a user going through the TYMSHARE network:

```
PLEASE LOG IN:  NLM or NLM2
PASSWORD:  XXX
;  MEDXXXXX or TOXXXXXX
XXXXX  LOGON IN PROGRESS ON ... etc.
READY
CATLINE
THIS TERMINAL IS CONNECTED TO THE SDILINE ... etc.
USER:
"FILE CATLINE"
```

Note: The login procedure will not change at SUNY.

USE OF THE TRUNCATION SYMBOL IN SHORTENING SEARCH TIME

Fred Heidenreich
MEDLINE Search Analyst, University of Arizona, Tucson

Here is a technique that can save time and effort on some searches, especially if the typing speed of the user has room for improvement. This technique is adaptable to both MEDLINE and SDILINE, but works best on SDILINE searches.

In searches requiring the application of many subheadings to one or more terms, the truncation symbol can be used to great advantage. If the truncation symbol is used in place of the last letter or two of the term, a multi-meaning message will result. This is followed by the number of variations (mainheading/subheading combinations) of the term in the Index file. If there are 5 or fewer, they will be printed out automatically. Otherwise, when the program asks: SEE? (YES/NO/ALL), reply YES. Then, after all the multi-meanings have been printed, specify only the numbers of the exact mainheading/subheading combinations desired.

Here is part of an actual SDILINE search, illustrating use of this technique:

Question: "I want references on immunologic deficiency diseases. (diagnostic and therapeutic aspects only, please). I am expecially interested in the Chediak-Higashi syndrome, agammaglobulinemia, lymphocytopenia, and phagocyte bactericidal dysfunction."

Search terms selected:

CHEDIAK-HIGASHI SYNDROME/DI
CHEDIAK-HIGASHI SYNDROME/DT
CHEDIAK-HIGASHI SYNDROME/TH
CHEDIAK-HIGASHI SYNDROME/SU
CHEDIAK-HIGASHI SYNDROME/RT
AGAMMAGLOBULINEMIA/DI
AGAMMAGLOBULINEMIA/DT
AGAMMAGLOBULINEMIA/TH
AGAMMAGLOBULINEMIA/SO
AGAMMAGLOBULINEMIA/RT
PHAGOCYTE BACTERICIDAL DYSFUNCTION/DI
PHAGOCYTE BACTERICIDAL DYSFUNCTION/DT
PHAGOCYTE BACTERICIDAL DYSFUNCTION/TH
PHAGOCYTE BACTERICIDAL DYSFUNCTION/SU
PHAGOCYTE BACTERICIDAL DYSFUNCTION/RT
LYMPHOCYTOPENIA/DI
LYMPHOCYTOPENIA/DT
LYMPHOCYTOPENIA/TH
LYMPHOCYTOPENIA/SU
LYMPHOCYTOPENIA/RT
IMMUNOLOGIC DEFICIENCY DISEASES/DI
IMMUNOLOGIC DEFICIENCY DISEASES/DT
IMMUNOLOGIC DEFICIENCY DISEASES/TH

```
IMMUNOLOGIC DEFICIENCY DISEASES/SU
IMMUNOLOGIC DEFICIENCY DISEASES/RT
```

Instead of entering each of the above search terms separately, try using the truncation symbol:

```
SS 1/C?
USER:
CHEDIAK-HIGASHI SYNDROM#  (CR)
PROG:
MM-MULTI-MEANING  (CHEDIAK HIGASHI SYNDROM#) - (6) TERMS
SEE?  (YES/NO/ALL)
USER:
YES
PROG:
    1 CHEDIAK-HIGASHI SYNDROME (MAIN HEADING)
    2 CHEDIAK-HIGASHI SYNDROME/BL (MAIN HEADING)
    3 CHEDIAK-HIGASHI SYNDROME/IM (MAIN HEADING)
    4 CHEDIAK-HIGASHI SYNDROME/TH (MAIN HEADING)
    5 *CHEDIAK-HIGASHI SYNDROME (MAIN HEADING)
    6 *CHEDIAK-HIGASHI SYNDROME/TH (MAIN HEADING)
SPECIFY NUMBERS, ALL, OR NONE
USER:
4, 6                      (CR)
PSTG (5)
SS 2/C?
USER:
AGAMMAGLOBULINEMI#        (CR)

. . . . . Etc. . . . . .
```

The above routine is 50% faster and leaves less room for error, though it may use slightly more paper. It saves the user from having to type the same term over and over.

This procedure will be further simplified with the implementation of the proposed "apply" command in ELHILL 3 (See Library Network/MEDLARS Technical Bulletin, December 1973, pp 10-18). Until then, try this method; you'll like it.

HEALTH CARE LEGISLATION: INDEXING and SEARCHING HINTS

Rosalie B. Biemans, R.N.
Index Section, NLM

In these days of expanding government involvement in health care provisions for the people, it becomes increasingly more confusing to keep up with the many legislative acts concerning these provisions. The health care literature has proliferated accordingly and the literature analyst is often left guessing as to the exact program an author is describing. This is especially difficult when the program under discussion is identified only by its P. L. (Public Law) number.

For example, P. L. 88-164 is Public Law 164 enacted by the 88th Congress in the 1963-1964 congressional time period. It is the Mental Retardation Facilities and Mental Health Centers Construction Act of 1963. It is now clear where to index or search for P. L. 88-164:

MENTAL RETARDATION
COMMUNITY MENTAL HEALTH SERVICES
FACILITY DESIGN AND CONSTRUCTION
FINANCING, GOVERNMENT
UNITED STATES

To aid the analyst, here follows a list of Public Laws concerned with health care provisions and instructions for indexing them. The analyst should keep in mind that each program must be identified by the geographic heading which is omitted here to save space.

PL 88-164 Mental retardation facilities and community mental health service construction

MENTAL RETARDATION (IM)
COMMUNITY MENTAL HEALTH SERVICES (IM)
FACILITY DESIGN AND CONSTRUCTION (IM)
FINANCING, GOVERNMENT (NIM)

PL 88-210 Vocational training act

VOCATIONAL EDUCATION (IM)
TRAINING SUPPORT (NIM)

PL 88-443 Hospital and medical facilities amendment: Hill-Burton program

HOSPITAL DESIGN AND CONSTRUCTION (IM)
HEALTH FACILITIES (IM)
FACILITY DESIGN AND CONSTRUCTION (IM)
FINANCING, GOVERNMENT (NIM)

PL 88-581 Nurse training act; facility construction program

SCHOOLS, NURSING (IM)
FACILITY DESIGN AND CONSTRUCTION (IM)
FINANCING, GOVERNMENT (NIM)

PL 89-15 Manpower development and training; on-the-job and institutional training

ALLIED HEALTH PERSONNEL/education (IM)
INSERVICE TRAINING (IM)
VOCATIONAL EDUCATION (IM)
TRAINING SUPPORT (NIM)

PL 89-97 MEDICARE if applicable
MEDICAID if applicable

PL 89-105 Amendment to PL 88-164 (see above)

PL 89-164 Amendment to PL 88-164 (see above)

PL 89-239 REGIONAL MEDICAL PROGRAMS

PL 89-415 Amendment to 89-15 (see above)

PL 89-749 Comprehensive health planning and partnership for health program

COMPREHENSIVE HEALTH PLANNING (IM)
FINANCING, GOVERNMENT (NIM)

PL 89-754 Demonstration cities and metropolitan development; mortgage insurance for group medical practice facilities

CITY PLANNING (IM) if applicable
URBAN RENEWAL (IM) if applicable
HOUSING (IM) if applicable
PUBLIC HOUSING (IM) if applicable
FINANCING, GOVERNMENT (NIM)

or GROUP PRACTICE (IM)
FACILITY DESIGN AND CONSTRUCTION (IM)
FINANCING, GOVERNMENT (NIM)

PL 89-792 Amendment ot PL 89-15 (see above)

PL 89-793 Narcotic addiction rehabilitation; support for addict after care

DRUG ADDICTION / rehab (IM)
AFTER CARE (IM)
FINANCING, GOVERNMENT (NIM)

PL 90-103 Appalachian regional development; demonstration health projects

COMMUNITY HEALTH SERVICES (IM) if applicable
HEALTH SERVICES (IM) if applicable
RURAL HEALTH (IM)
POVERTY (IM)
FINANCING, GOVERNMENT

PL 90-174 Amendment to PL 89-749 (see above)

PL 90-222 Economic opportunity amendment; neighborhood facilities grant

OEO (IM)
COMMUNITY HEALTH SERVICES (IM)

PL 90-248 Housing and urban development; neighborhood facilities grant program

HOUSING (IM) if applicable
PUBLIC HOUSING (IM) if applicable
COMMUNITY HEALTH SERVICES (IM) if applicable
HEALTH FACILITY PLANNING (IM) if applicable
FINANCING, GOVERNMENT (NIM)

PL 91-211 Federal funding of community mental health services for poverty areas

COMMUNITY MENTAL HEALTH SERVICES (IM)
POVERTY (IM)
FINANCING, GOVERNMENT (NIM)

PL 91-515 Amendment to PL 91-211 to prevent misuse of funds. Index as above.

PL 92-603 PROFESSIONAL STANDARDS REVIEW ORGANIZATIONS
Indexers type PSRO on data form.

PL 93-222 HEALTH MAINTENANCE ORGANIZATIONS

RETRIEVING A NEEDED CITATION BY STRINGSEARCH

Paul Hanson
Lane Medical Library, Stanford University Medical Center

It is often helpful to obtain from MEDLINE the terms indexers used to cover a particular article. This indexing suggests main headings, subheadings, and their coordination that may retrieve references to like literature. Usually the most rapid method for retrieving an individual citation relies upon an input of the author's name, perhaps qualified with a journal code, year of publication, or a main heading.

Yet it sometimes seems that authors' names which a patron cites are not reliable. If the name of the author was submitted in handwriting, one must be prepared to apply all one's genius for cryptography to differentiate between "a's" and "o's", "i's" and "e's", and other letters that may offer subtle or nonexistent cues for making a distinction.

A typed citation reduces the area for creative conjecture but doesn't guarantee that it has been copied faithfully. When I need the indexing to a paper that should be among the MEDLINE citations, and the computer's reply to my input of an author's name is a terse "no postings," I suspect the foul work of mistranscription.

There is a method of retrieving the desired information that is independent of such an unreliable element and of main headings as well. Here's the technic:

1. Obtain from SERLINE or MEDLINE Journals the journal code (JC) for the journal in which the cited paper was published.

2. Logically AND this code with the year in which the paper was published.

3. Perform a stringsearch upon the source field for the number of the page upon which the article begins. Remember that a stringsearch requires a minimum of three characters between both colons. If the page number consists of one digit, use this form : 1-: Two digits can be scanned to match a form like : 11-: Note that running a stringsearch against :11-: or : 11: introduces in each case an ambiguity. With a little thought, one can input just a few characters to effect a retrieval of a single citation. An example may help to illustrate this method.

Suppose that the indexing is desired for this citation: Gruzlica 39: 704-6 Jul 71. The List of Journals Indexed in Index Medicus furnishes the formal name for this abbreviated title: Gruzlica i choroby pluc. The key for searching this title in SERLINE is GRU/I/C/P. From SERLINE one then learns that the journal code is FUP. The MEDLINE search strategy proceeds:

```
SS  1/C?

USER:
FUP AND 71 THRU 71

PROG:
PSTG  (92)
SS  2/C?

USER:
TS (SO)  :704:

PROG:
(30)  RECORDS SEARCHED AND (0) QUALIFIED.  CONTINUE SEARCHING? (YES/NO)

USER:
YES

PROG:
(60)  RECORDS SEARCHED AND (1) QUALIFIED.  CONTINUE SEARCHING?  (YES/NO)

USER:
NO

PROG:
PSTG (1)
SS  3/C?

USER:
"PRT AU, TI, SO, MH"

PROG:

AU- FLEJSIEROWICZ Z
AU- MICHALOWICZ E
AU- SOSINSKI E
AU- ZIELESKIEWICZ M
TI- (VALUE OF PERCUTANEOUS NEEDLE BIOPSY IN THE DIAGNOSIS OF SOLITARY FOCI
    IN THE LUNGS)
SO- GRUZLICA 39 704-6 JUL 71
MH- BIOPSY/INSTRUMENTATION
MH- ENGLISH ABSTRACT
MH- HUMAN
MH- *LUNG/PATHOLOGY
MH- *LUNG DISEASES/DIAGNOSIS
MH- METHODS
MH- NEEDLES
SS  3 /C?
```

Editor's Note: Although Mr. Hanson's tip is an excellent way of utilizing STRINGSEARCH under ELHILL 2, it should be noted that the source field (SO) cannot be stringsearched under ELHILL 3. Instead, those wishing to follow Mr. Hanson's suggestion should STRINGSEARCH the Pagination field (PG).

MEDLINE TRAINEES AT NLM, APRIL 22, 1974

The seventeenth NLM MEDLINE Training Class was held April 22 - May 10, 1974. The following people attended:

Marilyn Grant	Boston College School of Nursing Library Chestnut Hill, Massachusetts
Mary Eileen Hickey	Veterans Administration Hospital Medical Library Hampton, Virginia
Christiane James	Keesler Air Force Base Medical Library Biloxi, Mississippi
Nora Jason	National Bureau of Standards Office of Information and Hazard Analysis Washington, D.C.
Carmella Logan	National Institutes of Health Division of Research Grants Bethesda, Maryland
Russell Murphy	University of Missouri at Kansas City Medical Library Kansas City, Missouri
Mary Ann Nowell	Veterans Administration Hospital Medical Library Kansas City, Missouri
Maria Helena Piegas	Biblioteca Regional de Medicina Sao Paulo, Brazil
Phyllis Rasnick	University of Maryland Health Sciences Library Baltimore, Maryland
Terry Ryan	Naval Regional Medical Center Medical Library Portsmouth, Virginia
Ofelia Sepulveda	Biblioteca Regional de Medicina Sao Paulo, Brazil

Sharon Shekha	University of Texas Health Sciences Center at Dallas Library Dallas, Texas
Betsy Stone	University of Tennessee Medical Units Library Memphis, Tennessee

MEDLINE TRAINEES AT UCLA, MARCH 27, 1974

The University of California Biomedical Library, Los Angeles held its twelfth MEDLINE Training Class March 27 - April 11, 1974. The following people attended:

Alison Bunting	UCLA Biomedical Library PSRMLS - ILL Los Angeles, California
Vincent Caccese	University of California, Irvine Physical Science Library Irvine, California
Dorothy Gregor	University of California, Berkeley Public Health Library Berkeley, California
Janet Hedlund	Los Angeles County/USC Medical Center Medical Library Los Angeles, California
Lisi Melkus	Alameda Contra Costa Medical Association Library Oakland, California
Jane O'Sullivan	Naval Regional Medical Center Medical Library Oakland, California
Evelyn Simpson	Santa Ana Community Hospital Medical Library Santa Ana, California
Pat Walter	UCLA Biomedical Library Brain Information Service Los Angeles, California
Elaine Wells	Memorial Hospital Medical Center Medical Library Long Beach, California

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of the

Library Component of the Biomedical Communications Network

No. 62 JUNE 1974

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U.S. DEPARTMENT OF HEALTH, EDUCATION, AND WELFARE
Public Health Service
National Institutes of Health

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of the
Library Component of the Biomedical
Communications Network

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The LIBRARY NETWORK/MEDLARS TECHNICAL BULLETIN
is issued monthly by the Office of the
Associate Director for Library Operations.

JOURNAL CITATION DATA BASES

These data bases continue to be structured as follows:
MEDLINE (under ELHILL 2 and ELHILL 3) contains all MEDLARS citations from January 1972 through July 1974 and must be searched with 1974 MeSH vocabulary. MEDFILE and COMPFILE contain citations from January 1970 through December 1973 and must be searched with 1973 MeSH vocabulary. MEDLINE and SDILINE were updated on May 13 and June 17 at NLM and SUNY. The sizes of the data bases are/were as follows:

MEDLINE	(Jan 72-July 74)	- 571,762
SDILINE	(June 74)	- 18,390
SDILINE	(July 74)	- 18,722
MEDFILE	(Jan 70-Dec 73)	- 533,035
COMPFILE	(Jan 70-Dec 73)	- 351,891

ON-LINE TECHNICAL NOTES

PLEASE QUERY THE NLM/ON-LINE NEWS FILES DAILY FOR SPECIAL NOTICES AND MESSAGES

NTIS PUBLICATIONS

The 1974 MEDLINE tools available from the National Technical Information Service (NTIS) were listed in the September 1973 issue of the Technical Bulletin, along with the source location. It is now possible to order these publications over the telephone. An extra charge of $.50 per item is added to orders which must be billed with the shipment. Institutions which have a deposit account or can charge their order to an American Express credit card number are not subject to the extra charge of $.50 per item. NTIS, however, would prefer to receive most orders prepaid by mail. Users who need to place orders by telephone should contact Mrs. Edith Toleman, 703/321-8543.

RADIOISOTOPES, EXPLOSIONS ELHILL 2

Due to an error in MEDLINE vocabulary 3,374 citations dealing with specific radioisotopes cannot be retrieved by exploding D1.33.42. There are, specifically, 3 citations to GOLD COLLOID, RADIOACTIVE; 125 citations to SERUM ALBUMIN, RADIO-IODINATED: and 3002 citations to TRITIUM which do not carry the MeSH tree number D1.33.42.1. If the user is interested in all radioisotopes, it is suggested that he use the search strategy: EXPLODE D1.33.42 OR GOLD COLLOID, RADIOACTIVE OR IODINE ISOTOPES, DIAGNOSTIC OR SERUM ALBUMIN, RADIO-IODINATED OR TRITIUM.

ADMINISTRATIVE DATA

MEDLARS MANAGEMENT SECTION maintains, on a computer file, administrative data such as names, addresses, and telephone numbers of users of NLM's computer system. This information is used for mailings, to contact individuals at the various institutions and to respond to queries. It is very important that this information be kept current. Please report to MEDLARS Management Section any changes in addresses, telephone or personnel.

OFF-LINE PRINTS, CANCELLING

At present, there is no mechanism for cancelling an off-line print once the message OFF-LINE PRINT COMPLETED has been received. Off-line prints are mailed the morning of the working day following the date of request.

You may abort an off-line print command during the typing of the name and address information by pressing the space bar and carriage return after one of the program cues. The program will then respond with the next Search Statement number (under ELHILL 3, the program will respond with the message OFF-LINE PRINT COMMAND HAS BEEN CANCELED, and the next Search Statement number).

```
PROG:
ADDRESS?--ENTER STREET ADDRESS.
USER:
(Press the space bar and a carriage return here.)
SS  /C?
```

PURCHASE ORDERS

Centers which have submitted purchase orders to Tymshare Inc. authorizing their institution to remit payments for on-line services should contact the issuing office to verify what period is covered by the current purchase order. Many PO's, especially those negotiated by Federal centers, expire at the end of the Federal fiscal year, June 30, 1974. If this is the case at your center, please have your purchase order amended or a new one negotiated and sent to Tymshare Inc. as soon as possible. MEDLARS Management Section keeps file copies of these purchase orders, and will make available expiration information upon request by the center.

NEWS FILES, NLM/TSO

It is now possible to determine the date on which any of the NLM/TSO News Files was last updated by "QUIT"ing from ELHILL on the NLM system, and entering LIST 'UPDATES' after the TSO READY cue.

```
SS 1/C?
USER:
"quit"
READY
list 'updates'
```

Each one of the TSO News Files will be listed along with the date it was last changed.

WATS LINE

Effective July 1, 1974 all users accessing the MEDLINE files via a toll-free WATS line assigned by the National Library of Medicine should be using the Chicago WATS telephone number. Letters to this effect were sent to all users in this category. If your center has been assigned a WATS line, but has not yet received notification of the new number, please contact MEDLARS Management Section (301/496-6193).

NODE ASSIGNMENT, WATS USERS

Centers acessing the MEDLINE files via the new WATS line in Chicago should use SUNY as their Primary Node. NLM and NLM2 should be used only when there is a need to access a file which does not reside on the SUNY system, or when a search must be run immediately and the SUNY system is not available. If the Alternate Node (NLM or NLM2) is used, you should return to the Primary Node (SUNY) as soon as possible.

CHANGING SYSTEMS, TYMSHARE USERS

If you log off of either NLM or SUNY, and you wish to switch to another system but do not receive PLEASE LOG IN: after the GOODBYE! message, press the carriage return and the login message should appear.

ARPA NETWORK

ARPA users are reminded that closing their ARPA circuit alone does not log them off MEDLINE/TSO. Each user should log off MEDLINE before closing the ARPA circuit. In the event you find yourself in the midst of a previous user's session after receipt of the OPEN message, you should immediately type "QUIT" (if not already in TSO) and then after the READY cue, type TIME, to get the previous users session time. If the session time is less than five minutes, the port should be immediately closed and attempts should be made to open another port. If the session is greater than five minutes the new user should immediately logon with his ID before interacting with MEDLINE/TSO. This will automatically log off the previous user and prevent any additional charges from being accrued.

2741 TERMINALS

Users with IBM 2741 type terminals will find that they will have difficulty accessing the NLM computer system if they do not have the Receive Interrupt feature on their terminal (the NLM system expects this feature on these terminals). A symptom of the lack of this feature is the dropping of part and sometimes complete system responses. Users should contact their IBM salesman concerning the field installation of feature number 4708 or its equivalent on their terminal to insure proper functioning.

MONOGRAPHS AND NOT SERIAL, CATLINE

It is possible to retrieve only monographs while searching in CATLINE by limiting the search with AND NOT SERIAL. CATLINE materials are separated into three item types: monographs, (which includes motion pictures and other audiovisual materials), serials, and technical reports. Serials and technical reports may be directly searched using the designation SERIAL or TRL. Monographic material is not directly searchable but can be retrieved using the Boolean AND NOT logic along with the other item types.

SS 1/C? USER: Heart diseases and serial PROG: PSTG (245)	Search to obtain serials in the data base.
SS 2/C? USER: Heart diseases and TRL PROG: PSTG (73)	Search to obtain technical reports in the data base.
SS 3/C? USER: Heart diseases and not serial and not TRL PROG: PSTG (1071)	*Search to obtain monographs in the data base.

*Note: Truncating the call number for all NLM serials (i.e., W1#) will produce an overflow message.

HOURS, COMPFILE AND MEDFILE

Effective June 24, 1974, COMPFILE will be available on Mondays and Wednesdays. MEDFILE will be mounted on Tuesdays, Thursdays and Fridays until ELHILL 3 is fully implemented. The hours of service for all files will remain the same at present.

RESTACK COMMAND

The RESTACK command under ELHILL 2 malfunctions at both NLM and SUNY, and should be avoided when possible. The problem will be fixed under ELHILL 3.

FTS LINES

The Federal Telephone System (FTS) lines are on a rotor but sometimes the whole group of numbers beginning with 301/496-xxxx is busy. In the case of busy numbers, you should simply redial the number.

Network Developments

Joseph Leiter, Ph.D.
Associate Director for Library Operations

Item 1: MEDLINE Analyst Meeting

As a result of the MEDLINE analyst meeting held at the MLA meeting in San Antonio, certain changes and clarifications have been made. For details of specific items, see Technical Notes, this issue, on:

1. Radioisotopes, Explosions, ELHILL 3
2. News Files, NLM/TSO
3. WATS Lines
4. Monographs and not Serials, CATLINE
5. Hours, COMPFILE and MEDFILE
6. Restack Command
7. FTS Lines

Item 2: MEDLARS Centers Meeting

A meeting of the MEDLARS Centers was held in Cologne, Germany on June 12 and 13. Technical developments and MEDLARS II progress and implementation were the main topics

Item 3: SUNY

The State University of New York (SUNY) has completed its move to a new computer facility. The 370/158 has been installed and is fully operational.

Item 4: WATS Users

WATS users in the states of Arizona, California, Idaho, Illinois, Nevada, Oregon, Utah, and Washington do not have access to the Tymshare WATS lines which are based in Chicago because of telephone zone restrictions. WATS users in these states should continue to use the original WATS line assigned by NLM. In July, the Chicago WATS lines will be relocated and the zone restrictions will no longer apply. Further information will be provided to WATS users as soon as it is available. Reminder: Wats lines are to be used for MEDLINE and related files only -- not TOXLINE, CHEMLINE or MEDLEARN.

SEARCHING MEDLINE UNDER ELHILL 3: SOME PARTICULARS TO BE NOTED

P.E. Pothier
MEDLARS Management Section, NLM

Although most aspects of searching MEDLINE are the same whether the data base is accessed under ELHILL 2 or ELHILL 3, there are some differences and added capabilities in ELHILL 3 with which the user should be familiar. This article will attempt to summarize these. For a general overview of ELHILL 3, see ELHILL 3: A Preview by D. Kenton and W.H. Caldwell (Technical Bulletin Dec. 1973, pp. 10-18).

LOGIN PROCEDURE

In the initial phase of conversion to MEDLARS II, MEDLINE will run under ELHILL 3, while SDILINE, CATLINE, SERLINE, COMPFILE, MEDFILE, TOXLINE, and CHEMLINE will continue to run under ELHILL 2. It is therefore necessary to follow a different login procedure depending on whether one wishes to access MEDLINE or one of the other files. All users will be first logged into the operating system, TSO, which will give them the cue READY. At this point, the user must enter MEDLINE, if he wishes to access MEDLINE, and ELHILL if he wishes to access any of the other files. Once the user is in a file, he may change files in the usual way by issuing the "FILE _____" command, but only if he wishes to change to a file operating under the same version of the ELHILL program. For instance, if the user has responded to the READY cue with MEDLINE, he may issue the commands "FILE MESH" or "FILE JOURNAL", but he may not issue the command "FILE CATLINE". If he wishes to switch from MEDLINE under ELHILL 3 to CATLINE (under ELHILL 2), he must first issue the command "QUIT", wait for the cue READY, enter ELHILL, and then, after receiving the cue USER, enter the command "FILE CATLINE".

VOCABULARY

ELHILL 3 MEDLINE uses the MeSH vocabulary structured in 7 levels instead of 4. Since the 7-level tree structures have not yet been published, the user must never attempt an explosion without first issuing the "MESHNO _____" or "TREE _____" command.

Moreover, ELHILL 3, unlike ELHILL 2, does not yet automatically truncate search terms longer than 36 characters. If the user enters UNITED STATES NATIONAL LIBRARY OF MEDICINE, he receives a No Postings message, but if he enters UNITED STATES NATIONAL LI: he will receive postings. (This situation is temporary, since it is due to a program error which will be corrected).

If a MeSH term is hyphenated, e.g., HEMOLYTIC-UREMIC SYNDROME, it may be searched with or without the hyphen, but it may not be searched with a blank in place of the hyphen. E.g.:

HEMOLYTIC-UREMIC SYNDROME

or

HEMOLYTICUREMIC SYNDROME

but not

HEMOLYTIC UREMIC SYNDROME

In the display resulting from the "NEIGHBOR ____" command the term will appear as HEMOLYTICUREMIC SYNDROME, even though in the printed MeSH the term appears as HEMOLYTIC-UREMIC SYNDROME.

EXPLOSIONS

Explosions in ELHILL 3 MEDLINE may be preceded with an asterisk if the user wishes to retrieve only citations in which the exploded terms are central concepts. e.g.:

EXPLODE *D3.605.869.189.297

THE "TREE _____" COMMAND

Since most terms appear in more than one place in the 7-level trees, the "TREE _____" command almost invariably results in a Multi-meaning message showing the different tree numbers attached to the term. The proper response to the Multi-meaning message is ALL, since different terms are indented under the term at its various locations, and the user cannot decide on the proper explosion unless he knows which set of indented terms he prefers.

Moreover, the user must remember that the trees display only the term, its parent term, and one level of indented terms. If an indented term has further terms indented under it, it will be followed by an asterisk in the display. The user must then TREE that term in order to see the next level of indention. This process may have to be repeated several times before all indentions have been displayed for each term in the tree.

SUBHEADINGS

In ELHILL 3 subheadings may be searched by themselves, attached to main headings or explosions, or applied to main headings or explosions.

If a subheading is searched alone, it should be searched in the abbreviated form because those subheadings which are also main headings default to main headings, and the category qualifier (SH) may not be used. e.g :

LIVER FUNCTION TESTS AND PO

A subheading may be attached to an explosion with or without a central concept indicator, e.g.:

EXPLODE *D2.705/po

The "SUBHEADINGS APPLY _____" command must incorporate the subheadings which are to be applied to subsequent search statements. The subheadings are part of the command and included within the quotes. e.g.:

"SUBHEADINGS APPLY AE, PO, TO"

SUBHEADINGS APPLY does not use up a search statement number. It remains in effect until it is cancelled or a new SUBHEADINGS APPLY command is issued, even if the "ERASEBACK", "RESTACK" or "FILE _____" commands are issued. Changing files does not cancel applied subheadings, although the "RESTART" command does. "SUBHEADINGS CANCEL" cancels applied subheadings. "SUBHEADINGS DISPLAY" allows the user to see which subheadings are still in effect. If the user receives no postings for a term or statement which he believes reasonably should have postings, the first thing he should check is whether he has failed to cancel applied subheadings.

In the printed unit record, an asterisk preceding a subheading indicates that the citation appears in Index Medicus under the main heading with the asterisked subheading.

THE MULTI-MEANING MESSAGE

In ELHILL 3, 10 or fewer meanings are automatically displayed, and the user may search them by number. However, if the term has more than 10 meanings, the user no longer has the SEE? option. The Multi-meaning message simply asks ALL OR NONE? If the user wishes to see all the alternatives, he may use the "NEIGHBORDET _____" command.

TRUNCATION

The truncation symbol in ELHILL 3 is the colon and stands for any number of characters. It may be used in the middle of a term or at the end of a term. Entering a truncation symbol in the middle of a term is useful if one does not remember whether the term is one word or two words or if the term may be spelled in various ways, e.g.: DIMETHYL:SUL:OXIDE. The colon, unlike the hash mark (#), can substitute for the absence of a character as well as for one or more characters. At the end of a term the colon is used in the same way as the hash mark was used in ELHILL 2. The hash mark can still be used, but it will only replace a single character.

ENTRY DATES

The entry date field may be searched alone in the format YYMMDD, or it may be ANDed with a search statement in a ranging statement, e.g.:

ASPIRIN AND FROM 740411 TO 740507
ASPIRIN AND GREATER THAN 740411
ASPIRIN AND LESS THAN 740507

Entry dates in a ranging statement are inclusive. That is, citations entered into the system on the dates specified in a ranging statement are also retrieved.

PUBLICATION YEAR

Publication year may be ANDed with a search statement, e.g., ASPIRIN AND 73, but it cannot be included in a ranging statement. The statement 72 THRU 73 is no longer valid. Individual years of publication must be entered separately and the results ORed together. Searches on year of publication will be very time consuming and will usually take several Time Overflows to complete.

PERSONAL NAMES

If the name of an author or biographee is hyphenated, e.g., GRAFF-WROBLEWSKA T, it may be searched either in the hyphenated form or without the hyphen, but a blank may not be substituted for the hyphen.

In stringsearching for a personal name, as in an eponymous syndrome, the user must remember that diacritical marks are included in the record. However, since they can neither be input nor printed out on a terminal, they must be accounted for in stringsearching by entering a colon before the modified letter. For example, if the user was searching for Schönlein-Henoch syndrome, he would enter PURPURA AND RHEUMATISM and stringsearch the result for :SCH:O:NLEIN:. In this example the searcher has used two medial colons because the name could be spelled SCHÖNLEIN or SCHOENLEIN. (However, the user should always use colons within a term with caution. :SCH:O:NLEIN: could also retrieve a title like - 'SCHOOL HEALTH IN MANNLEIN.')

LANGUAGE

All languages must be searched in the form of 3-letter abbreviations, e.g., ENG. The abbreviation FOR will retrieve all foreign language citations, but the term FOREIGN does not appear in the unit record.

CITATION NUMBER

Citation numbers consist of 8 digits, of which the two left-hand digits represent the year of entry of the citation into the system. E.g.: 74117824. The citation number is both searchable and printable, but the two-letter category qualifier has been changed from AN to CN. Citation numbers are also rangeable, but must be followed by the category qualifier.

JOURNAL SEARCHING

Individual journals may be searched in any of three ways: by journal title abbreviation, by journal title code or by ISSN.

If the journal title abbreviation contains the abbreviation EXP (for EXPERIMENTAL, etc.), this must be disguised with the hash mark; otherwise the program will interpret it as the abbreviation for EXPLODE. E.g.:

EX# EYE RES.

Journal title codes will be retained on the file until all the journals in the data base have been assigned ISSNs.

Those journals which do not currently have ISSNs have been assigned dummy ISSNs constructed from the letter D, the 3-character JTC, and 4 zeros. Thus ISSNs such as D9PK-0000 will occasionally appear in the unit record.

The journal subset tags, e.g., M for MEDLINE or A for AIM, are single characters and are searchable. Special list indicators, such as SPECIAL LIST NURSING, are also searchable by entering the full term in a search statement as in ELHILL 2.

The place of publication of a journal (all countries and the states of the U.S.) is searchable, but it is not possible to EXPLODE on a place of publication classification number directly. Instead one must use this format: ALL Z1. 252.474: (PN). This would retrieve all articles published in the Far East. Note that the qualifier (PN) must be used or the program will default to the MeSH class number for geographic terms. Also, the period after the last part of the number (474) is not included in the search statement, but a colon is.

Since the source field (SO) is a composite of the title abbreviation, volume, issue, pagination, and publication date fields, it cannot be stringsearched. The same is true for the Citation Identifier (CI).

THE "NEIGHBORDET" COMMAND

The "NEIGHBORDET" command (or "NBRDET") produces a display of all the different ways in which a heading has been used, i.e., IM, NIM, and with all the subheadings that have been used with the term. It is useful when the multimeaning message indicates more than 10 meanings, and one wishes to see them.

"PRINT" COMMANDS

ELHILL 3 has three standard print commands: "PRINT" (or "PRT"), "PRINT FULL" (or "PRT FU"), and "PRINT DETAILED" (or "PRT DL"). "PRINT TRIAL" no longer exists. "PRINT" causes the author(s), title, and source to be printed. "PRINT FULL" causes the author(s), title, source, language, main headings and citation identifier to be printed. "PRINT DETAILED" causes all printable categories of the unit record to be displayed. On-line, all "PRINT" commands will display 25 lines plus the number of lines necessary to complete the citation being printed at the 25th line, unless you explicitly ask for fewer unit records. The number of citations that may be printed off-line with one "PRINT" command remains 300.

TIME SLICING

In ELHILL 3 each user is allotted a quantum of time, the length of which varies depending on the number of users on the system. When the user's quantum of time runs out, he receives a Time Overflow message which asks him whether or not he wishes to continue. If he opts to continue, he is placed in a queue and the processing of his query will continue in the next available quantum of time. Lengthy operations, such as truncation, explosion, ranging, and stringsearching, are the ones most likely to cause time overflows. Stringsearch will no longer process 30 records at a time. Instead, the system will process as many records as possible in the available quantum of time. Usually many more than 30 records will be scanned before the user receives the message:

(X) SEARCHED (X) QUALIFIED. CONTINUE SEARCHING? (YES/NO)

ENTRY DATE SEARCHING

Ester Wei
Health Science Library, Ohio State University

In the usual course of events, one almost never has occasion to search on entry dates. But what with one thing after another, our recurring searches for April did not get done. When our secretary, tried to finish them on April 18, she found that SDILINE had been updated for May. In response to our cry for help, MEDLARS Management called and suggested that we search on entry dates in MEDLINE. The entry dates could be ORed together and the total number of citations for April would be 18,420. We were told that April SDILINE consisted of approximately 2 weeks of input - from Friday, February 22 to March 8, another Friday.

It has turned out to be a relatively simple procedure. To retrieve February's input I had intended to enter 74022# AND NOT 740220 AND NOT 740221, but the multimeaning message I got back shows 74022# was the only input needed. The March 1-8 input could also be covered by typing in only 74030#. Therefore the statement 74022# OR 74030# ANDed with any formulation gave us the retrieval for the April 1974 SDILINE.

```
SS  1/C?

USER:
74022#

PROG:

MM  (74022#)  (5)
          1  740222 (ENTRY DATE)
          2  740225 (ENTRY DATE)
          3  740226 (ENTRY DATE)
          4  740227 (ENTRY DATE)
          5  740228 (ENTRY DATE)
SPECIFY NUMBERS, ALL, OR, NONE-

USER:
ALL

PROG:

PSTG (9263)
SS  2/C?

USER:
74030#
```

```
PROG:

MM  (74030#)  (5)
          1  740302  (ENTRY DATE)
          2  740305  (ENTRY DATE)
          3  740306  (ENTRY DATE)
          4  740307  (ENTRY DATE)
          5  740308  (ENTRY DATE)
SPECIFY NUMBERS, ALL, OR, NONE-

USER:
ALL

PROG:

PSTG (9157)
SS  3/C?

USER:
1 OR 2

PROG:

PSTG (18420)
SS  4/C?
```

With ELHILL 3 most of our problems would have been resolved even earlier. In fact, the ranging capability FROM_____TO_____ would seem made to order.

Since we had to do all our unfinished recurring searches on MEDLINE, over half of the searches had to be reformulated because the SDILINE formulations would not be acceptable on MEDLINE. When overflow messages occurred, I exploded on partials and ORed single terms, usually ANDing each portion with a significant statement or entry dates to keep the tallies down. I also used the "RESTACK" command several times in each of these searches to keep our temporary workspace on the computer clear of extraneous citations. However, these measures did not always work; for example, I had to change the search formulation to AND ANIMAL EXPERIMENTS instead of trying to get the equivalent of AND EXPLODE B2.72 (mammals).

When the differences in the capabilities of the SDILINE and MEDLINE were reflected in the recurring search formulations, modifications of the search formulation were usually indicated. These ranged from minor changes such as attaching separate subheadings individually to a reasonable number of main headings for a more specific search, to the more drastic departure of not applying subheadings at all, resulting in a somewhat broader search. On the whole, the number of citations we received for each search seemed to be within normal range when compared to retrieval for previous months.

VIDEO TAPE -- PRINCIPLES OF INDEXING

Laura Eisenberg
Bibliographic Services Division, NLM

A color video tape on the PRINCIPLES OF INDEXING is now available upon request. The tape is 86 minutes long, in two parts, and features Thelma Charen, an indexer at NLM. Mrs. Charen discusses the principles of indexing journal articles for input to the MEDLINE data base, and the application of these techniques to searching. An 18-page printed syllabus is provided with the tape. The presentation is directed toward librarians, library technicians, and health professionals who wish to gain a broader understanding of the MEDLARS system to thereby increase their proficiency in the use of its printed and computerized products.

Copies of this tape may be obtained without charge, by providing blank video tape (cassette or reel-to-reel) as indicated in the order information below. PRINCIPLES OF INDEXING is not available on 16 mm film at this time.

TITLE: PRINCIPLES OF INDEXING (including printed Syllabus)

ACCESSION #: V3130-X (Specify PARTS I and II)

TAPE REQUIRED:
2 blank Video Cassettes, 3/4", 60 minutes in length each
or
1 blank Video Cassette, 3/4", 60 minutes in length and
1 blank Video Cassette, 3/4", 45 minutes in length
or
Video tape, reel-to-reel, 1", 90 minutes in length

ADDRESS REQUEST TO:
Video Duplicating Services
National Medical Audiovisual Center
1600 Clifton Road, N.E.
Atlanta, Georgia 30333

A 23-minute video tape on MEDLINE, which includes an on-line sample search, is also available from NMAC. It may be obtained from the same address, without charge, but the requestor must provide a blank Video Cassette, 3/4", or blank Videotape, reel-to-reel, 1", 30 minutes in length. Be sure to specify Accession # V3008-X. (A more complete description of this presentation appeared in the April 1974 issue of the Technical Bulletin on page 2.

THE INTERNATIONAL STANDARD BOOK NUMBER (ISBN) IN CATLINE

Lillian Kozuma
Technical Services Division, NLM

The International Standard Book Number (ISBN) has been created by the International Standards Organization (ISO) to uniquely identify a title or an edition of a title from a specific publisher. The ISBN is assigned on an international basis and a new number is assigned to any piece with a new title, new edition, different imprint or a different format (hardback or paperback, etc.).

The ISBN is a thirteen character string consisting of ten (10) digits and three (3) hyphens which separate the number into four sub-elements:

1) The group identifier appears before the first hyphen and identifies a country, language or geographical area.

2) The publisher identifier appears between the first and second hyphens and identifies a specific publishing group.

3) The title identifier appears between the second and third hyphens and identifies the specific title as a unique entity.

4) The check digit appears after the third hyphen and is used by the computer to verify the correctness of the assignment of the previous sub-elements.

The ISBN is searchable on CATLINE by simply inputting the 13 character string of digits and hyphens. Note that the # sign is no longer necessary at the end of the ISBN.

```
SS 1/C?

USER:
0-226-13481-4                    (CR)

PROG:

PSTG (1)
```

You may notice that some publications contain more than one ISBN on the piece. In these cases, each ISBN is usually modified by place of publication or format of publication. NLM cataloging policy follows generally accepted standards by only picking up the particular number which directly matches the imprint and/or format of the piece which is being cataloged. Alternate ISBNs for different imprints or formats will not be included in the cataloging copy. Specifically, if NLM is cataloging a hardback version of a book, only the ISBN for the hardback version will be carried on the cataloging copy. If your library owns the paperback edition, you will not retrieve a posting if you enter the paperback

version's ISBN into CATLINE. In this case, search CATLINE by the author and/or title elements for retrieval of the cataloging data for the hardback edition, and make any necessary corrections in the descriptive cataloging from your paperback edition in hand.

MEDLARS INDEXING MANUAL REVISION: ATOMIC WEIGHTS OF ELEMENTS AND THEIR ISOTOPES

ERRATUM

On page 10 of the April 1974 issue of this Technical Bulletin we announced the availability of a chart addendum to the MEDLARS INDEXING MANUAL.

There is an error on the second page of the chart (Manual page Category D - 15 e-2) showing wrong indexing instructions for cerium and cesium. Please use the legend below to cut and paste over your manual sheet.

Cerium (Ce)	140	CERIUM
	136, 138	CERIUM ISOTOPES
	131-135, 137-139, 141-148	CERIUM ISOTOPES + RADIOISOTOPES
Cesium (Cs)	133	CESIUM
	123, 125-132, 134-145	CESIUM ISOTOPES + RADIOISOTOPES

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LIBRARY NETWORK/MEDLARS TECHNICAL BULLETIN

of the

Library Component of the Biomedical Communications Network

No. 63 JULY 1974

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The LIBRARY NETWORK/MEDLARS TECHNICAL BULLETIN is issued monthly by the Office of the Associate Director for Library Operations.

JOURNAL CITATION DATA BASES

NLM/MEDLINE contains citations from Janua 1972 through August 1974. SUNY/MEDLINE contains citations from January 1972 through July 1974. (There is not room for additional citations in the SUNY/MEDLINE data base until ELHILL 3 is installed sometime in August.) MEDFILE and COMPFILE contain citations from January 1970 through December 1973 and must be searched with the 1973 MeSH vocabulary. SDILINE was updated at NLM and SUNY on July 22, 1974. The sizes of the data bases are as follows:

NLM/MEDLINE	(Jan 72 - Aug 74)	- 590,907
SUNY/MEDLINE	(Jan 72 - July 74)	- 571,762
SDILINE	(Aug 74)	- 19,145
MEDFILE	(Jan 70 - Dec 73)	- 533,035
COMPFILE	(Jan 70 - Dec 73)	- 351,891

ON-LINE TECHNICAL NOTES

PLEASE QUERY THE NLM/ON-LINE NEWS FILES DAILY FOR SPECIAL NOTICES AND MESSAGES

Demonstration Codes — A limited number of free access codes are available upon request for users who are giving group demonstrations of NLM's on-line systems. These codes, usually assigned for 24 hour periods, are not to be used for training in-house staff, or for demonstrations to in-house personnel but rather are reserved for major demonstrations to non in-house groups. Please contact MMS to request a demonstration code. A "second" password, which is changed monthly, is needed to login with a demonstration number. You will be supplied with this password at the time you request the demonstration code.

ELHILL 3 — On June 24, 1974, MEDLINE, the JOURNAL AUTHORITY FILE, and the MESH VOCABULARY FILE, became available under the ELHILL 3 programs on a full time basis. Use of these files under ELHILL 3 will now be charged against each user's account for billing purposes. As these are new versions of the ELHILL programs, users may experience some difficulty during the transition period. Please report all problems to MEDLARS Management Section.

MEDFILE HOURS — MEDFILE will be available through the NLM system on Tuesday, Thursday, and Friday until further notice.

COMPFILE HOURS — COMPFILE will be available through the NLM system on Monday and Wednesday until further notice.

NETWORK DEVELOPMENTS

Joseph Leiter, Ph.D.
Associate Director for Library Operations

Item 1: New SUNY TYMCOM

A second TYMCOM (TYMSHARE COMmunicator which is an interface from the host computer to the communications network) is scheduled to be added to the SUNY system by the end of July. This TYMCOM will provide initially nine additional lines to the SUNY Computer.

In order to ensure an equitable distribution of users on both the NLM and SUNY computer, we are requesting users to follow the node assignments listed below:

	PRIMARY NODE	ALTERNATE NODE
TYMSHARE users accessing MEDLINE and/or SDILINE	SUNY or SUNY2	NLM or NLM2
TYMSHARE users accessing TOXLINE, SERLINE, COMPFILE, CATLINE, MEDFILE	NLM	NLM2
WATS line users	SUNY or SUNY2	NLM or NLM2

If your Primary Node is SUNY, and you are accessing one of the files not residing on the SUNY system, you should return to SUNY as soon as possible after you have completed your searching in that file. If you have searches which must be run immediately, and SUNY/SUNY2 is your Primary Node, but is not available, you may use the NLM/NLM2 system, but the search session should be as short as possible.

Direct dial users are automatically routed to the NLM computer. If the direct dial numbers are busy and TYMSHARE must be used, use SUNY as the first choice. All Federal users should call direct to NLM, not through the TYMSHARE network. The direct dial FTS Number is 301/496/1994, 5, 6. Federal users who do not have access to FTS should call the nearest/least expensive TYMSHARE node, and should use the SUNY computer as their Primary Node. Finally, Federal users in the Washington, D.C. metropolitan area should call direct to NLM and not use the FTS numbers. Note that 654-2687 as well as 654-7722 is available for 30 character, ASCII, direct-dial users.

Item 2: Interim 1974 MeSH, and Tree Structures

In October 1974, NLM plans to publish an interim MeSH which will consist of 1974 terms plus approximately 175 new terms. The MeSH will not be annotated but will include entry terms and minor descriptors (some of which were previously provisionals and/or

cross-references). This MeSH will include the seven-level tree numbers.

At the same time, a seven-level Tree Structure will be published as a companion to the Interim MeSH. It, too, will include the approximately 175 additional MeSH headings mentioned above. Both the Interim MeSH and Tree Structures will be available from NTIS. Specific information regarding date available, PB number and cost will be announced when available.

Item 3: Tymshare Nodes:

New Node:
Kansas City, Mo. 816-421-3835

Tymshare Changes:
The Midland, Texas node has been upgraded from 10 to 30 characters per second.

The number of the Atlanta, Georgia node has been changed to 404/875-4461.

ANNOTATED BIBLIOGRAPHY ON ZOONOSES AVAILABLE

Roger Gilkeson
Office of Inquiries and Publications Management, NLM

A selective, annotated bibliography on zoonoses, (diseases naturally transmissible between vertebrate animals and man) has been prepared by Fritz Gluckstein, D.V.M. Coordinator for Veterinary Affairs, NLM. It includes citations to monographic literature from 1965 through 1973 and serial literature from 1970 through 1973.

Single copies are available without charge from the Literature Search Program, Reference Section, National Library of Medicine, 8600 Rockville Pike, Bethesda, Maryland 20014. The name and address of the requestor, typed on a gummed label, must accompany all requests. No return postage is necessary.

COMPARISON OF ELHILL 2 AND ELHILL 3 PROGRAM FEATURES

Gary Byrd
MEDLARS Management Section, NLM

The chart below compares seventeen features of the old ELHILL 2 and new ELHILL 3 programs. Most of these features were discussed in some detail in the article on 'Searching MEDLINE Under ELHILL 3' in the June 1974 issue of the Technical Bulletin (pp. 7-11). The chart is a quick summary of program features which have changed, and should help to clarify the current changes.

Program Feature	ELHILL 2	ELHILL 3
Data bases supported	SDILINE COMPFILE MEDFILE SERLINE CATLINE TOXLINE CHEMLINE	MEDLINE JOURNAL AUTHORITY FILE MESH VOCABULARY FILE
Truncation and variable character symbols	# - for single characters and right continuing strings.	# - for single characters only. : - for multiple characters and for right continuing strings.
Languages	Spelled out in full: ENGLISH GERMAN FOREIGN	Abbreviated to 3 letters: ENG GER FOR
Standard "PRINT" commands	Default is 2 or 5 records "PRINT" "PRINT TRIAL" "PRINT FULL"	Default is 25+ lines "PRINT" "PRINT FULL" "PRINT DETAILED"
Year of publication	AUTISM AND 72 THRU 72 AUTISM AND 71 THRU 73	AUTISM AND 72 AUTISM AND 71 OR AUTISM AND 72 OR AUTISM AND 73
Entry dates	7404#	7404: FROM_____TO_____ GREATER THAN_____ LESS THAN_____

Program Feature	ELHILL 2	ELHILL 3
MeSH class numbers	May be located in printed MeSH tools, or by using the "MESHNO" or "TREE" commands on-line.	Must be located by using the "MESHNO" or "TREE" commands on-line, **until** the new trees are published.
Total number of search statements allowed	16	25
Vocabulary	4-level trees	7-level trees
Long or complicated searches	Should be avoided, will delay other on-line searchers.	Will be "time sliced" and interrupted with a TIME OVERFLOW message.
Stringsearching	30 records at a time.	Time sliced, up to 200+ records at a time.
Subheadings	Must be attached to Main Headings (/); may not be attached to explosions.	May be searched alone or "applied" with a "SUBHEADINGS APPLY" command; may also be attached to Main Headings and explosions (/).
A multi-meaning message with more than ten (10) terms.	SEE? (YES/NO/ALL)	ALL OR NONE? (cannot display more than ten meanings)
Display of the index	"NEIGHBOR"	"NEIGHBOR" "NEIGHBORDET"
Searching on a subset of MEDLARS journals	AIM (JC) - for the 100 journals in Abridged Index Medicus. MED (JC) - for the approximately 1100 journals which formerly constituted the entire MEDLINE data base. (In SDILINE only.)	A (SB) - for the 100 journals in Abridged Index Medicus. M (SB) - for the approximately 1100 journals which formerly constituted the entire MEDLINE data base.

Program Feature	ELHILL 2	ELHILL 3
End of an off-line "PRINT" command	OK? (YES/NO) YES - All address information, etc. is correct; the results will be stored and mailed the next day. NO - Address information, etc. is not correct. The program will prompt for this information again.	OK? (YES/NO/CANCEL) YES - All address information, etc. is correct; the results will be stored and mailed the next day. NO - Address information, etc. is not correct. The program will prompt for this information again. CANCEL - The off-line printout will be completely canceled. The program will prompt again for SS X /C?
Biographees	In Author (AU) field, searched with opening paren: (SHAKESPEARE W#	In Subject as a Name (SU) field, searched with the category qualifier: SHAKESPEARE W: (SU)

MEDLARS II TREES: LIST OF SUBCATEGORIES

Thelma Charen
Index Section, Bibliographic Services Division, NLM

The June Technical Bulletin carried an article by P.E. Pothier on SEARCHING MEDLINE UNDER ELHILL 3. The section on vocabulary refers to 7-level Trees and their use.

Under MEDLARS II Indexers will no longer use the categorized lists from the black-and-white MeSH but will use the same 7-level Trees used by Searchers.

In the interests of easy memorization - always a desideratum in saving precious time - both Indexers and Searchers might want a new list of the subcategories.

The Trees were expanded by the creation of new and more specific subcategories, gathering together related subjects in more discrete and cohesive groups for both Indexers and Searchers.

I have labeled some subcategories as new and in other instances have given in parentheses the number where the new subcategory was formerly located in the MEDLARS I Trees. The list of subcategories is printed below for your ready reference.

A 1 - Body regions
2 - Musculoskeletal system
3 - Digestive system
4 - Respiratory system
5 - Urogenital system
6 - Endocrine system
7 - Cardiovascular system
8 - Nervous system
9 - Sense organs
10 - Tissue types
11 - Cells
12 - Fluids and secretions
13 - Animal terms
14 - Mouth and teeth (new; A3)
15 - Hemic and lymphatic systems (new; A7, A11 passim)
16 - Embryonic structures (new; A10)

B 1 - Invertebrates
2 - Vertebrates
3 - Bacteria
4 - Viruses
5 - Plants, lower
6 - Plants

C 1 - Bacterial and fungal diseases
2 - Rickettsial and viral diseases (new; C1)
3 - Parasitic diseases (new; C1)
4 - Neoplasms (C2)

5 - Musculoskeletal diseases (C3)
6 - Digestive system diseases (C4)
7 - Mouth and tooth diseases (new; C4)
8 - Respiratory tract diseases (C5)
9 - Otorhinolaryngologic diseases (new; C5, C11)
10 - Nervous system diseases
11 - Eye diseases (new; C11)
12 - Urologic diseases (new; C6)
13 - Gynecologic and obstetrical diseases (new; C6)
14 - Cardiovascular diseases (C8)
15 - Hemic and lymphatic diseases (C9)
16 - Neonatal diseases and abnormalities
17 - Skin diseases (C12)
18 - Nutritional and metabolic diseases (C13)
19 - Endocrine diseases (C7)
20 - Immunologic diseases (new; C14)
21 - Injury, occupational diseases, poisoning (C14)
22 - Animal diseases (C15)
23 - Symptoms and general pathology (C17)

D 1 - Inorganic chemicals
2 - Organic chemicals
3 - Heterocyclic compounds (new; D2)
4 - Polycyclic compounds (new; D2)
5 - Environmental pollutants (new)
6 - Hormones, substitutes and antagonists (D8)
7 - Reproductive control agents (new)
8 - Enzymes, coenzymes and enzyme inhibitors (D9)
9 - Carbohydrates and hypoglycemic agents (D11)
10 - Lipids and antilipemic agents (new; D11)
11 - Growth substances, pigments and vitamins (new)
12 - Amino acids, peptides and proteins (D10)
13 - Nucleosides and nucleotides (new; D10)
14 - Central nervous system depressants (new; D6)
15 - Central nervous system agents (new; D6)
16 - Autonomic drugs (D5)
17 - Neuromuscular agents (new; D5)
18 - Cardiovascular agnets (new; D5)
19 - Hematologic, gastric and renal agents (new)
20 - Anti-infective agents (D3)
21 - Antiparasitic agents (D3)
22 - Antineoplastics, immunosuppressive agents (D4)
23 - Antiemetics, antihistaminics (D6)
24 - Immunologic and biologic factors (D12)
25 - Biomedical and dental materials (new)
26 - Miscellaneous drugs and agents (D13)

E 1 - Diagnosis
2 - Therapeutics
3 - Anesthesia and analgesia
4 - Surgery, operative

5 - Miscellaneous technics
6 - Dentistry
7 - Equipment and supplies (new)

F 1 - Behavior and behavior mechanisms
2 - Psychological processes and principles (F1)
3 - Behavioral and mental disorders (F2)
4 - Disciplines, tests, therapy, services (F3)

G 1 - Biological sciences
2 - Health occupations
3 - Environment, preventive medicine
4 - Biological phenomena, cell physiology, immunity (new; G1)
5 - Genetics (new; G1)
6 - Biochemical phenomena, metabolism, nutrition (new; G1)
7 - Physiology, general (new; G1)
8 - Reproduction and urogenital physiology (new; G1)
9 - Circulatory and respiratory physiology (new; G1)
10 - Digestive, oral and skin physiology (new; G1)
11 - Musculoskeletal, neural and eye physiology (new; G1)
12 - Chemical and pharmacological phenomena (new; G1)

H 1 - Physical sciences

I 1 - Social sciences
2 - Education (new)
3 - Human activities (new)

J 1 - Technology, industry, agriculture

K 1 - Humanities

L 1 - Information science

M 1 - Named Groups

N 1 - Population characteristics
2 - Facilities, manpower and services
3 - Economics, organizations and control
4 - Health services administration

Z 1 - Geographicals

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LIBRARY NETWORK/MEDLARS TECHNICAL BULLETIN

of the

Library Component of the Biomedical Communications Network

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U.S. DEPARTMENT OF HEALTH, EDUCATION, AND WELFARE
Public Health Service
National Institutes of Health

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JOURNAL CITATION DATA BASES

SDILINE and MEDLINE were updated at NLM with September 1974 citations on August 12. SDILINE at SUNY was updated with September 1 citations on August 12, but MEDLINE at SUNY will be updated with August and September citations on August 19 when the entire data base is converted to the ELHILL 3 programs on the SUNY computer. MEDFILE and COMPFILE have not been changed. The sizes, Index Medicus date ranges, and Entry Date ranges of the data bases are given below:

MEDLINE	(Jan 72 - Sept 74)	- 608,729
	(Entry Dates: 711130 to 740802)	
SDILINE	(Sept 74)	- 18,237
	(Entry Dates: 740712 to 740802)	
MEDFILE	(Jan 70 - Dec 73)	- 533,035
	(Entry Dates: 691126 to 731116)	
COMPFILE	(Jan 70 - Dec 73)	- 351,891
	(Entry Dates: 691126 to 731116)	

ON-LINE TECHNICAL NOTES

PLEASE QUERY THE NLM/ON-LINE NEWS FILES DAILY FOR SPECIAL NOTICES AND MESSAGES

CONNECT TIME, COMPUTING

The Message Control Program (MCP) provides on-line connect time information. At the time a LOGIN message is sent to the ELHILL 2 or ELHILL 3 programs, the time the user actually logged into TSO is set in a register in the MCP. When the first @ sign is entered at the terminal, the present time is compared with the login time to compute elapsed time and this is then printed out at the terminal. At the same time, the time for the @ sign replaces the login time in the register so that the next @ sign will give elapsed time since the prior one. However, if you leave the ELHILL programs (to LIST a TSO 'NEWS' file or to change from the ELHILL 2 to the ELHILL 3 programs, or vice-versa) and then re-enter ELHILL (2 or 3); at that time a new LOGIN is sent to the ELHILL programs and the process starts again with the MCP taking its first time from the time of your first TSO logon.

Thus, anytime a user enters the ELHILL programs, the first @ sign will give elapsed time since the beginning of the terminal session.

WATS USERS

Users who have been assigned a toll-free WATS line by the National Library of Medicine for accessing the ELHILL system should have recently received notification of a new California WATS number to be used. If your center is an assigned WATS user, and you have not received the new number, which begins 800-538-xxxx, please contact MEDLARS Management Section as soon as possible.

ARPA NETWORK

New TIP software (Version 322) is being installed in all ARPA TIPs. In the past, MEDLINE users operating at 30 cps have entered @ Device Code Extra Padding in order to prevent the dropping of characters from a fast carriage return. This is no longer necessary since the TIP will automatically insert the necessary nulls. In addition, users will have the ability to maintain a connection when software problems occur in the TIP. Under TIP Version 322, the TIP will notify users by printing "CONNECTION SUSPENDED". At this point the user can wait until service is restored, in which case the TIP will print "CONNECTION RESTORED". It is also important to remember to close the ARPA circuit with the @ C command. If for any reason you are disconnected from ARPA and have not closed the ARPA circuit, subsequent users of that circuit will be connected to ELHILL on your code and any use they make of the system will be charged to your user ID.

DROPPING CHARACTERS

Users with teletype compatible terminals, such as the CDI 1030, who are experiencing character dropping after fast carriage returns should type the letter C rather than the E when first logging in to the system via the TYMSHARE Network or a WATS line.

LONG SEARCH TERMS

At present, search terms which exceed thirty-six characters, including spaces and punctuation, will not be recognized by the system and will result in a NO POSTINGS response when entered on any of the MEDLINE-related files unless the term is truncated at or before the thirty-sixth character with the appropriate truncation symbol. When ELHILL 3 is fully implemented, long search terms may be input without truncation and will be recognized by the program, but only the first 39 characters will be verified. Currently the truncation symbol which must be used varies depending on whether the user is accessing a file under the ELHILL 2 or ELHILL 3 programs.

Within the ELHILL 3 files, the truncation symbol is the colon (:). Within the ELHILL 2 files, the truncation symbol is the pound sign or hash mark (#). When the truncation symbol is placed at the end of a series of characters, all items in the Index beginning with that word or root are represented. (The Index is the alphabetic/numeric list of all the searchable

elements in the unit records such as main headings, authors, languages, entry dates, etc.) Thus, if a term exceeds 36 characters the user must truncate the term at or before the 36th character using the appropiate truncation symbol, for example:

ELHILL 2: RENAL TUBULAR TRANSPORT INBORN ERR#

ELHILL 3: RENAL TUBULAR TRANSPORT INBORN ERR:

PROMPTING SYSTEM, NLM

Users may press the carriage return when using the NLM system in an attempt to prompt the system for a response, but no more than three carriage returns should be entered after any Search Statement or Command, as this causes the system to become overloaded and may cause other problems. The carriage return used as a system prompt serves no useful purpose on the SUNY system at the present time.

OFF-LINE PRINTS, SUNY

Off-line prints processed against the SUNY/SDILINE data base from July 22 through July 29, 1974 were found to be defective. Therefore, these off-line prints were processed again, automatically, once the problem had been corrected, without additional charge. All users who requested SUNY/SDILINE off-line prints during this period received the initial defective print and then later received the corrected off-line print.

ENGLISH LANGUAGE SEARCHING, ELHILL 3

In MEDLINE under ELHILL 3, a user who wishes to search for English language citations or foreign citations must normally include either ENG or FOR within the search statement using the logical operators AND or AND NOT. This will generally cause one or more TIME OVERFLOW messages. However, it is often possible to avoid the Time Overflow messages entirely by using the Stringsearch strategy after an initial group of postings has been retrieved. By stringsearching the Language (LA) field for :ENG:, the program will not have to compare the list of postings for all of the English or foreign language citations in the data base. The following examples illustrate the comparative number of steps needed to complete a language search using these two methods.

The AND ENG (LA) method:

```
SS 1 /C?
USER:

drug abuse and students and eng (la)        CR

PROC:
TIME OVFLW:  CONT?  (Y/N)
USER:

y                          CR
```

```
PROG:
TIME OVFLW:  CONT?  (Y/N)
USER:

y                CR

PROG:
SS (1) PSTG (104)

SS 2 /C?
USER:
```

The Stringsearch method:

```
SS 1 /C?
USER:

drug abuse and students          CR

PROG:
SS (1) PSTG (106)

SS 2 /C?
USER:

ts (la) :eng:              CR

PROG:
SS (2) PSTG (104)

SS 3 /C?
USER:
```

NON MESH TERMS

When displaying non MeSH terms in a "TREE" or "MESHNO" command, the user must include the (NON MESH) qualifier or truncate the term to avoid an error message. This is true in both the ELHILL 2 and ELHILL 3 programs. For example:

In ELHILL 2 and ELHILL 3

"TREE AMINO ACIDS, CYCLIC (NON MESH)"

"MESHNO AMINO ACIDS, CYCLIC (NON MESH)"

In ELHILL 3

"TREE AMINO ACIDS, CYCLIC:"

"MESHNO AMINO ACIDS, CYCLIC:"

In ELHILL 2

"TREE AMINO ACIDS, CYCLIC#"

"MESHNO AMINO ACIDS, CYCLIC#"

YEAR OF PUBLICATION (YP) AND PUBLICATION DATE (PD)

In ELHILL 3, the year in which the journal issue was published is entered in the Year of Publication (YP) field as a two-digit number. These dates are directly searchable in the Index and can be combined with other searchable elements to restrict a search to articles published in specific years. They must be entered in search statements as they appear in this field, that is as two-digit numbers only. For example:

EDUCATION AND 73

EDUCATION AND 73 OR EDUCATION AND 74

The Publication Date (PD) field is derived from the Source (SO) field and is identical to the data in that field. This date may appear in any of the following forms:

12 NOV 73 (generally for weekly journals)

OCT 72 (generally for monthly journals)

1971 (generally for annual serials)

Since the Publication Date (PD) field is also directly searchable in the Index it is important not to confuse the two-digit Year of Publication (YP) with the four-digit number which often appears in the Publication Date (PD) field.

In ELHILL 2 the Year of Publication (YP) may be searched with either a two-digit or a four-digit number, but it must always be linked with another two or four-digit number with the word THRU. For example:

EDUCATION AND 72 THRU 72

EDUCATION AND 72 THRU 74

EDUCATION AND 1972 THRU 1972

EDUCATION AND 1972 THRU 1974

MEDLINE AT THE WORLD HEALTH ORGANIZATION

Rolf Weitzel
Head, WHO MEDLINE Centre

The following is an account and evaluation of the experimental period of MEDLINE operations at the World Health Organization (WHO) from 11 April to 30 June, 1974.

OPERATIONS

(a) Communication

The MEDLINE data base is accessed through the Tymshare network. Dial-up telephone lines link the terminal to the Tymnet nodes at Brussels or Paris.

(b) Access

During April and May when the system was up from 9 a.m. (USA ET) access was possible only in the afternoon. Under the new service schedule, effective since 2 June, it is now possible to start operating at 8 a.m. local time (3 a.m. USA ET).

From 11 April to 30 June the data base was accessed on 52 days for a total of 137 connect hours or 2.5 hours a day for the following purposes:

46 hours training
36 hours promotion
56 hours searching

(c) Searches

During the experimental period 323 searches were run, retrieving a total of 12253 citations or an average of 38 per search. The breakdown is as follows:

Medical and drug research	59.4%
Public health	34.6%
Clinical medicine	5.7%
Psychiatry, Mental health	4.3%
Nursing	3.3%
Medical education	2.7%

This breakdown, of course, reflects the present composition of the Centre's user population, with WHO staff supplying two-thirds of the search requests. There can be no doubt that under the impact of the large-scale promotion programme now under way the above percentage rates will change and "Clinical Medicine" will occupy a more prominent position.

For every third search an off-line print was requested. The total number of citations printed off-line was 7,954 or an average of 85 per search.

Two hundred and nine searches were run for WHO technical staff at headquarters, in the regional offices and for field staff. Fifty requesters from 37 WHO Member States submitted 114 search requests. An analysis of these requesters gives the following distribution:

Medical officers, Public health administrators	40%
Teaching staff	26%
Hospital staff	20%
Others	14%

The average terminal time per search was 9.8 minutes.

PROMOTION

Systematic promotion of the system took place among technical staff at WHO headquarters. Presentations lasting about 45 minutes were given by Library promoters to small groups of three to seven staff members and comprised a short introduction and a sample search displaying a wide range of search capabilities. This was followed by a discussion period.

On four afternoons during the Twenty-seventh World Health Assembly the terminal was set up at the Palais des Nations for MEDLINE presentations to the delegates. During this period the National Library of Medicine arranged to have the system up at noon. Presentations were given until 4 p.m. and were followed by a searching session for the requests that had been submitted. About 150 delegates attended; those from the developing countries responded with enthusiasm.

A pilot field promotion in certain Middle East countries (Egypt, Lebanon, Iran, Pakistan) was undertaken by the Chief Librarian. The objective was to test interest of medical libraries, health workers and university staff in MEDLINE. Assurance of a high search potential was obtained.

Large-scale MEDLINE promotion has been planned and information packages in various degrees of detail and sophistication have been prepared and reproduced in great numbers. Field promotion will start in Member States of the African and the Eastern Mediterranean Regions of WHO. Promotion will be carried out in stages so that the demand will not exceed the Centre's service capacity.

EVALUATION

(a) User reaction

No systematic evaluation of user satisfaction was undertaken during the experimental period. There was, however, clear evidence of great user interest, as manifested by the sharp increase in the number of search requests. Though MEDLINE promotion had been limited to WHO headquarters staff, more than five times as many searches were run than during the first quarter of 1974. Users frequently stated that speed was important and that they would not have submitted a MEDLARS search request with a processing time of two to three weeks.

There is a slow but distinct change in the users' attitude regarding the comprehensiveness of the searches. MEDLARS had accustomed them to exhaustive searches with the emphasis on high recall. Now more and more readers adopt the MEDLINE philosophy of aiming at retrieval of a few but highly relevant citations. Continued use of the system will accentuate this trend.

(b) Searching problems

The determining factor of the WHO MEDLINE Centre's operations is the high communication cost. It is at present estimated at $45 per hour and enforces a rigid control of the system interaction and constant monitoring of the operating staff. Searching at the terminal is preceded by a careful analysis of the search request. Search analysts access the system with thoroughly prepared lists of search terms, tree numbers, etc. and a draft search strategy. Vocabulary browsing is practically banned, commands like "Tree" or "Neighbor" are rarely used.

The establishment of a Swiss Tymshare node, which is planned for early September, will cut the communication cost by 50 per cent. This will make it possible to consider direct interaction with the system for select user groups, after appropriate briefing.

Communication with the requesters is sometimes problematic. While it is obviously excellent with the majority of the WHO users who can be contacted in person, it is practically nonexistent with most of the users outside Geneva especially those sending requests from remote places of the globe. This difficulty is accentuated by linguistic problems which in such an acute form do not exist for any other Centre. Requests are normally received in English or French; the interpretation of search statements is sometimes difficult due to the requester's poor command of these languages.

OUTLOOK

The full operational status of the WHO MEDLINE Centre will commence on 1 September and it is expected that by then the first impact of the large-scale promotion campaign in the developing countries will be

felt. A service level of 3000 searches is anticipated for 1975 and of 5000 searches for 1976.

Over the next years MEDLINE will become an important component of the WHO Global Health Literature Programme whose outline was sketched by Seymour I. Taine in the May issue of World Health.

RECOMMENDATION FOR PROCEDURAL CHANGE IN PRINT OFF-LINE COMMAND

Cyril C. H. Feng
Deputy Director, Louis Calder Memorial Library
University of Miami School of Medicine

We believe most MEDLINE analysts would agree that sitting at the terminal waiting to complete a "PRINT OFF-LINE" command is most dull and often tediously long. A simple search may require only one or two Carriage Returns to complete but it takes 7 CRs to complete an off-line printing routine. Assuming an average response time between dialogues is 10 seconds, it will require at least 70 seconds of waiting time to complete an off-line printing command, in addition to the time required to type answers.

Many analysts prefer to receive off-line prints first so that they may have a chance to check the search results before giving it to their patrons. Also, many requestors, like interns and residents, prefer the library as their message center because they have no permanent office. We would like to suggest that some coding mechanism be incorporated into the retrieval system so that libraries that wish to receive off-line prints could simply enter the library's 5-character code in place of typing out the whole address. As illustrated below, this would eliminate 3 CRs, a saving of 30+ seconds of waiting time per command.

Present Procedures		Proposed Procedures	
USER: "PRINT OFF-LINE"	(CR)	USER: "PRINT OFF-LINE, MIAXX"	(CR)
PROG: NAME AND BUSINESS PHONE? USER: XXXXXXXXXXXXXXXXXXX	(CR)		
PROG: STREET? USER: XXXXXXXXXXXXXXXXXXX	(CR)		

```
PROC:
CITY, STATE (PLEASE DO NOT ABBREVIATE),
AND ZIP
USER:
XXXXXXXXXXXXXXXXXXX      (CR)

PROG:
REQUESTOR'S NAME, OR SAME
USER:
XXXXXXXXXXXXXXXXXXX      (CR)

PROG:
SEARCH TITLE, OR NONE-
USER:
XXXXXXXXXXXXXXXXXXX      (CR)

PROG:
OK?  (YES/NO/CANCEL)
USER:
Y    (CR)

PROG:
OFF-LINE PRINT COMPLETED

SS    /C?
```

```
PROG:
REQUESTOR'S NAME, OR SAME
USER:
XXXXXXXXXXXXXXXXXXX      (CR)

PROG:
SEARCH TITLE, OR NONE-
USER:
XXXXXXXXXXXXXXXXXXX      (CR)

PROG:
OK?  (YES/NO/CANCEL)
USER:
Y    (CR)

PROG:
OFF-LINE PRINT COMPLETED

SS    /C?
```

At a rate of a 4,500+ off-line print requests per month nationwide, this change would mean a total reduction of 40+ hours of connect time spent waiting between CR's, not including time spent typing the address.

RESPONSE TO 'RECOMMENDATION FOR PROCEDURAL CHANGE IN PRINT OFF-LINE COMMAND'

David Kenton
Chief, On-line Services, Office of Computer and Communications Systems, NLM

Inputting the information required to request an off-line print is often a time consuming process, especially when there are many users on the system. During the past two years, we have received several suggestions, the latest from Mr. Cyril H. Feng of the University of Miami, that we store the NAME, ADDRESS, and CITY-STATE-ZIP for users and thus avoid half the prompts issued by the system for each off-line print. This is particularly important for institutions which do many prints for users and have these printouts mailed directly to them before delivery to the individuals who originally requested the search.

It is technically possible for the off-line print to be modified as Mr. Feng suggests. For example, a system might be implemented in which a keyword such as STORENAME is used in the command causing a stored name and complete address

(one per user code) to be appled with the system only issuing prompts for REQUESTOR, TITLE, and OK? (Y/N/C) The command might appear as:

"PRINT OFF-LINE STORENAME"

At present we are in the process of installing MEDLARS II and ELHILL 3 and cannot devote the time to implement a procedure for storing names and addresses for off-line prints; however, we will do so as soon as possible, perhaps as early as January 1975. A subsequent article in the Technical Bulletin will deal with this subject giving instructions on how to store the data and use the new facility.

ANNOUNCEMENT OF 1974 MeSH PUBLICATIONS

Clifford A. Bachrach, M.D.
Head, Medical Subject Headings Section, NLM

The first two 1974 MeSH publications, which will become available from the National Technical Information Service in September, will be the first MeSH publications to reflect the form and structure of MEDLARS II MeSH.

These are:

1. Medical Subject Headings--Alphabetic List, 1975--Interim Edition
   PB 234-189 $7.50

2. Medical Subject Headings--Tree Structures, 1975--Interim Edition
   PB 234-190 $9.00

The interim editions are being issued at this time primarily to assure their availability to indexers in time for the start of 1975 indexing in October. These publications contain several hundred new major descriptors under which citations may appear in Index Medicus. Because of irreconcilable differences in the printer's deadlines and delivery dates for some MEDLARS II programs, another several hundred major descriptors that will be used in 1975 indexing could not be included. Instead they will be furnished to indexers separately just before 1975 indexing begins. Lists of these added major descriptors will also either be printed in the technical bulletin or otherwise made available to MEDLINE users.

Time constraints have also necessitated the omission of the annotations which were a useful feature of the 1973 and 1974 issues of the "Indexers' MeSH".

In this edition of 1975 MeSH, minor descriptors, most of which were "see under" cross references in the 1974 MeSH, appear as searchable terms. Of course, there will be no postings under any of these minor descriptors until indexers begin to use them to index citations with the onset of 1975 indexing. The major and minor descriptors and the seven-level trees contained in these volumes are identical with those now available on-line to ELHILL 3 users. The printed books are a convenience and time-saver to the on-line searcher to the extent

that they relieve him of dependence on the "NEIGHBOR," "TREE," and "MESHNO" commands.

A definitive 1975 MeSH publication is anticipated by early spring 1975. This will include all 1975 major descriptors and several thousands of additional minor descriptors and entry terms. Thereafter, several supplementary lists of minor descriptors and entry terms may be issued, which will be cumulated in the 1976 MeSH publications.

ELHILL 2 & ELHILL 3
ACCESS PROCEDURE, CHANGING FILES, AND CHANGING SYSTEMS

Leonard J. Bahlman
MEDLARS Management Section, NLM

A number of trouble calls and reports have been received from the user community, indicating that many users are having difficulty in accessing and changing files because of the new ELHILL 3 procedures. The following describes the procedure for accessing ELHILL 2 and ELHILL 3 files residing on the NLM computer. Note that the SUNY login and file changing procedures have not been changed.

NLM and NLM2

MEDLINE, JOURNAL AUTHORITY FILE, MESH VOCABULARY FILE -

These files are available from NLM under the ELHILL 3 programs only. Once the user has completed the login and receives the READY cue, he may access ELHILL 3 by entering any of the following words: ELHILL 3 or MEDLINE or MESH or JOURNAL, but no matter which is used he will automatically be connected to the MEDLINE data base. If the user then desires to access the JOURNAL AUTHORITY FILE, he must execute the "FILE JOURNAL" command after a USER: cue. If he wishes to access the MeSH VOCABULARY FILE, he must execute the "FILE MESH" command after a USER: cue. To return to the initial file, MEDLINE, the user must then execute the command "FILE MEDLINE" after a USER: cue.

A user may switch from one of the files which reside under ELHILL 3 to a file which resides under ELHILL 2 by entering "QUIT" after a USER: cue, and upon receiving a READY cue entering ELHILL or CATLINE or COMPFILE or MEDFILE or SDILINE or SERLINE. Whichever word is used, he will automatically be connected to the SDILINE file, as this the initial file on the ELHILL 2 system. If the user wishes to access a file other than SDILINE, he must then request the specific file after receiving a USER: cue, by executing one of the following commands: "FILE CATLINE" or "FILE COMPFILE" or "FILE MEDFILE" or "FILE SERLINE". To return to the SDILINE file, the user must then execute the "FILE SDILINE" command.

Note: The SDILINE and MEDLINE files are also available under the SUNY/SUNY2 system. If you are on any MEDLINE related file and you wish to access the TOXLINE and CHEMLINE data bases, you must logoff the system and relogin through the NLM/NLM2 system with your authorized TOXLINE code, as MEDLINE codes cannot be used to access TOXLINE and CHEMLINE.

CATLINE, COMPFILE, MEDFILE, SDILINE, SERLINE

These files are available on the NLM/NLM2 system under the ELHILL 2 programs only. Once the user has completed the login procedure and receives the READY cue, he may access ELHILL 2 by entering any of the following words: ELHILL or CATLINE or COMPFILE or MEDFILE or SDILINE or SERLINE, but no matter which is used he will automatically be connected to the SDILINE data base. If the user desires to access one of the ELHILL 2 files other than SDILINE, he must execute the command "FILE " (placing the name of the desired file within the quotation marks after the word FILE), after receiving a USER: cue. To return to the SDILINE file, the user must then execute the command "FILE SDILINE" after a USER: cue.

A user may switch from one of the files which reside under ELHILL 2 to a file which resides under ELHILL 3, by entering "QUIT" after a USER: cue, and upon receiving a READY cue entering ELHILL 3 or MEDLINE or JOURNAL or MESH. Whichever word is used he will automatically be connected to the MEDLINE file, which is the initial file on the ELHILL 3 system. If the user wishes to access a file other than MEDLINE, he must then request the specific file after receiving a USER: cue, by executing one of the following commands: "FILE JOURNAL" or "FILE MESH".

TOXLINE and CHEMLINE

Users wishing to access either of these data bases must login, with their authorized TOXLINE code, to the NLM/NLM2 system. After the READY cue the user must enter ELHILL or TOXLINE or CHEMLINE to connect to the ELHILL 2 system. Whichever word is used he will automatically be connected to the TOXLINE data base. If the user then wishes to access the CHEMLINE data base, after receiving a USER: cue he must execute the command "FILE CHEMLINE". To return to the TOXLINE data base after using the CHEMLINE file, the user must execute the command "FILE TOXLINE".

Note: The TOXLINE and CHEMLINE data bases are not available on the SUNY/SUNY2 system. Also, Users who have logged in with an authorized TOXLINE code, who wish to access one of the MEDLINE files, and who posess an authorized MEDLINE code, must logoff of the system and relogin to NLM or NLM2, using their MEDLINE code, as TOXLINE codes are not permitted access to the MEDLINE files.

SUNY and SUNY2

MEDLINE and SDILINE

Users accessing these files through SUNY or SUNY2 will be connected directly to the MEDLINE file. If you wish to access the SDILINE file

you must execute the command "FILE SDILINE" after a USER: cue. To return to MEDLINE after using this file, you must execute the "FILE MEDLINE" command after a USER: cue.

Note: Both the MEDLINE and the SDILINE files are available on the NLM/NLM2 system. Also, users wishing to access one of the files not residing on the SUNY/SUNY2 system must logoff of the system completely and relogin under NLM or NLM2, and then follow the above procedures for the desired file.

USERS AUTHORIZED TO ACCESS SPECIFIC FILES

Several users have been authorized access to only specific files, e.g. TOXLINE. Under ELHILL 3, when the READY cue is received, any file which resides on ELHILL 3 may be requested, the user will automatically be routed to the authorized file. The user can switch only from one authorized file to another authorized file. The same policy applies to users who have authorized use on specific files under ELHILL 2, e.g. CATLINE.

Other users have been assigned, or have requested, that a file other than ELHILL 3/MEDLINE or ELHILL 2/SDILINE be designated as their 'primary use' file. These users are routed directly to the designated file after the login procedure, regardless of which file is specified after the READY cue. These users do, however, have the option of switching files via the "FILE " command, and may also move from ELHILL 2 to ELHILL 3 when they so desire, using the above procedures.

FUTURE PLANS

NLM and NLM2

It is expected that by Fall 1974, all files on the NLM system will be operational under the ELHILL 3 programs. At that time, users logging in under an authorized MEDLINE code will automatically be routed to the MEDLINE data base; users with an authorized CATLINE code will be routed to the CATLINE data base; and users with an authorized TOXLINE code will be routed to the TOXLINE data base.

SUNY and SUNY2

In August 1974, the MEDLINE and SDILINE files residing on the SUNY system are expected to become operational under the ELHILL 3 programs. However the SUNY login procedures will not be changed since both MEDLINE and SDILINE will be running under the same programs.

The following chart may prove helpful to illustrate the above material and procedures:

FILES AVAILABLE	JOURNAL AUTHORITY FILE MEDLINE MeSH VOCABULARY FILE	CATLINE SDILINE COMPFILE SERLINE MEDFILE	TOXLINE CHEMLINE	MEDLINE SDILINE
SYSTEM	ELHILL 3 (NLM or NLM2)	ELHILL 2 (NLM or NLM2)	ELHILL 2 (NLM or NLM2)	ELHILL 2 (SUNY or SUNY2)
TO LOGIN	PLEASE LOGIN: nlm or nlm2 PASSWORD: xxx ; medxxxxx XXXXX LOGON IN PROG... READY elhill3 (or mesh or journal or medline)* TSO LINE XXX HELLO FROM ELHILL 3... YOU ARE NOW CONNECTED TO THE MEDLINE FILE...	PLEASE LOGIN: nlm or nlm2 PASSWORD: xxx ; medxxxxx XXXXX LOGON IN PROG... READY elhill (or catline or sdiline or serline or compfile or medfile)** TSO LINE XXX YOUR INITIAL FILE... THIS TERMINAL IS CONNECTED TO THE SDILINE RETRIEVAL FILE SET...	PLEASE LOGIN: nlm or nlm2 PASSWORD: xxx ; medxxxxx XXXXX LOGON IN PROG... READY elhill (or toxline or chemline)*** TSO LINE XXX YOUR INITIAL FILE... THIS TERMINAL IS CONNECTED TO THE TOXLINE RETRIEVAL FILE SET...	PLEASE LOGIN sunv or sunv2 PASSWORD xxx ; medxxxxx THIS TERMINAL IS CONNECTED TO THE MEDLINE RETRIEVAL FILE SET. HELLO FROM SUNY/MEDLINE...
TO CHANGE FILES	SS X /C? USER: "file mesh" or "file journal" or "file medline" (to return to initial file)	SS X /C? USER: "file catline" or "file compfile" or "file medfile" or "file serline" or "file sdiline" (to return to initial file)	SS X /C? USER: "file chemline" or "file toxline" (to return to initial file)	SS X /C? USER. "file sdiline" or "file medline" (to return to initial file)
TO CHANGE SYSTEM	SS X /C? USER: "quit" READY elhill	SS X /C? USER: "quit" READY elhill3	SS X /C? USER: "stop" RE-LOGIN	SS X /C? USER. "stop" RE-LOGIN

Notes: *User will automatically be connected to the MEDLINE file. If another file is desired, the user must enter "FILE " after completing login.

**User will automatically be connected to the SDILINE file. If another file is desired, the user must enter "FILE " after completing login.

***User will automatically be connected to the TOXLINE file. If access to the CHEMLINE file is desired user must enter "FILE CHEMLINE".

PRETAPING ON-LINE SEARCHES

Terry A. Thorkildson
Library of the Medical Sciences, University of New Mexico

The librarian shopping for a data terminal should be aware of some of the benefits to be derived from those models with magnetic tape subsystems. While my experience has been with a Texas Instruments 733 ASR, similar cassette systems, with variations, are available from several manufacturers. Off-line data preparations and transmission from cassette storage can result in significant savings in terms of line costs and operator time. Without enumerating many of the technical possibilities of these systems, I will present a few practical applications to MEDLINE searching.

Lengthy search formulations are often good candidates for pretaping. The recording of the formulation by keyboard input is done before getting on-line. With the taping completed, the analyst connects with the computer, and the formulation is then played back on the keyboard at 30 cps and transmitted on-line with each prerecorded carriage return. The connect time cost savings, considerable even at modest MEDLINE charges, are even greater on TOXLINE or other more expensive data bases.

A particularly useful application is the storage and transmission of recurring demand searches on SDILINE. The SDI's need be recorded only once, after which they may be used indefinitely. The editing capabilities of our cassette system facilitates the occasional modification or deletion of these SDI's as well.

The ability to store and recall MeSH "hedges" is also very useful. The hedge is not only conveniently stored and easily retrieved, but the retyping chore is eliminated (at least until the next edition of MeSH is published). By addressing a hedge or other prerecorded search formulation with a label of your choice, the exact location of the desired formulation may be found automatically without the wasteful playback of neighboring data on the cassette.

The most frequent utilization I make of the cassette system involves the ordering of off-line prints. It has eliminated the constant tedium of typing the name/address information in ordering those off-line prints that are to be sent to our library.

When inputting a pretaped search formulation, the analyst can modify, supplement or even completely abandon his prerecorded strategy. The savings achieved will be to the extent that the pretaped data was input or utilized. Interactive "browsing" of the data base need not be neglected when appropriate.

Finally, a benefit of pretaping search formulations can be the greater demand upon the analyst to be as thorough as possible in formulating the strategy before connecting on-line. Less connect time is wasted on checking a spelling, tree number, aspect of the strategy, etc. If a search is pretaped, it must be preplanned.

Editor's Note: Although the pre-taping procedures used by Mr. Thorkildson at the University of New Mexico and perhaps by other institutions are certainly time savers, they do involve the purchase or leasing of new equipment. It should be noted, therefore, that the new STORED SEARCH capabilities under MEDLARS II will largely eliminate the need for such equipment.

These new capabilities will allow the storage of SDI formulations, MeSH "hedges" and lengthy search formulations using special on-line commands in a manner almost identical to the pre-taping routines described by Mr. Thorkildson. These capabilities will be made available and described in detail later this year, as will the capability of storing name and address information for off-line prints (see the article in this issue by D. Kenton, pp. 11-12).

NEW INDEX MEDICUS TITLES

Betsy Humphreys
Serial Records, Technical Services Division, NLM

The following is an alphabetical listing of 37 new journal titles which will be added to Index Medicus as the result of recommendations made by the Library's Journal Selection Consultants in July. In addition to the full titles, this SERLINE listing gives the following information for each title: International Standard Serial Number (where available), first issue and date, place of publication, publisher, any notes on title changes, etc., and a tag indicating which titles will be selectively indexed (S).

Later this year a list of the titles which were deleted from Index Medicus on the recommendation of the Journal Selection Consultants will also be published in the Technical Bulletin.

ISSN	Title and Descriptive Information
0001-6896	Acta Psiquiatrica y Psicologica de America Latina 8,1962-- Buenos Aires Acta Fondo Para la Saluce Mental Vol 8-9 as Acta. . . y Psicologica Argentina Cont of Acta Neuropsiquitrica Argentina
-	Actualites Neurophysiologiques 1,1959-- Paris Masson et Cie Lectures given at Faculte des Sciences de Paris
0001-8449	Adolescence 1,1966-- New York Libra Publishers

ISSN	Title and Descriptive Information
0301-0864	Anaesthesia, Resuscitation and Intensive Therapy 1,1973-- Warsaw Panstwowy Zaklad Wydawnictw Lekarskich Polish Society of Anaesthesiologists. Translation of Anestezja, Reanimacja, Intezywna Terapia, T.5--
-	Anales Espanoles de Pediatria 6,1973-- Madrid Asociacion Espanola de Pediatria
-	Annales Immunologiae Hungaricae 1,1958-- Budapest Medicina
0004-5632	Annals of Clinical Biochemistry 6,1969-- Liverpool Association of Clinical Biochemists Liverpool Cont of Proceedings of the Association of Clinical Biochemists
0301-4460	Annals of Human Biology 1,1974-- London Taylor and Francis Society for the Study of Human Biology
0301-567x	Beitrage zur Tropischen Landwirthschaft und Veterinaermedizin (S) 11,1973-- Leipzig Karl Marx Universitaet Cont of Beitraege zur Tropischen und Subtropischen Landwirtschaft und Tropenveterinaermedizin
0006-3061	Bioinorganic Chemistry 1,1971-- New York American Elsevier
0301-0511	Biological Psychology 1,1973-- Amsterdam North Holland Publishing Co
0301-4622	Biophysical Chemistry 1,1973-- Amsterdam North Holland Publishing Co
0007-4888	Bulletin of Experimental Biology and Medicine 41,1956-- New York Consultants Bureau Trans of Biulletin Eksperimentalnoi Biologii i Meditsiny Assuming its Vol Numbering

ISSN	Title and Descriptive Information
-	Bulletin of the Pan American Health Organization 7N3,1973-- Washington Pan American Health Organization Cont of English Ed of Boletin de la Oficina Sanitaria Panamericana. Contains selected works from concurrent issues of the Boletin de la Oficina Sanitaria Panamericana
0092-8674	Cell 1,1974-- Cambridge Mass MIT Press Massachusetts Institute of Technology
0300-8525	Chinese Journal of Physiology 1,1927-- Taipei Chinese Physiological Society Taipei Title in Chinese: Chung-Kuo Sheng Li Hsueh Tsa Chih
0301-5661	Community Dentistry and Oral Epidemiology 1,1973-- Copenhagen Munksgaard
0091-1690	Connective Tissue Research 1,1972-- London/New York Gordon and Breach
0301-4681	Differentiation (S) 1,1973-- London MacMillian Journals
-	Egyptian Journal of Bilharziasis 1,1974-- Cairo National Information and Documentation Centre
0300-5429	Environmental Physiology and Biochemistry 2,1972-- Copenhagen Munksgaard Cont of Environmental Physiology
0046-2233	Environmental Biology and Medicine 2,1973-- New York Gordon and Breach
0301-4703	Essays in Fundamental Immunology 1,1973-- Oxford Blackwell Scientific Publications

ISSN	Title and Descriptive Information
0301-4711	European Journal of Cardiology 1,1973-- Amsterdam Excerpta Medica
0301-472x	Experimental Hematology 1,1973-- Copenhagen Munksgaard International Society for Experimental Hematology
0093-0344	Hastings Center Report 91I,1971-- New York Institute of Society, Ethics and the Life Sciences Issues for 1971 have issue numbers only but constitute V.1
-	Hastings Center Studies 1,1973-- Hastings-On Hudson Hastings Center
0092-1157	Journal of Biological Standardization 1,1973-- New York Academic Press International Association of Biological Standardization
0047-4592	Life-Threatening Behavior 1,1971-- New York Behavioral Publications American Association of Suicidology
0301-4851	Molecular Biology Reports (S) 1,1973-- Dordrecht Reidel
-	No Shinkei Geka. Neurological Surgery 1,1973-- Tokyo Igakushoin
-	Nucleic Acids Research 1,1974-- London Information Retrieval
-	PDM Physicians Drug Manual 1,1969-- New York Physicians Drug Manual

ISSN	Title and Descriptive Information
0092-2900	Perspectives in Nephrology and Hypertension 1,1973-- New York John Wiley and Sons
-	Psihoterapija 1,1973-- Zagreb Centar za Mentalno Zdravlye Klinicka Bolnica Rebro
0039-6257	Survey of Ophthalmology 1,1956-- Baltimore Williams and Wilkins
0301-5629	Ultrasound in Medicine and Biology 1,1973-- Oxford Pergamon Press

MEDLINE TRAINEES AT NLM, JULY 15, 1974

The eighteenth NLM MEDLINE Training Class was held July 15 - August 2, 1974. The following people attended:

Gail Botta	Albany Medical College Library Union University Albany, New York
Robert Brandon	Georgetown University Dahlgren Medical Library Washington, D.C.
Patrick Brennen	University of South Dakota Health Science Library Vermillion, South Dakota
Patti Burmeister	National Library of Medicine MEDLARS Management Section Bethesda, Maryland
Emily Foster	University of Alabama Library Huntsville, Alabama
Naomi Hawkins	National Institutes of Health National Institute of Neurological Diseases and Stroke Bethesda, Maryland

Lois Inskeep	Veterans Adminstration Hospital Medical Library Jackson, Mississippi
Helene Leighton	Massachusetts General Hospital Medical Library Boston, Massachusetts
Karin Ljungars (Auditor)	Karolinska Institute Stockholm, Sweden
Alan Rees	Case Western Reserve University School of Library Science Cleveland, Ohio
Betsy Schreder	Veterans Administration Hospital Medical Library Wilkes-Barre, Pennsylvania
Edwin Sunderland	University of Maryland Health Sciences Library Baltimore, Maryland
William West	Veterans Administration Hospital Medical Library Buffalo, New York
Calvin Zamarelli	Veterans Administration Hospital Medical Library East Orange, New Jersey

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U.S. DEPARTMENT OF HEALTH, EDUCATION, AND WELFARE
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JOURNAL CITATION DATA BASES

MEDLINE and SDILINE were updated at NLM with October 1974 citations on September 16. MEDLINE at SUNY was updated with October 1974 citations on September 23. SDILINE will not be available at SUNY until further notice. MEDFILE and COMPFILE have not been changed. The sizes, Index Medicus date ranges, and Entry Date ranges of the data bases are given below:

MEDLINE	(Jan 72 - Oct 74)	- 630,726
(Entry Dates:	711130 to 740908)	
SDILINE	(Oct 74)	- 20,087
(Entry Dates:	740812 to 740908)	
MEDFILE	(Jan 70 to Dec 73)	- 533,035
(Entry Dates:	691126 to 731116)	
COMPFILE	(Jan 70 to Dec 73)	- 351,891
(Entry Dates:	691126 to 731116)	

ON-LINE TECHNICAL NOTES

PLEASE QUERY THE NLM/ON-LINE NEWS FILES DAILY FOR SPECIAL NOTICES AND MESSAGES

INDEX MEDICUS HEADINGS

MeSH headings may be preceded by an asterisk (*) to retrieve only those articles where the requested Main Heading or Main Heading/Subheading combination is the major point of the article. For example, *HEART DISEASES or *HEART DISEASES/ANATOMY AND HISTOLOGY.

When a Main Heading without a Subheading is preceded by an asterisk, citations with or without Subheadings will be retrieved. In ELHILL 2, when citations are printed with their Main Heading or Main Heading/Subheading combinations, the user can expect to find the particular citation in Index Medicus under each Main Heading or Main Heading/Subheading combination which appeared in the tracings preceded by an asterisk.

In ELHILL 3, the search strategy remains the same, but when the Main Headings are printed, Index Medicus terms are handled in a slightly different manner. Print terms may appear in two forms, e.g., *HEART DISEASES/ANATOMY AND HISTOLOGY or HEART DISEASES/*ANATOMY AND HISTOLOGY.

If the entire Main Heading or Main Heading/Subheading combination is preceded by an asterisk, the citation will appear in Index Medicus under the Main Heading only, and not under the Main Heading/Subheading combination. If a Subheading is preceded immediately by the asterisk, the citation was printed in Index Medicus under that Main Heading/Subheading combination only.

WATS USERS

All Chicago WATS lines (800-621-xxxx) have been discontinued. Users who have been assigned a toll-free WATS line by the National Library of Medicine for accessing the ELHILL system should be using the California WATS line (800-538-xxxx). Please contact MEDLARS Management Section if you have not received the new number, or if you experience any difficulty using this line.

NEWS FILES, NLM/ON-LINE

It is no longer necessary to "QUIT" the NLM/ELHILL system to access any of the on-line News Files. All of these special News files may be accessed by simply entering the name of the file preceded by two double quote marks after a USER: cue. For example:

```
SS 4 /C?
USER:

""HOURS          CR
```

The system will print out the desired News File and then return the user to the current search statement number. The following News Files are available on the NLM/ELHILL system (there are no News Files available on the SUNY system at present).

News Files	Contents
""ACCESS	For a list of available News Files.
""ELHILL3	For news specific to the ELHILL 3 programs.
""HOURS	For NLM and SUNY on-line service hours.
""NEWS	For general news.
""PHONES	For a list of the TYMSHARE access phone numbers.
""SERNEWS	For news specific to SERLINE
""SUNY	For news specific to the SUNY computer.
""TOXLINE	For news specific to TOXLINE.
""UPDATES	For the dates on which new notices were added to the NEWS file.

SUBHEADINGS APPLY

The following changes were recently made in the "SUBHEADINGS APPLY" command:

1) The "ERASEALL" command now cancels applied subheadings.

2) The "FILE _____" command now cancels applied subheadings.

3) The "RESTACK" and "ERASEBACK" commands do not cancel applied subheadings.

4) If a "SUBHEADINGS APPLY" command must be continued on a

second line, end the first line with a comma (,) or the logical operator OR. You will then be prompted with the CONTINUE SUBS- message. This message is now followed by a USER: cue so that you may either a) add the additional subheadings without quotes and separated by commas or ORs, or b) you may enter any command. In option "b", at least one subheading must be entered on the first line or after the CONTINUE SUBS- message before a command will be executed by the programs. This will cause the program to accept the subheadings already entered on the first line and then execute the command specified. For example:

a)
```
SS 5 /C?
USER:

"SUBHEADINGS APPLY AE, PO, TO,"        CR

PROG:
CONTINUE SUBS-
USER:

DT, VE          CR

PROG:
SUBHEADINGS ACCEPTED
SS 5 /C?
USER:
```

b)
```
SS 5 /C?
USER:

"SUBHEADINGS APPLY AE, PO, TO,"        CR

PROG:
CONTINUE SUBS-
USER:

"NEIGHBOR ARSENIC"              CR

PROG:
SUBHEADINGS ACCEPTED

POSTINGS       TERM
    58       ARSENI C (AU)
     1       ARSENIAN J (AU)
   474       ARSENIC (MH)
   196       ARSENICALS (MH)
     1       ARSENIJEVIC M (AU)
UP N OR DOWN N?
USER:
```

OFF-LINE PRINTS, TITLE

When requesting one or more off-line prints, please enter a title for each print requested. When large volumes of prints are generated, occasionally the pages become separated in the middle of one off-line print. Without a title at the top of each page of the printout, it is difficult to determine where the print resumes. If no logical title is available, you may enter the name of the search analyst or the ultimate user, even if his/her name has already been entered as the "requestor's name."

STRINGSEARCH NOT CAPABILITY

The STRINGSEARCH strategy has a capability which many users may not be aware of at this time. It is possible to use the word NOT in a STRINGSEARCH statement alone as the only logical operator to exclude records containing a word, word fragment or phrase from the field being searched. For example the statement

TS NOT :ATYPICAL MYCOBACTERIA:

in MEDLINE will only retrieve citations in which the phrase "atypical mycobacteria" does not appear in the title. In other words this search sould exclude titles with the phrase "atypical mycobacteria".

ABBREVIATION FOR JAPAN

The American National Standards Institute, the Library of Congress, and others are adopting JPN in place of JAP as an abbreviation for Japan, and for all words beginning with Japan- or Japon-.

The National Library of Medicine will also adopt this usage. Beginning with 1975 publications, JPN will be used both as a language abbreviation and as an abbreviation in journal titles.

CCALINE/CANCERLINE: A NEW NLM/NCI DATA BASE

Samuel Tancredi, National Cancer Institute
Patti Burmeister, MEDLARS Management Section, NLM

During the spring of 1973 the National Library of Medicine and the National Cancer Institute began a series of meetings aimed at supporting the National Cancer Institute's International Cancer Research Data Bank (ICRDB), whose objective is to promote and facilitate, on a world-wide basis, the exchange of information through cancer centers and other appropriate organizations to all physicians for the public good.

The ICRDB Program began its development in response to Congressional directives in the National Cancer Act of 1971 which states that NCI

> ". . . shall collect, analyse and disseminate all data useful in the prevention, diagnosis and treatment of cancer, including the establishment of an international cancer research data bank to collect, catalog, store and disseminate insofar as possible the results of cancer research undertaken in any country for the use of any person involved in cancer research in any country."

As a result of collaborative efforts with key NLM staff, an interagency agreement with NCI is presently being finalized for the placement of cancer-related information (abstracts, citations, descriptive information) into data bases generated, maintained and operated on the NLM computer system, and for the dissemination of this information to various users via NLM's biomedical communications network or via direct mailing of magnetic tapes.

A new data base called CCALINE under the ELHILL 2 programs was implemented and made available to MEDLINE and TOXLINE users. The service is now available at MEDLINE rates, that is, $6.00 per connect hour and $.10 per page of off-line prints. The name of this data base, which stands for Cancer Chemotherapy Abstracts on-line, will be changed to CANCERLINE when the data base is moved to the ELHILL 3 programs (the ELHILL 2 programs permit a maximum of only 8 letters for each data base name).

The scope of the data base at present includes 16,000 CCA abstracts dating from January 1967 through December 1972, with references to published human and animal studies, agents, tumors, etc. Within the next several months, additional therapy abstracts for the years 1973-1974, as well as approximately 18,000 Carcinogenesis Abstracts and 6,000 descriptions of on-going cancer research projects will be added to the present data base.

The data base can be accessed by entering ELHILL at NLM in the usual manner and then typing the command "FILE CCALINE" after any USER: cue. All records in the data base are retrievable through "free text" search, that is, all significant words from the abstracts and titles are directly searchable. Search strategies other than these free text capabilities are the same as those in other ELHILL 2 data bases such as CATLINE, SDILINE, SERLINE, etc.

UNIT RECORD

The nine fields of a CCALINE unit record, some of which are unique to CCALINE, are listed in the table below along with the field abbreviations and search and print statuses for each field. Following the table is a detailed description of each field in the unit record.

Field Name	Abbreviation	Directly Searchable	Standard Print Commands		
			Print	Print Trial	Print Full
Abstract	AB	No	No	No	Yes
Author	AU	Yes	Yes	Yes	Yes
Classification Code	CC	Yes	No	No	Yes
Citation Number	CN	Yes	Yes	Yes	Yes
Index Terms	IT	Yes	No	No	No
Language	LA	Yes	No	Yes	Yes
Source Journal	SO	Yes	Yes	Yes	Yes
Title	TI	No	Yes	Yes	Yes
Text (Unique Terms)	TX	Yes	No	No	No

(AB) The abstract may be printed on-line by using the print full command or a tailored print command. It may be searched directly only by using the STRINGSEARCH strategy, or individual words and word fragments may be searched directly in the text (TX) field. See below.

(AU) Authors are printed in the format in which they appear in Cancer Chemotherapy Abstracts, but must be searched as last name, space, initials including JR or SR (if applicable) e.g. MURPHY GP (AU). Names may be truncated when unsure of initials or spelling e.g. JONES# (AU)

(CC) The classification code describes the length of the abstract, if given, and the general area of interest. The code field is directly searchable. It consists of two characters which have the following value and meanings.

First Character
- A Annotation (Short abstract)
- T Text (Extended abstract)
- C Citation only (No abstract)

Second Character
- R Review
- C Clinical Study
- P Pharmacology - Biochemistry
- S Screening

(CN) This CCA abstract number is a directly searchable category. It takes the form TYY-NNNN, where T (if present) indicates that the citation is from CCA, YY is a number indicating the year in which the abstract (not the original article) was published in CCA and NNNN is a sequential number which begins at one in each calendar year, e.g., T71-1730 represents Cancer Chemotherapy Abstract number 1730 for the year 1971.

(IT) These general terms are taken directly from the Cumulative Index volumes of CCA. They are directly searchable but cannot be printed. Significant words from these terms are also directly searchable in the Text (TX) field, but they cannot be printed. Note that index terms in CCALINE are not taken from Medical Subject Headings.

(LA) The language in which the document is written is a searchable field. It is usually entered as a three-letter abbreviation. For example, French language is FRE, German language is GER. English is searchable both as a one-letter abbreviation and as a three-letter abbreviation. These two forms should be ored together in search statements as follows: CARCINOGENESIS AND E OR CARCINOGENESIS AND ENG.

(SO) The source field consists of the name of the source journal, volume number, pagination and publication year. The journal name is searchable as an abbreviation. Journal abbreviations are those used in the List of Journals Indexed in Index Medicus, Abbreviation Listing. If a journal is not listed in LJI, abbreviations are derived from one of two other sources: 1) the publication World Medical Periodicals for volumes of CCA prior to and including volume 12, or 2) the publication International List of Periodical Title Word Abbreviations for volume 13 and following of CCA. Publication year is not searchable but the year of input to CCA is searchable as follows: To limit retrieval to a single input year, one would type the following: SCIENCE AND 1972 THRU 1972 To retrieve citations for a range of input years (1969-1972) one would type the following: SCIENCE AND 1969 THRU 1972 Note that the first two digits of the year number i.e. 19-- are optional and need not be typed.

(TI) The full title of the document is printable, but searchable only by using the STRINGSEARCH strategy. Individual word or word fragments are included in the text (TX) category and are directly searchable. See the Text field (TX) below.

(TX) All words in the title, abstract and index-term fields are collected and processed according to term control rules, that is, Rules of term generation and Rules of term deletion. Rules of term generation are applied to those candidate terms before Rules of term deletion are applied. These rules allow qualified words to enter the text field. Simply, the Rules of term deletion exclude words which would interfere with program operation and the Rules of term generation include all other qualified, pertinent words and word fragments under consideration.

A listing of "stopwords" is included at the end of this article. Words appearing on this list do not qualify as text words and should not be searched. After applying the Rules of term generation and the Rules of term deletion, the resulting words and word fragments constitute the text field (TX) which is directly searchable, but not printable.

OTHER CONVENTIONS AND SOURCES OF INFORMATION

In preparing the data base for volumes 8-13 of Cancer Chemotherapy Abstracts certain conventions have been followed.

1. Superscripts and subscripts are retained and printed out on the same line as other characters.
2. Greek characters have been spelled out in Roman caps.
3. Certain frequently occurring words and phrases have been abbreviated in the data base abstracts. These abbreviations are the same used in the printed version of Cancer Chemotherapy Abstracts.

An on-line description of the data base may be obtained by entering ELHILL and typing "FILE CCALINE" and then inputting "EXPLAIN DATA BASE" or "EXPLAIN UNIT RECORD".

Information on file content and search strategy may be obtained by contacting Mr. Samuel Tancredi or Mr. Richard Amacher, International Cancer Research Data Bank (ICRDB) Program, National Cancer Institute, 9000 Rockville Pike, Bethesda, Maryland, 20014. Phone: 301/496-2713.

For problems which may arise in accessing the data base, contact Ms. Grace McCarn, MEDLARS Management Section, National Library of Medicine, 8600 Rockville Pike, Bethesda, Maryland, 20014. Phone: 301/496-6193.

STOPWORD LIST FOR CCALINE IN ELHILL

A	CC	IMMEDIATELY	OFT	SOON	WHAT
ABOUT	DID	IN	OFTEN	SUCH	WHEN
AGAIN	DO	INDEED	ON	THAN	WHENCE
ALMOST	DOES	INTO	ONE	THAT	WHERE
ALREADY	DOING	IS	ONLY	THE	WHEREAS
ALSO	DONE	IT	ONTO	THEIR	WHEREBY
ALTHOUGH	ELSE	ITS	OR	THEIRS	WHICH
ALWAYS	ENOUGH	ITSELF	OUGHT	THEM	WHILE
AN	ETC	JUST	OUR	THEN	WHO
AND	EVER	KEEP	OUT	THENCE	WHOM
ANOTHER	EVERY	KEPT	OVERALL	THERE	WHOSE
ANYONE	FOR	KG	PLEASE	THEREFORE	WHY
ARE	FORTH	LEST	POSSIBLE	THESE	WITH
ARISE	FROM	LET	PROBABLY	THEY	WITHOUT
AROSE	GETS	MADE	PROMPT	THIS	WOULD
AS	GIVEN	MCG	PROMPTLY	THOSE	YET
ASIDE	GIVING	MERELY	PROPERLY	THOUGH	
AT	GO	MG	QUICKLY	THREE	
AWAY	GONE	MIGHT	QUITE	THROUGHOUT	
BE	GOT	ML	RATHER	THUS	
BECAME	HAD	MOSTLY	REALLY	TO	
BECAUSE	HAS	MUST	REGARDING	TOO	
BECOME	HARDLY	NEARBY	REGARDLESS	TWO	
BECOMES	HAVE	NEARLY	SAID	UNLESS	
BEEN	HAVING	NECESSARILY	SEE	UNTIL	
BEING	HENCE	NEXT	SEEM	UNTO	
BUT	HERE	NO	SEEN	UP	
BY	HEREIN	NOR	SHALL	UPON	
CAME	HITHER	NOTED	SHOULD	VERY	
CAN	HOW	NOW	SINCE	WAS	
CANNOT	IF	OF	SO	WERE	

SLIDE/TAPE SETS -- MEDLARS AND MEDLINE

Laura Eisenberg
Bibliographic Services Division, NLM

Two new units in a series of audiovisual products on MEDLARS and MEDLINE being developed by the National Library of Medicine are now available for purchase. Both presentations are slide/tape sets designed for use by the staff and patrons of health science libraries, as self-instructional tools, or as teaching aids in workshops on the MEDLARS system.

MEDLINE-IN-CONTEXT -- (S-3137-X) -- a 12-minute discussion on the appropriate use of MEDLINE as a reference tool, placing it in the context of other indexing and abstracting services by comparing their relative strengths and weaknesses.

MEDLARS: CAPABILITIES & LIMITATIONS -- (S-3136-X) -- an 18-minute presentation on the factors which may affect the success or failure of a search in a coordinate indexing retrieval system.

These packages have been peer-reviewed by MEDLINE and MEDLARS analysts throughout the world, and are used as teaching tools in NLM's three-week On-Line Services Training Classes.

The cost of each unit is $7.00. They are not available for loan, rental or preview. The audiotapes are available in 1/8 inch cassettes or 1/4 inch reel format. Be sure to specify the type desired. Please direct your orders to:

NATIONAL AUDIOVISUAL CENTER (GSA)
Sales Branch
Washington, D.C. 20409

For information on other audiovisual packages in this series, see the April 1974 and June 1974 issues of the Technical Bulletin.

MEDLINE TRAINEES AT UCLA, MAY 1, 1974

The University of California Biomedical Library, Los Angeles held its thirteenth MEDLINE Training Class May 1 through May 16, 1974. The following people attended:

Linda Angold	Sacramento Medical Center Medical Library Sacramento, California
Dorothea Bennett	Veterans Administration Hospital Medical Library Martinez, California
June Engstrom	Huntington Memorial Hospital Health Sciences Library Pasadena, California
Frieda Oxman	Veterans Administration Center Medical Research Library Los Angeles, California
Margaret Quintana	University of Colorado Medical Center Library Denver, Colorado
Joan Saunders	University of the Pacific Health Sciences Library San Francisco, California
Sherrilynne Shirley	UCLA Biomedical Library Brain Information Service Los Angeles, California
Eunice Ting	UCLA Biomedical Library Acquisitions Los Angeles, California

MeSH ARTICLE ERRATUM

The title of the article on page 12 of the August 1974 issue of the Technical Bulletin (No. 64) should read "Announcement of 1975 MeSH Publications", and the first line of the article should also read "1975 MeSH publications".

NEW SERIALS ANNOUNCEMENT - AUGUST 1974
Serial Records, Technical Services Division, NLM

The following substantive serial titles were received or ordered by the Serial Records and Binding Section during the month of August. An asterisk (*) next to the title indicates that an issue has actually been received in the library. The list is offered as an early announcement. Information provided is not authorized NLM cataloging data.

ADVANCES IN RADIOLOGICAL PROTECTION
1, 1975- -
Pergamon Press, Elmsford, New York

AESTHETHIC, RECONSTRUCTIVE AND FACIAL PLASTIC SURGERY
1, 1974- -
Plastic Surgical Associates, Brookline, Massachusetts

ARTERY
1, 1974- -
Hubbard Industries, Leonidas, Michigan

BIOELECTROCHEMISTRY AND BIOENERGETICS
1, 1974- -
Birkhauser Verlag, Basel, Switzerland

*CANINE PRACTICE
1, 1974- -
Veterinary Practice Publishing Co., Santa Barbara, California

CATHETERIZATION AND CARDIOVASCULAR DIAGNOSIS
1, 1974- -
Alan R. Liss, New York, New York

CLINICS IN OBSTETRICS AND GYNAECOLOGY
1, 1974- -
W. B. Saunders, Philadelphia, Pennsylvania

CURRENT CLINICAL CHEMISTRY
1, 1974- -
Pergamon Press, Elmsford, New York

HEALTH CARE DIMENSIONS
1, 1974- -
F. A. Davis, Philadelphia, Pennsylvania

*INTERNATIONAL CONTACT LENS CLINIC
1, 1974- -
Professional Press, Chicago, Illinois

*JOURNAL OF ALTERED STATES OF CONSCIOUSNESS
1, 1973- -
Baywood Publishing Co., Farmingdale, New York

JOURNAL OF CANCER BIOCHEMISTRY AND BIOPHYSICS
1, 1974- -
Gordon and Breach, New York, New York

MOLECULAR ASPECTS OF MEDICINE
1, 1975- -
Pergamon Press, Elmsford, New York

PHARMACOLOGY AND THERAPEUTICS. PART A. CHEMOTHERAPY
1, 1975- -
Pergamon Press, Elmsford, New York
Supersedes in part INTERNATIONAL ENCYCLOPEDIA OF PHARMACOLOGY AND THERAPEUTICS

PHARMACOLOGY AND THERAPEUTICS. PART B. GENERAL AND SYSTEMATIC PHARMACOLOGY
1, 1975- -
Pergamon Press, Elmsford, New York
Supersedes in part INTERNATIONAL ENCYCLOPEDIA OF PHARMACOLOGY AND THERAPEUTICS

PHARMACOLOGY AND THERAPEUTICS. PART C. CLINICAL PHARMACOLOGY AND THERAPEUTICS
1, 1975- -
Pergamon Press, Elmsford, New York
Supersedes in part INTERNATIONAL ENCYCLOPEDIA OF PHARMACOLOGY AND THERAPEUTICS

PHOTOCHEMICAL AND PHOTOBIOLOGICAL REVIEWS
1, 1975- -
Pergamon Press, Elmsford, New York

POPULATION AND ENVIRONMENT
1, 1975- -
Pergamon Press, Elmsford, New York

PRIMARY CARE: CLINICS IN OFFICE PRACTICE
1, 1974- -
W. B. Saunders, Philadelphia, Pennsylvania

*PUBLIC HEALTH REPORTS
89 no. 4, 1974- -
U. S. Dept. of HEW, Rockville, Maryland
Continues HEALTH SERVICES REPORTS

RADIOASSAY NEWS
1, 1974- -
Scientific Newsletters, Irvine, California

TETRAHEDRON REPORTS IN ORGANIC CHEMISTRY
1, 1975- -
Pergamon Press, Elmsford, New York

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of the

Library Component of the Biomedical Communications Network

No. 66 OCTOBER 1974

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U.S. DEPARTMENT OF HEALTH, EDUCATION, AND WELFARE
Public Health Service
National Institutes of Health

LIBRARY NETWORK/MEDLARS TECHNICAL BULLETIN
of the
Library Component of the Biomedical
Communications Network

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The LIBRARY NETWORK/MEDLARS TECHNICAL BULLETIN is issued monthly by the Office of the Associate Director for Library Operations.

JOURNAL CITATION DATA BASES

MEDLINE and SDILINE were updated with November 1974 citations as of October 2 at NLM and SUNY. The sizes, Index Medicus date ranges, and Entry Date ranges of the data bases are given below.

MEDLINE (Jan 72 - Nov 74) - 651,389
(Entry Dates: 711130 to 741013)
SDILINE (Nov 74) - 20,519
(Entry Dates: 740914 to 741013)
MEDFILE (Jan 70 - Dec 73) - 533,035
(Entry Dates: 691126 to 731116)
COMPFILE (Jan 70 - Dec 73) - 351,891
(Entry Dates: 691126 to 731116)

Important: November SDILINE is available at NLM under both ELHILL 2 and ELHILL 3. This is the last month in which SDILINE will be available under ELHILL 2.

ON-LINE TECHNICAL NOTES

PLEASE QUERY THE NLM/ON-LINE NEWS FILES DAILY FOR SPECIAL NOTICES AND MESSAGES

VARIABLE CHARACTER SYMBOL (#) AND, EMBEDDED

The variable character symbol is the pound sign or hash mark (#). It substitutes for one and only one character in any position within a term. For example, BENZ#NE will retrieve BENZENE OR BENZINE. The variable character symbol cannot be substituted for the absence of a character, but it may be substituted for a space.

In files which use the Medical Subject Headings vocabulary the variable character symbol should be used to disguise an embedded AND in a compound term. For example, the MeSH term WOUNDS AND INJURIES should be entered as WOUNDS A#D INJURIES. Unless the AND is disguised, the computer will interpret it as the logical operator AND which is used to combine search terms and the user will receive the message:

NP--NO POSTINGS (WOUNDS)
NP--NO POSTINGS (INJURIES)

Embedded AND's should be disguised in all search statements including those using the "FIND" command. However, embedded AND's should not be disguised when a compound term is used within commands such as "MESHNO" and "TREE".

1975 INTERIM MeSH TOOLS

The National Technical Information Service (NTIS) has encountered delays in printing and filling orders for the 1975 Interim MeSH Tools. These include:

Medical Subject Headings - Alphabetic List, 1975 (Interim Edition) (PB 234-189, supercedes PB 221-326)

Medical Subject Headings - Tree Structures, 1975 (Interim Edition) (PB 234-190, supercedes PB 221-327)

These tools should be available in November. The next issue of the Technical Bulletin will contain information on searching the new Minor Descriptors, Entry Terms, etc. of the MEDLARS II vocabulary.

TITLE ABBREVIATIONS ELHILL 3, AND DESCRIPTORS

When terms which are journal Title Abbreviations and which are also Main Headings, e.g., TOXICOLOGY, are searched, a multi-meaning message will result unless the category qualifier (MH) is used. When a term that is considered an 'Entry Term' under ELHILL 3 (i.e., the left-hand side of a See Cross Reference) and which is also a journal Title Abbreviation (for example: CANCER) is searched, the resultant postings will be for the journal unless the category qualifier (MH) has been used. If a topical qualifier (subheading) has been searched with an entry term, the resultant postings will be for the Major Descriptor (with the specified subheading) to which the 'Entry Term' has been "mapped" by the computer.

NEWS FILE, ""FILES

A new News File is now available on the NLM computer which contains a listing of each on-line data base available along with the number of records in the file, the MEDLARS entry dates, and the calendar dates covered. This News File may be accessed on the NLM computer after any SS /C? USER: cue with the command ""FILES.

```
SS 4/C?
USER:

""FILES          CR
```

For further information on accessing the various News Files available, see the September 1974 issue of the Technical Bulletin (Page 3).

HOURS OF SERVICE

Below are the new hours of service at NLM and SUNY. Note that the NLM system is not available on Tuesday mornings.

	MONDAY	TUESDAY	WEDNESDAY	THURSDAY	FRIDAY
NLM ELHILL 3	3am - 5pm	12 noon - 10pm	3am - 5pm	3am -5pm	3am -5pm
ELHILL 2	9am - 5pm	12 noon - 10pm	9am - 5pm	9am -5pm	9am -5pm
SUNY	9am - 7pm	9am -5pm	9am - 7pm	9am-10pm	9am -5pm

The above coverage is based on Eastern Time. A more detailed listing which includes which files are available on which day may be obtained by accessing the NLM News File ""HOURS.

TYMSHARE PROBLEMS, NODE NUMBER & TYMSAT PORT NUMBER

Many users accessing the system via the Tymshare Network will notice that a six digit number is being printed out at log-in time (-XXXX-XX). These are the number of the node and Tymsat port to which you have been connected. When reporting problems with the Tymshare Network to MEDLARS Management Section, please refer to this number, if it appears during login, so that if we find it necessary to contact Tymshare it will be easier for them to pinpoint the problem.

```
PLEASE LOG IN:
PASSWORD:
; MLDXYZØ1

-XXXX-XX
```

Eventually, all users should receive this six digit number during login.

PLACE OF PUBLICATION (PL)

When searching on a geographic Main Heading, you will receive a multi-meaning message if there are citations in the data base in which the Place of Publication (PL) is the same as the Main Heading being searched unless you use a category qualifier. Thus, when searching on countries etc., if the term being searched is to be considered a Main Heading, use the qualifier (MH) in the search statement. If you are searching on the Place of Publication, use the qualifier (PL). If neither is used, you will still have the option of responding to the multi-meaning message.

SDILINE NLM, ELHILL 3

SDILINE became officially available under the ELHILL 3 programs on October 21, 1974. At that time SDILINE was operational at SUNY under ELHILL 3 and at NLM under ELHILL 2 and ELHILL 3.

MAIN HEADINGS (TRACINGS), ELHILL 3

Note that the Main Headings (tracings) for citations in the ELHILL 3 files are no longer sorted in alphabetical order.

HOLIDAY HOURS

The following is a list of holidays through New Year's Day, indicating which system will or will not be available.

		SYSTEM AVAILABLE	
		NLM	SUNY
November 28, 1974	Thanksgiving Day	NO	NO
December 25, 1974	Christmas	NO	NO
January 1, 1975	New Years Day	NO	NO

ANOTHER USE OF STRINGSEARCH

Paul Hanson
Lane Library, Stanford University Medical Center

The Time-Overflow response of ELHILL 3 may sometimes elicit an emotion akin to decerebrate rage. One acknowledges the wisdom and equity of programs that distribute an unusually onerous task (such as performing an explosion on the entire Neoplasm category) over more than one queue-cycle. It is probably unreasonable to suppose that the forty-five other on-line users would smile beneficently if I input in a single search statement EXPLODE (MESHNO NEOPLASMS) AND EXPLODE (MESHNO PSYCHIATRY) AND HUMAN AND ENG and the computer were programmed to carry this out without interruption.

On the other hand, if my subject search has selected sixty references and my patron wants only citations to English articles about man, I would inwardly snarl at the prospect of asking a computer controlled by ELHILL 3 programs to further refine my bibliography by the usual means. Even if this could be executed with a picosecond delay to all interacting users, the awareness that the computer must match sixty numbers against hundreds of thousands gnaws at one's sense of efficiency.

There is an alternate way that is equivalent to this kind of logical intersection ("ANDING") between one retrieval set and certain huge sets like those published in English or pertinent to man, and it employs Stringsearching. Stringsearching in this context is a particular boon for these two reasons: one can direct the computer in a single phrase to examine two or more fields for specified segments of words and the same logical expressions accepted in an ordinary search statement are still valid.

These Stringsearches, for example, are palatable and meaningful to the MEDLINE programs:

1. TS (LA) :ENG: OR :GER: OR :FRE: OR :ENGLISH ABSTRACT: (MH)

2. TS (MH) :HUMAN: AND :ENG: (LA)

This, too, works:

3. TS (MH) :HUMAN: AND :ENG: (LA) OR :HUMAN: AND :ENGLISH ABSTRACT:

Observe that the field qualifier in the initial position of a Stringsearch statement applies to all of the intercolonic elements that follow it. However, it is overridden when an element is immediately succeeded by a different designator of field. In the last example above, "(MH)" operates upon all the truncations other than ":ENG:", which is the only one requalified to "(LA)".

Remember that in ELHILL 3 the language field comprises only three characters. One can input TS (LA) :ENGLISH:, but this is tantamount to an input of TS (LA) :HAPPY DAYS:. They are equally absurd to the computer, define null sets, and no postings result. Similarly, the searcher must be especially careful about his spelling. The computer will never reject one's input of nonsensical

sequences of characters as it does with misspelled Main Headings.

If the number of unit records to be Stringsearched is sufficiently small, the computer can complete its task within a single cycle. Furthermore, the number of cycles required will be directly proportional to the quantity of unit records to be Stringsearched.

1975 INDEXING ORIENTATION

Thelma Charen
Index Section, NLM

A series of indexing workshops was held recently at the National Library of Medicine by the Index Section, Bibliographic Services Division, in anticipation of 1975 indexing using the 1975 INTERIM MeSH.

The first orientation for NLM Index Section personnel was held on September 27; the second, a three-day orientation and workshop, was held for out-of-town Contract Indexers October 2 - 4; and the third, for in-town Indexers on October 11.

A 70-page packet was prepared especially for the orientation and workshop, "1975 INDEXING ORIENTATION", with an additional brochure of exercises (questions and answers) on the use of the new MeSH, the Trees and new Qualifiers (née Subheadings). The packets were distributed also to foreign MEDLARS Centers engaged in quid-pro-quo indexing.

The principal 1975 indexing changes discussed were (1) the new Entry Vocabulary, (2) Trees replacing Categories in indexing, (3) the new Handstamp showing special fields for abstracting, foreign center indexing and Special Lists, (4) the new use of issue number in the reference citation and the new use of full pagination replacing passim, (5) uniform handling of particles in authors' names, (6) the new use of the Check Tag ANIMAL, (7) inputting of abstracts (to be implemented later in 1975), (8) inputting of author affiliations (to be implemented later in 1975), (9) new rules for Special List indexing, and finally, (10) the conversion of the language and title-word abbreviation JAP to JPN, to conform to the Library of Congress usage.

Practices affecting Searchers center about authors, Check Tags and Special List indexing.

Effective immediately, all particles (van, von, de, do, dos, dela, etc.) in authors' names will precede the surname: Aubiac F d' in 1974 and before will now appear as d'Aubiac F or D'Aubiac F - capitalization depending upon the text. In these days of visiting scientists and population mobility other ways, the Index-Catalogue principle of form-of-name-tells-his-origin no longer holds up or is vital. Uniformity and regularity seem greater desiderata bibliothecally at the moment.

At the request of Searchers, Indexers were previously asked to check an animal tag when they indexed under the specific genus of that animal. Indexers were regularly, thus, checking MONKEYS when indexing MACACA. Since Searchers prefer to explode MONKEYS rather than depending upon the Indexers' additional work, we are foregoing the double-checking. From now on, MACACA will be indexed under MACACA and the tag MONKEYS will NOT be checked. Likewise MICE, INBRED STRAINS and all the specific indentions will be so indexed and MICE, the Check Tag, will NOT also be checked.

Effective immediately all SPECIAL LIST indexing will have all the earmarks of standard INDEX MEDICUS indexing: articles will be indexed in depth if so required by priority designation, will be indexed with IM and NIM indicators, will be indexed with Check Tags. Given a Special List Indexed Citation Form (data form) an observer will not be able to distinguish a Special List piece from a standard presentation from appearance and coverage alone.

MEDLINE TRAINEES AT NLM, SEPTEMBER 16, 1974

The nineteenth NLM MEDLINE Training Class was held September 16 - October 4, 1974. The following people attended:

Julita Awkard	Florida A & M University School of Pharmacy Library Tallahassee, Florida
Linda Baum	National Library of Medicine Library Associate Bethesda, Maryland
Dorothy Binkley	Wesley Medical Center Medical Library Wichita, Kansas
Lois Burdick	Florida State University Library, Science-Technology Division Tallahassee, Florida
Barbara Burhans	National Library of Medicine Reference Services Division Bethesda, Maryland
Cynthia Burhans	Office of the Assistant Secretary for Health, HEW Parklawn Health Library Rockville, Maryland
Bonnie Cannard	Union Memorial Hospital Finney Memorial Medical Library Baltimore, Maryland

Carolyn Davis	National Library of Medicine Library Associate Bethesda, Maryland
Sandy Echt	Texas College of Osteopathic Medicine Library Fort Worth, Texas
Jan Farmer	National Library of Medicine Library Associate Bethesda, Maryland
Martha Houston	Wichita State University Library/AV Center Wichita, Kansas
Louise Lewis	Center for Disease Control Library Atlanta, Georgia
Gertrude Lorber	Geisinger Medical Center Medical Library Danville, Pennsylvania
Cicely Marks	Veterans Administration Central Office Library Washington, D.C.
Virginia White	National Library of Medicine Library Associate Bethesda, Maryland

MEDLARS EUROPEAN CONFERENCE 1975

The 1975 MEDLARS European Conference will be held in York, England, on April 28th, 29th and 30th, 1975. For further information contact:

Dr. A. J. Harley
British Library
Lending Division
Boston Spa Wetherby Yorkshire LS23 7BQ
United Kingdom
Telex 557381 Telephone 0937 (Boston Spa) 843434 ext

MEDLINE TRAINEES AT NLM, NOVEMBER 4, 1974

The twentieth NLM On-Line Service (MEDLINE) Training Class was held November 4 - 22, 1974. The following people attended:

Frank Barile	National Institutes of Health NIH Library Bethesda, Maryland
Elsie Cerutti	National Bureau of Standards Library Washington, D.C.
Harold Chandler	University of Tennessee Medical School Library Memphis, Tennessee
Jo Ann Chieppa	Walter Reed Army Medical Center Medical Library Washington, D.C.
Patti Corbett	Yale University Medical Library New Haven, Connecticut
Shirley Caventa	U.S. Department of Agriculture National Agricultural Library Beltsville, Maryland
Anita Loscalzo	Hahnemann Medical College Library Philadelphia, Pennsylvania
Sandra Matthews	Armed Forces Radiobiology Research Institute National Naval Medical Center Bethesda, Maryland
Mary Metter	University of North Carolina Health Sciences Library Chapel Hill, North Carolina
Melda Page	Veterans Administration Hospital Medical Library Togus, Maine
Benjamin Payne	Veterans Administration Hospital Medical Library Wilmington, Delaware
Natalia Stahl	W. Alton Jones Cell Science Center Library Lake Placid, New York

PUBLICATION NOTES

Roger Gilkeson
Office of Inquiries and Publications Management, NLM

MEDLINE Tools Available from NTIS

The publications listed below are available at the prices quoted from:

National Technical Information Service
U.S. Department of Commerce
5285 Port Royal Road
Springfield, Virginia 22151

When ordering, please include both title and accession number, as well as the superseded accession number if applicable. A check or money order payable to NTIS should be sent with the order. These publications are available in microfiche for $2.25 per title. Non-U.S. purchasers must include an additional $2.50 ($1.50 for microfiche orders) to cover handling and mailing for each item; remittance should be in the form of check drawn on an American bank or Canadian or international money order. Deposit accounts may be established by sending a minimum of $25.00 to NTIS and asking that a deposit account be set up in your name.

Accession No.	Publication Title	Price Per Paper Copy
PB-207-177	MEDLARS Training Program: MEDLINE Training Syllabus	$7.50
PB-207-181	MEDLARS Indexing Manual	$12.25
PB-212-064 (Supersedes PB-207-175)	MEDLARS Indexing and Searching Aids (includes "Hints for Index Medicus Users," "New Main Headings for 1972," "Alphabetic List of MeSH Provisional Headings," "MEDLARS Indexing of Eponymous Syndromes," and "MEDLARS Indexing of Neoplasms.")	$7.50
PB-219-054	Cumulated List of New Medical Subject Headings, 1963-1973	$8.75
PB-234-189 (Supersedes PB-221-326)	Medical Subject Headings Alphabetical List, 1975 (Interim edition) (not to be confused with Medical Subject Headings sold by GPO as part 2 of January issue of Index Medicus; NTIS version is designed for indexers and searchers, and contains geographic terms, provisional headings, and helpful notes)	$9.50

Accession No.	Publication Title	Price Per Paper Copy
PB-234-190 (Supersedes PB-221-327)	Medical Subject Headings Tree Structures, 1975 (interim edition)	$11.25
PB-221-463 (Supersedes PB-214-334)	Permuted Medical Subject Headings, 1974	$17.25
PB-222-991 (Supersedes PB-212-067)	MEDLINE Reference Manual (also includes instructions on the use of SERLINE, CATLINE, and SDILINE)	$7.50
PB-226-906/AS (Supersedes PB-212-065)	Medical Subject Headings: New Main Headings and Provisionals, 1974	$7.25

1974 Cumulated Index Medicus

Advance orders are now being accepted by GPO for the 1974 edition of Cumulated Index Medicus, volume 15. The 1974 CIM is scheduled to appear in April 1975, but it is advisable to place your order early to receive delivery by May or June. The 1974 CIM will appear in eight volumes. The cost is $188.80 domestic, $236.00 foreign. The GPO classification number is HE 20.3612/3:15 and the GPO stock number is S/N 1752-00158.

1974 NMAC Catalog

Orders are now being accepted by the Superintendent of Documents for the 1974 edition of the National Medical Audiovisual Center Catalog. The new catalog, listing about 800 16mm motion pictures available on short-term loan for professional health sciences educational purposes, sells for $3.05 per copy ($3.80 foreign). Note: This year's orders are being handled by the Public Documents Department, U.S.G.P.O., Washington, D.C. 20402, and not by the Public Documents Distribution Center in Philadelphia. The GPO classification number is HE 20.3608/4:974; the stock number is S/N 1752-00156.

NEW SERIALS ANNOUNCEMENT - SEPTEMBER 1974
Serial Records, Technical Services Division, NLM

The following substantive serial titles were received or ordered by the Serial Records and Binding Section during the month of September. An asterisk (*) next to the title indicates that an issue has actually been received in the library. The list is offered as an early announcement. Information provided is not authorized NLM cataloging data.

*AANA JOURNAL
42, 1974--
American Association of Nurse Anesthesists, Chicago Illinois
Continues JOURNAL OF THE AMERICAN ASSOCIATION OF NURSE ANETHESISTS

*ACTA RHEUMATOLOGICA PORTUGUESA
1, 1973--
Sociedade Portuguesa de Reumatolgica, Lisbon, Portugal

*ACTUALIDADES de la MEDICINA VETERINARIA
1, 1972--
Centro de Informacion Cientifica, Havana, Cuba

*ADVANCES IN EDUCATIONAL PSYCHOLOGY
1, 1973--
University of London Press, London, England

AMERICAN JOURNAL OF THERAPEUTICS AND CLINICAL REPORTS. CASES AND COMMENTS
1, 1974--
Alan R. Liss, New York

*ANAIS do INSTITUTO de HIGIENE e MEDICINA TROPICAL
1, 1973--
Instituto de Higiene e Medicina Tropical, Lisbon, Portugal
Supersedes ANAIS da ESCOLA NACIONAL de SAUDE PUBLICA e de MEDICINA TROPICAL

*ANALES de la FUNDACION PUIGVERT UROLOGIA NEFROLOGIA ANDROLOGIA
1, 1971--
Fundacion Puigvert, Barcelona, Spain

*BEHAVIOR SCIENCE RESEARCH
9, 1974--
Behavior Science Research, New Haven Connecticut
Continues BEHAVIOR SCIENCE NOTES

BRITISH JOURNAL OF OBSTETRICS AND GYNAECOLOGY
82, 1975--
Royal College of Obstetricians and Gynaecologists, London, England
Will continue JOURNAL OF OBSTETRICS AND GYNAECOLOGY OF THE BRITISH COMMONWEALTH

COMPUTER TECHNOLOGY AND BIOMEDICINE ABSTRACTS
1, 1975--
Synthesis Communications, New York

CURRENT PROBLEMS IN DIAGNOSTIC RADIOLOGY
5, 1975--
Yearbook Medical Publishers, Chicago, Illinois
Will continue CURRENT PROBLEMS IN RADIOLOGY

CLINICAL LABORATORY REFERENCE
1st. ed, 1974--
Medical Economics Co., Oradell, New Jersey

*INDIAN JOURNAL OF CLINICAL PSYCHOLOGY
1, 1974--
Indian Association of Clinical Psychologists, Chandigarh, India

*INNERE MEDIZIN
1, 1974--
Verlag Gerhard Witzstrock, Baden-Baden, Germany

JOURNAL OF CLINICAL MICROBIOLOGY
1, 1975--
American Society for Microbiology, Washington, D.C.

JOURNAL OF RHEUMATOLOGY
1, 1974?--
University of Toronto Press, Toronto, Canada

*PROCEEDINGS OF THE OBSTETRICAL AND GYNAECOLOGICAL SOCIETY, SINGAPORE
1, 1970?--
Obstetrical and Gynaecological Society, Singapore

*ROENTGEN TECHNOLOGY
1, 1974--
Indian Association of Radiological Technologists, Madras, India

*REVISTA BRASILEIRA de SAUDE OCUPACIONAL
1, 1972?--
Fundacao Centre Nacional de Seguranca, Higiene e Medicina do Trabalho,
Sao Paulo, Brazil

NEW SERIALS ANNOUNCEMENT - OCTOBER 1974
Serial Records, Technical Services Division, NLM

The following substantive serial titles were received or ordered by the Serial Records and Binding Section during the month of October. An asterisk (*) next to the title indicates that an issue has actually been received in the library. The list is offered as an early announcement. Information provided is not authorized NLM cataloging data.

ANALES OTORRINOLARINGOLOGICOS IBERO-AMERICANOS
1, 1974- -
Barcelona, Spain

APPLIED NEUROPHYSIOLOGY
38, 1975?- -
Karger, Basel, Switzerland
Will continue Confinia Neurologica

BIOSCIENCES COMMUNICATIONS
1, 1975- -
Karger, Basel, Switzerland

CHILD'S BRAIN
1, 1975- -
Karger, Basel, Switzerland

CLINICAL AND EXPERIMENTAL OBSTETRICS AND GYNECOLOGY
1, 1974- -
Padua, Italy

CUMITECHS
1, 1974- -
American Society for Microbiology, Washington, D.C.

CURRENT PHYSICS INDEX
1, 1975- -
American Institute of Physics, New York, New York

*CURRENT TOPICS IN CLINICAL CHEMISTRY
1, 1974- -
John Wiley, New York, New York

DRUG AND ALCOHOL DEPENDENCE
1, 1975- -
Elsevier Sequoia, Lausanne, Switzerland

EUROPEAN UROLOGY
1, 1975- -
Karger, Basel, Switzerland

HEALTH PERSPECTIVES
1, 1973/74- -
Consumer Commission of the Accreditation of the Health Services,
New York, New York

*JOURNAL OF THE AMERICAN REGISTRY OF CLINICAL RADIOGRAPHY TECHNOLOGISTS
19, 1974- -
American Radiography Technologists, Enid, Oklahoma
Continues Journal of the Clinical Radiography Technologists

JOURNAL OF THE AMERICAN VENEREAL DISEASE ASSOCIATION
1, 1974?--
Woodbine Publishers, Birmingham, Alabama

JOURNAL OF AUDITORY RESEARCH. SUPPLEMENT
1, 1974- -
Groton, Connecticut

JOURNAL OF MOLECULAR CATALYSIS
1, 1975- -
Elsevier Sequoia, Lausanne, Switzerland

JOURNAL OF PHYSICAL AND CHEMICAL REFERENCE DATA. SUPPLEMENT
1, 1974- -
American Chemical Society, Washington, D.C.

JOURNAL OF PREVENTIVE DENTISTRY
1, 1974- -
J. B. Lippincott, Philadelphia, Pennsylvania

JOURNAL OF STUDIES ON ALCOHOL
36, 1975- -
Rutgers University, New Brunswick, New Jersey
Will continue Quarterly Journal of Studies on Alcohol

MEDICAL ELECTRONIC SERVICE JOURNAL
1, 1974- -
MIESA, Dearborn Heights, Michigan

MOLECULAR AND CELLULAR ENDOCRINOLOGY
1, 1974- -
Elsevier, Amsterdam, Netherlands

*MONOGRAPHS ON LIPID RESEARCH
1, 1974- -
Plenum Press, New York, New York

NEUROPSYCHOBIOLOGY
1, 1975- -
Karger, Basel, Switzerland

*PAKISTAN JOURNAL OF OPHTHALMOLOGY
1, 1974- -
Mobile Eye Service Pakistan, Karachi, Pakistan

*PERSPECTIVES IN MEDICINE
4, 1974?- -
Karger, Basel, Switzerland
First three volumes unnumbered

PROSTAGLANDINS ABSTRACTS
1, 1974- -
IFI/Plenum, New York, New York

PSICHIATRIA DINAMICA
1, 1974- -
Casa Editrice L. Cappelli, Bologna, Italy

*REVISTA DE INVESTIGACIONES PECUARIAS
1, 1972- -
Universidad National Mayor de San Marcos, Lima, Peru

SCIENTIFIC PROCEEDINGS OF THE UNIGATE PAEDIATRIC WORKSHOP
1, 1974- -
Blackwell Scientific Publications, Oxford, England

*ZAHN-MUND- UND KIEFERHEILKUNDE MIT ZENTRALBLATT
62N6, 1974- -
John Ambrosius Barth, Leipzig, Germany
Continues Deutsche Zahn-, Mund- und Kieferheilkunde mit Zentralblatt

CHECK TAGS NOT IN MeSH

P.E. Pothier
MEDLARS Management Section, NLM

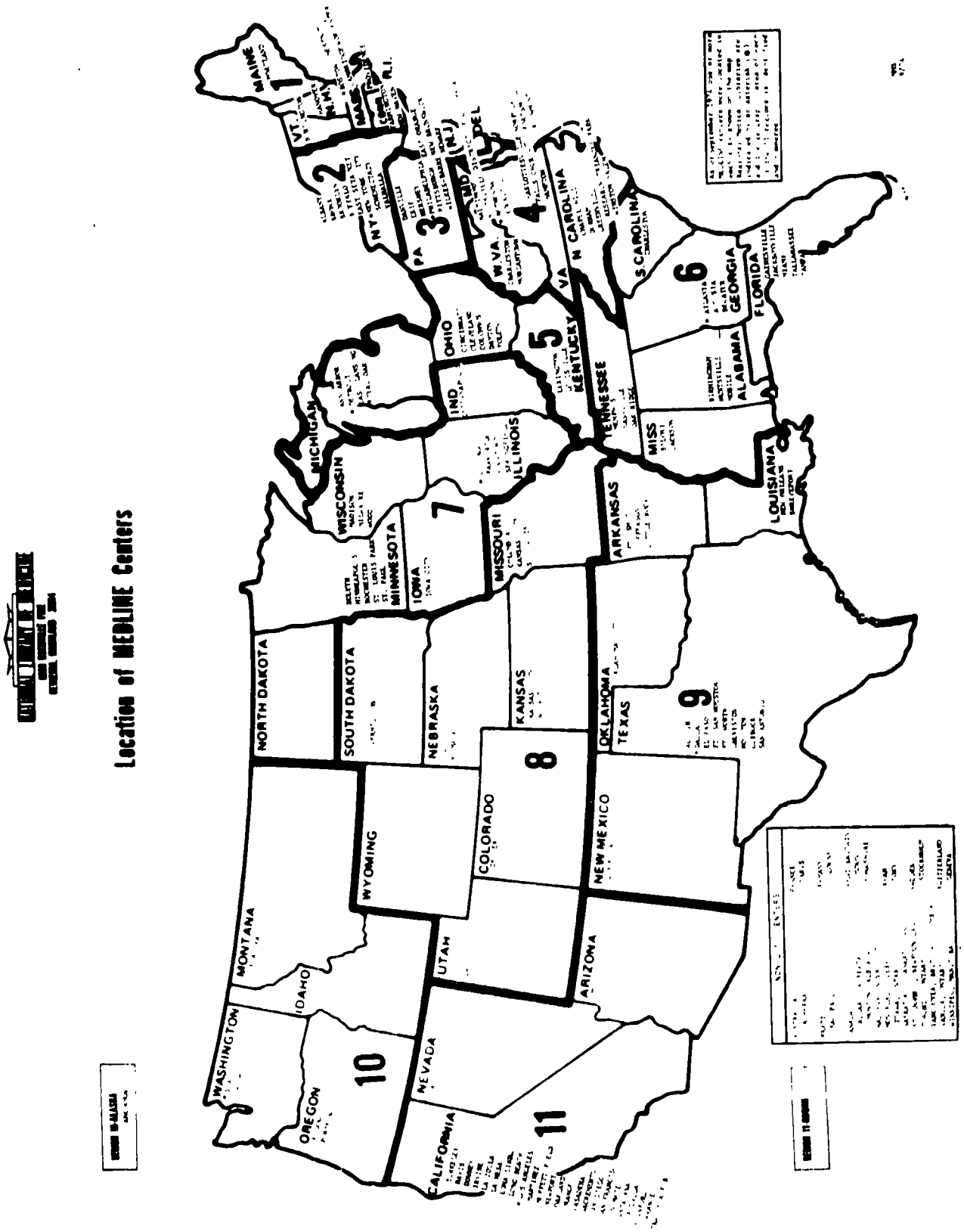
Indexers employ certain major descriptors to identify various aspects of articles which are routinely present. These descriptors are commonly called check tags. Forty-two such check tags are currently in use, and of these twenty-five are listed in MeSH and may appear in Index Medicus.

The remaining seventeen check tags cannot be found in MeSH. Since a knowledge of them is essential to efficient searching, they are presented here with a brief description of each.

ANIMAL	Since 1974 used for articles dealing with animals whether experimental, veterinary, or merely anatomical studies. Prior to 1974 the term ANIMAL EXPERIMENTS was used for these articles. ANIMAL EXPERIMENTS is mapped by the program to ANIMAL so the user need not concern himself with the change.
HUMAN	Since 1966 used for all articles involving humans except those dealing with sociology, politics and such subjects, which always deal with humans.
CLINICAL RESEARCH	For articles dealing with testing of drugs or technics on humans.
CASE REPORT	Since 1974 used for clinical and veterinary articles containing no material except the report of an interesting case. A substantive article containing illustrative cases is NOT a CASE REPORT. Prior to 1974 CASE REPORT was not used for veterinary case reports.
IN VITRO	Used for articles describing experiments or tests performed on human or animal tissue outside the body. Routine laboratory studies are NOT tagged IN VITRO. To qualify for the tag IN VITRO, the controlling factors of the experiment or test must be added to the specimen after it is put in the test tube.
MALE	Used for human or animal studies in which some or all of the subjects are male.
FEMALE	Used for human or animal studies in which some or all of the subjects are female.

COMPARATIVE STUDY	Since 1974 used for the comparison of any two or more concepts. Prior to 1974 the tag COMPARATIVE STUDY was restricted to comparisons of drugs, chemicals, procedures or technics.
REVIEW	Used for any article comprising a review of the recent literature on a subject.
HISTORICAL ARTICLE	Used for articles dealing with the history of a subject except those devoted exclusively to the life of an historical personage.
HISTORICAL BIOGRAPHY	Used for substantive articles dealing with persons deceased at least one year before the date of publication.
CURRENT BIOG-OBIT	Used for substantive obituaries or biographies of living persons.
ENGLISH ABSTRACT	Used since 1972 for foreign language articles which contain an abstract in English.
SPECIAL LIST DENTAL, SPECIAL LIST NURSING, SPECIAL LIST REPRODUCTION, SPECIAL LIST FOREIGN	Used for articles included in the Index to Dental Literature, the International Nursing Index, Population Sciences, and articles from selected foreign journals. All SPECIAL LIST tagged articles are included in MEDLINE; none are included in Index Medicus. Prior to 1975 indexing, SPECIAL LIST articles were not indexed with any other check tags. The searcher must remember that qualifying search statements with check tags such as HUMAN or an age group will eliminate all articles indexed for special lists prior to 1975 indexing. Since 1975 indexing, special list articles have the same check tags as Index Medicus articles.

For a more extensive discussion of check tags see the MEDLARS Indexing Manual and "1974 Indexing Orientation" by Thelma Charen in the Library Network/MEDLARS Technical Bulletin, no. 55, p.5.


Location of MEDLINE Centers
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R.I.
CONN.
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PA
N.J.
DEL.
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W.VA.
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MINNESOTA
IOWA
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ARKANSAS
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TEXAS
KANSAS
NEBRASKA
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COLORADO
NEW MEXICO
WYOMING
MONTANA
IDAHO
UTAH
ARIZONA
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LIBRARY NETWORK/MEDLARS TECHNICAL BULLETIN

of the

Library Component of the Biomedical Communications Network

No. 67 NOVEMBER 1974

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U.S. DEPARTMENT OF HEALTH, EDUCATION, AND WELFARE
Public Health Service
National Institutes of Health

LIBRARY NETWORK/MEDLARS TECHNICAL BULLETIN
of the
Library Component of the Biomedical
Communications Network

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The LIBRARY NETWORK/MEDLARS TECHNICAL BULLETIN is issued monthly by the Office of the Associate Director for Library Operations.

JOURNAL CITATION DATA BASES

MEDLINE and SDILINE were updated at NLM and SUNY with December 1974 citations on November 25. MEDFILE and COMPFILE have not been changed. The sizes, Index Medicus date ranges, and Entry Date ranges of the data bases are given below:

MEDLINE (Jan 72 - Dec 74) - 670,793
(Entry Dates: 711130 to 741118)
SDILINE (Dec 74) - 19,404
(Entry Dates: 741017 to 741118)
MEDFILE (Jan 70 to Dec 73) - 533,035
(Entry Dates: 691126 to 731116)
COMPFILE (Jan 70 to Dec 73) - 351,891
(Entry Dates: 691126 to 731116)

ON-LINE TECHNICAL NOTES

PLEASE QUERY THE NLM/ON-LINE NEWS FILES DAILY FOR SPECIAL NOTICES AND MESSAGES

NEW MEDLINE CHARGES, 2/1/75

A memorandum from the Associate Director of Library Operations, National Library of Medicine, regarding the new charging scheme to become effective February 1, 1975 has been mailed to all MEDLINE Centers. If your Center has not received this information, please contact MEDLARS Management Section.

SEARCH KEYS, SERLINE CATLINE

EXP (the abbreviation for EXPLODE), NOT, ALL, YES, and AND are always interpreted according to their special meanings in the general ELHILL search statement vocabulary. Therefore, they must be disguised when they occur at the beginning of a search key in one of the two ways described below:

a) The single variable character symbol (#) can be substituted for the last letter of the first element of the search key.

ALLERGIE UND ASTHMAFORSCHUNG
AL#/U/A

b) The variable character symbol (#) can be used in place of the first slash of the search key.

ALLERGIE UND ASTHMAFORSCHUNG
ALL#U/A

EXPERIMENTAL BRAIN RESEARCH
EXP#B/R

ARPA NETWORK

On November 1, 1974, the ARPANET started a testing phase whereby some users had to follow a login procedure requiring a Name Identifier and Password after the TIP connection was made. During the test phase, any Name Identifier and Password was accepted.

As of December 1, 1974, ARPA users are required to use specific Name Identifiers and Passwords. ARPANET users who have not received these should contact their local ARPA representative. The new login procedure will have no affect on the regular logon protocol for NBS port connections to the NLM system, which begins: @h 147 line feed...

WATS LINE, ROTARY

Some users have been assigned a toll-free WATS line by the National Library of Medicine for accessing the system. If this number seems to be malfunctioning, it may help to dial the next higher number on the rotary, i.e., 800-XXX-XX39. Whenever the WATS line becomes inoperable, MEDLARS Management Section should be notified as soon as possible.

SPECIAL LIST TITLES, POSTINGS

Articles indexed for Special Lists such as the Index to Dental Literature and the International Nursing Index may be retrieved in ELHILL 3 either by searching on the Main Headings (MH) SPECIAL LIST DENTAL or SPECIAL LIST NURSING, or by searching on the special list indicators (LI) D or N. However, the postings retrieved by these two methods are not the same due to the process of converting from the MEDLARS I to the MEDLARS II format. For example, the postings in MEDLINE through November are:

	POSTINGS
SPECIAL LIST DENTAL	13066
D (LI)	13654
SPECIAL LIST NURSING	17268
N (LI)	17206

Thus, at present, if the searcher wishes to retrieve everything indexed for these special lists, the Main Heading and the Special List Indicator should be ORed:

SPECIAL LIST DENTAL OR D (LI)
SPECIAL LIST NURSING OR N (LI)

TYMSHARE TELEPHONE NUMBERS

New Lines

Lausanne, Switzerland:	021-25-4358	1)	characters per second
" "	021-25-6634	3)	" " "
" "	021-25-6635	3)	" " "

The above lines are not on a rotary, so if the first is busy, dial the second.

Changed Numbers

Syracuse, N.Y.	315/476-5571
Harrisburg, Pa.	717/233-1647

"USERS", NLM

Upon login to the NLM ELHILL 3 system, the searcher is now provided automatically with the total number of users on the NLM computer, i.e., users accessing the MEDLINE/TOXLINE files plus the NLM in-house users who are processing on-line programming jobs on the computer. By executing the "USERS" command after any SS /C? USER: cue, the searcher can obtain the number of users on the ELHILL 3 or ELHILL 2 files, depending on which file he is accessing.

SDILINE, SUNY

The SDILINE file is now available to authorized MEDLINE users on the SUNY computer under the ELHILL 3 programs.

SYSTEM STATUS, INQUIRIES

All telephone inquiries relating to the operating status of the National Library of Medicine sponsored on-line files at NLM or SUNY, between the hours of 8:30 a.m. and 5:00 p.m. (Eastern Time), should be directed to MEDLARS Management Section in Bethesda, Maryland (301-496-6193). Inquiries about the operating status of either system during other hours may be directed towards the computer room of the system in question:

NLM Computer Room - 301/496-2734 - Bethesda, Md.
SUNY Computer Room - 518/474-2921 - Albany, N.Y.

Questions other than those relating to the operating status of the system should be held until the next working day and then presented to MEDLARS Management Section.

PRINT COMMANDS DEFAULT, ELHILL 3

There are three standard "PRINT" commands in ELHILL 3: "PRINT", "PRINT FULL", and "PRINT DETAILED". All "PRINT" commands will display, by default, all of the citations retrieved by the last search statement. The citations will be displayed 25 lines at a time, and the program will ask if you wish to continue printing with the CONTINUE PRINTING? message. If the program has not finished displaying all of the information for one unit record (citation) at the 25th line, it will complete that unit record before giving the CONTINUE PRINTING? message.

RANGING AND SDI's

Occasionally Centers find it necessary to run SDILINE searches after the file has been updated with the new month's citations. Under ELHILL 3, this can very easily be done via the use of the ranging capability within MEDLINE, and the Entry Dates which are published in the Technical Bulletin (Page 2) each month.

Ranging is a search strategy limited to numeric data elements of a unit record. There are three ranging expressions available:

LESS THAN _____
FROM _____ TO _____
GREATER THAN _____

The appropriate numbers are inserted in the blank(s). Each ranging expression is inclusive. For example, if you want to range on the Entry Date (ED) data element in MEDLINE, then

GREATER THAN 710701

will retrieve all records input to the system on or after July 1, 1971. When entered alone, a ranging statement will usually cause an overflow condition. Thus, they should be used only in combination with other terms in the search statement, as in the examples below:

ENZYME ACTIVATION AND LESS THAN 720101
DRUG ABUSE AND MORPHINE AND FROM 730610 to 730710
ANESTHESIA AND NOT CYCLOPROPANE AND GREATER THAN 730101

Therefore, if in December 1974, after the SDILINE file had been updated with the December or Janusry citations, it were necessary to go back and search on only those citations which were in the SDILINE data base for the November 1974 Index Medicus month, the following technique could be used:

1. Process the search against the MEDLINE file in the normal manner.

2. Obtain the November SDILINE Entry Dates from the Technical Bulletin, and proceed to AND the previous retrieval with the Entry dates obtained using the FROM _____TO_____ expression of the range capability. For example:

SS 1/C?
USER:
CHILD ABUSE AND LEGISLATION

SS 2/C?
USER:
1 AND FROM 740914 TO 741013

The results would be the same as if the earch had been processed against the SDILINE file conta ning the November 1974 Index Medicus citations.

COMPUTER UPGRADING, NLM

The General Services Administration has approved the addition of a second central processor to NLM's computer system. The installation of this new CPU should substantially improve NLM's capability to provide on-line services. Installation began on November 9, 1974. The new computer was to be used for on-line services while the old one was being modified so that the two could be joined. In November 1974, the two computers were connected together. Some difficulties may arise during this transitional period. Please report any problems to MEDLARS Management Section.

SPECIAL LIST JOURNALS, ASTERISK (*)

Special List journal titles are not included in Index Medicus. In the past, the indexer was not allowed to 'asterisk' terms which were the point of the article, since only the absence of central concept indicators (*) excluded the citations from Index Medicus. Under ELHILL 3, the presence or absence of special list indicators in the Journal Authority File determines which citations will appear in Index Medicus. Therefore, the indexer is now allowed to 'asterisk' the terms which represent the point of the article in Special List journals. Thus the searcher may now use the asterisk with search terms and EXPLOSIONS to retrieve citations in which the asterisked term is the point of the article when searching Special List titles. However, the searcher must remember that this change is effective only with 1975 indexing. Older citations from Special List journals have no central concept indicators.

LOGIN, USER NAME

It should be kept in mind that there are alternate User Names for both the NLM and SUNY system which may be used when logging in through the Tymshare Network or the WATS line to access the system. If the user is unable to log in via one User Name, for example SUNY, he should then attempt to access the system by the alternate User Name, i.e., SUNY2. The same applies if the user is accidently disconnected and is unable to log in again. The alternate User Name for the NLM system is NLM2.

IBM 2741 BREAK FEATURE

A paragraph in the Technical Notes section of the June 1974 issue of the Library Network/MEDLARS Technical Bulletin stated that IBM 2741 or similar terminals would not function properly if the Receive Interrupt (Break) or equivalent feature (4708) was not installed on the terminal. It should be noted, in addition, that a Reverse Break (Transmit Interrupt feature or 7900) is also necessary. The Break permits the computer to interrupt processing from the terminal. The Transmit Interrupt is necessary in switching from input to output modes and vice versa.

CCALINE (CANCERLINE) Cancerline (CCALINE) is an experimental file which is currently being evaluated. Please report problems, etc., to:

CANCERLINE
International Cancer Research Data Bank (ICRDB) Program Office
National Cancer Institute, Building 31, Room 10A35
Bethesda, Maryland 20014, Phone: (301) 496-2713

BACKFILE SEARCH CAPABILITY

Joseph Leiter, Ph.D.
Associate Director, Library Operations

The article by Dave Kenton (pp. 8-16) describes in detail the offsearch capability which is available under ELHILL 3. In essence, it enables the user to formulate a single search strategy which may be executed on-line to be used without any further modification to search any number of logically related files in an off-line mode. This capability will have immediate application in enabling users to request backfile searches at the time they initiate a MEDLINE search without the need for re-inputting and processing the same search against the backfile as in the case of the current MEDFILE and COMPFILE.

BACKFILE 69/71 will be available for experimental use on the NLM computer on or about the middle of December. Please watch the MEDLINE On-line News for announcement. Once implemented at NLM it is planned to place the backfile on the SUNY system as well, so that access to it can be made on both the NLM and SUNY computers. Effective February 1, 1975, a charge for off-searches will be instituted. New Tymshare agreements reflecting these charges as well as the increased charges for MEDLINE have been mailed to all MEDLINE Centers. It is essential for the new agreements to be signed and received by NLM before February 1, in order to avoid any interruption of services.

After backfile has been installed and tested, it is planned to remove COMPFILE and MEDFILE, since BACKFILE 69/71 supersedes them. This transition will probably occur on or about the 31st of December.

In this connection, please note that the December SDILINE will be the last ELHILL 2 version of this data base. The January 1975 SDILINE and subsequent ones will all be on ELHILL 3. It is absolutely essential that you reformulate all your search strategies to ELHILL 3, using the 1975 vocabulary and 7-level trees.

SEARCHING MULTIPLE DATA BASES IN ELHILL 3 - THE OFFSEARCH COMMAND

Dave Kenton
Chief, On-line Services, Office of Computer
and Communications Systems, NLM

Since the National Library of Medicine started the implementation of ELHILL 3, the MEDLARS II Retrieval Program, several articles have appeared in the *Library Network/MEDLARS Technical Bulletin* to prepare our users for the transition from ELHILL 2 to ELHILL 3. Two of these, ELHILL 3: A PREVIEW (v. 56 Dec. 1973) and SEARCHING MEDLINE UNDER ELHILL 3: SOME PARTICULARS TO BE NOTED (v. 62, June 1974) have delineated most of the changes and new features introduced with ELHILL 3.

The present paper discusses still another new ELHILL 3 system capability: OFFSEARCH. OFFSEARCH is not available under ELHILL 2 and thus cannot be used to search ELHILL 2 files, such as TOXLINE, until they are transitioned to ELHILL 3. The OFFSEARCH feature enables a user to enter on-line a search which is to be executed later by OFFHILL, the batch-mode off-line retrieval program. OFFSEARCH is designed to serve the following functions:

1. Running the same formulation against any number of logically related data bases, including the one to which the user is connected when he enters OFFSEARCH mode. "Logically related" data bases are those which have the same file structure. Files may appear similar without being so. Thus MEDLINE and TOXLINE both have fields designated AU, TI, and SO, but they are not logically related files, since these fields are designated internally by different element numbers. Similarly MEDLINE and CATLINE may share a large part of the MeSH vocabulary, but they are not logically related files. At present, the only files which are logically related and against which OFFSEARCH can be executed simultaneously, are MEDLINE, SDILINE, and, when it becomes available, BACKFILE69/71, also known as BACK69. BACKFILE69/71, under ELHILL 3, will incorporate and supersede the ELHILL 2 files MEDFILE and COMPFILE.

2. Running a search against data bases which are not available on-line at the time or not available on-line at all.

3. Running searches in batch mode in non-prime time. OFFSEARCH is subject to the following limitations: 25 search statements, 380 keyboarded terms per search, 1800 generated terms per search statement, and 500 citations per off-line print.

All commands and functions available in on-line searching are available in OFFSEARCH except STRINGSEARCH, "RESTACK", and "PRINT OFF-LINE" commands.

The specifications for formatting the off-line printout are an integral part of the OFFSEARCH program, and the user is prompted for them by the program.

Three new commands are used in OFFSEARCH:

"OFFSEARCH" This command places the user in the offsearch mode.

"OFFSEARCH CANCEL" This command may be issued at any time during the entry of an OFFSEARCH formulation. Once the formulation has been entered and the user acknowledges that he has completed his input (see "FINISHED" below), the "OFFSEARCH CANCEL" command cannot be used.

"FINISHED" This command tells the program that the formulation is complete. The program then returns the user to the on-line search mode. Note that "FINISHED" is enclosed in quotes.

The following examples with explanatory notes will give a detailed view of the program-user interaction in OFFSEARCH.

Example 1. An OFFSEARCH with the NPS (No Postings messages only) option. (The user is connected to the MEDLINE file.)

PROG:

SS 1 /C?
USER:
"OFFSEARCH" The command "OFFSEARCH" places the on-line user in OFFSEARCH mode.

PROG:
TASKNAME = S2093521 The system assigns an 8-digit task name to each OFFSEARCH. The first character S indicates that the task is an OFFSEARCH. The second digit is the last digit of the day of the month. The third through the eighth digits indicate the hour, minute and second that the request was initiated. Thus, in this example, the OFFSEARCH was requested at 9:35:21 a.m. on the 2nd, 12th or 22nd day of the month. The user should always note the task number in case it is necessary to trace the task.

ON-LINE OUTPUT:
NPS/PSTG/NONE? The program asks whether the user wants to be notified of terms which received NO POSTINGS (NPS), the actual postings of each statement in the data base he is currently accessing (PSTG), or no notices at all (NONE). The NPS option allows the system to

check the user's spelling, since terms may have no postings because they are misspelled. If the user notices a misspelling he may erase the erroneous term by means of the "ERASEBACK" or "BACKUP" command. If the term is spelled correctly and simply has no postings in the current data base, it is retained in the formulation with a search statement number, since it may have postings in another data base or in another month. The PSTG option enables the user to browse. However, since the search is actually performed, the user may have to sit through many time overflows. If the NONE option is specified, the system will perform syntax checking but will not inform the user of either postings or no postings (including possible spelling errors). The option selected will depend on the size and complexity of the search, the anticipated size of the retrieval, and whether or not the user wishes to print some of his retrieval on-line. If he wishes to browse, he must select the PSTG option. If his search is long and he wishes OFFSEARCH off-line output from all data bases, including the one to which he is connected, the option of choice is NPS, which provides validation of terms, fast response time and efficient use of the system.

USER:

NPS — The user requests that he be notified of terms that have no postings.

PROG:

OFF-LINE OUTPUT:-- NPS/PSTG/PRT — The options NPS and PSTG result in off-line indication of no postings or number of postings. These are used internally by NLM personnel and are never mailed to users. If the user wishes his retrieval to be printed off-line, he must specify PRT.

USER:

PRT — The user asks that retrieval be printed off-line.

PROG:

FILES? — The program asks for the files against which the search is to be processed. The user may specify any files which are logically related to the file he is on.

USER:

MEDLINE, BACK69 — The user inputs the desired files, separated by commas. BACK69 is the citation file for the years 1969-1971.

PROG:

PRINTSPECS? — The program asks the user for the format of his printout, i.e., FULL or FU, STANDARD or SD (i.e., author, title and source), or tailored specifications such as AU, TI, SO, CN, INDENTED. Specifications such as SS n, SKIP, OFF-LINE, and number to be printed may not be used here.

USER:

SD	The user requests a standard printout.
PROG: PRINT ELEMENTS, IF ANY, WILL BE EVALUATED AGAINST THE CURCITØ1 FILE.	The program reminds the user that if he has specified fields (e.g., AU, TI, SO, CN) for printing, the fields will be validated against the first file he specified, in this case MEDLINE. (CURCITØ1, i.e., CURRENT CITATION FILE 1, is an alias for MEDLINE.)
SEARCH TITLE, OR NONE-	The user may give his search a title up to 72 alphanumeric characters in length.
USER: PEST CONTROL	
PROG: NAME?	The user enters his name, address, etc., as in requesting an off-line print in the on-line search mode.
USER: JOHN DOE	
PROG: ADDRESS?	
USER: 7188 2ND ST.	
PROG: CITY, STATE (PLEASE DO NOT ABBREVIATE), AND ZIP-	
USER: BETHESDA, MARYLAND 20014	
PROG: REQUESTER'S NAME, OR SAME-	
USER: MARY JONES	
PROG: OK? (Y/N/C)	The program gives the user the options of Y (for YES), N (for NO), and C (for CANCEL). If the user answers Y, he will be prompted to enter his search; if he answers N, a new Taskname will be assigned and he will be returned to the prompt ON-LINE OUTPUT:--NPS/PSTG/NONE? If he answers C, the OFFSEARCH request will be cancelled and the user returned to

	the on-line search mode. An OFFSEARCH may also be cancelled at any time during the dialog by means of the command "OFFSEARCH CANCEL".
USER: Y	
PROG: ENTER SEARCH-	The program asks the user to enter his search statements. The program prompt in OFFSEARCH is preceded by *STS*.
STS SS 1 /C? USER: EXP D5.723	The user enters the MeSH number for PESTICIDES (exploded).
PROG: *STS* SS 2 /C? USER: INSECT CONTROL OR MOSQUITO CONTROL OR TICK CONTROL OR RODANT CONTROL OR PEST CONTROL, BIOLOGICAL	The user did not ask for postings, so none are given.
PROG: NP (RODANT CONTROL) *STS* SS 3 /C?	The user has misspelled 'rodent' and therefore receives no postings. He uses the "BACKUP" (or "ERASEBACK") command to re-input Search Statement 2.
USER: "BACKUP 2"	
PROG:	
STS SS 2 /C? USER: INSECT CONTROL OR TICK CONTROL OR MOSQUITO CONTROL OR RODENT CONTROL OR PEST CONTROL, BIOLOGICAL	
PROG:	
STS SS 3 /C? USER: INSECTICIDE RESISTANCE	
PROG:	

```
*STS* SS 4 /C?
USER:
1 OR 2 OR 3

PROG:

*STS* SS 5 /C?
USER:
"FINISHED"              The user indicates that he has completed his search
                        strategy.
PROG:
SSNOS-OVRIDES?          The program asks the user to specify the search state-
                        ments from which he wishes output. The user enters
                        the search statement numbers separated by commas. It
                        is possible to use OFFSEARCH to print up to 6 intel-
                        lectual searches by requesting the printing of
                        several search statements. The OVERRIDES (OVRIDES)
                        feature has not been implemented at this time.
USER:
4                       The user requests output from Search Statement 4.

PROG:
OFFSEARCH COMPLETED     The program notifies the user that his OFFSEARCH re-
                        quest has been accepted and returns him to the on-line
                        search mode.
SS 1 /C?
```

Example 2. An OFFSEARCH with the PSTG option.

```
PROG:

SS 1 /C?
USER:
"FILE SDILINE"          The user wants to browse so he elects to run first
                        against a small file so as to minimize overflow
                        sequences and system overloading.

PROG:
YOU ARE NOW
  CONNECTED TO
  THE SDILINE FILE

SS 1 /C?
USER:
"OFFSEARCH"

PROG:
TASKNAME = S6134805
ON-LINE OUTPUT:--NPS/
  PSTG/NONE?
```

```
USER:
PSTG
```

The user specifies PSTG so that he can see the citations by issuing on-line "PRINT" commands. The PSTG option also enables the user, after completing the OFFSEARCH, to issue "PRINT" commands against the data base to which he is connected.

```
PROG:
OFF-LINE OUTPUT:--
  NPS/PSTG/PRT:

USER:
PRT

PROG:
FILES?

USER:
MEDLINE, BACK69
```

The user will test his strategy on SDILINE, but wants full retrieval printed off-line for MEDLINE and BACK69 but not SDILINE.

```
PROG:
PRINTSPECS?
```

See previous example for explanations of terms and options.

```
USER:
FULL

PROG:
PRINT ELEMENTS, IF
  ANY, WILL BE
  EVALUATED AGAINST
  THE CURCITØ1 FILE
SEARCH TITLE, OR
  NONE-

USER:
PEST CONTROL

PROG:
NAME?

USER:
JOHN DOE

PROG:
ADDRESS?

USER:
7188 2ND ST.

PROG:
CITY, STATE (PLEASE
  DO NOT
  ABBREVIATE), AND
  ZIP-
```

```
USER:
MARY JONES

PROG:
OK? (Y/N/C)

USER:
Y

PROG:
ENTER SEARCH-

*STS* SS 1 /C?
USER:
EXP D5.723

PROG:
SS (1) PSTG (225)      The user specified PSTG as his on-line output
                       option.  Therefore the search is actually run
                       against SDILINE, and he receives postings.
*STS* SS 2 /C?
USER:
"PRT 10 TI"            The user wishes to browse, so he asks that 10 titles
                       be printed.
PROG:

  (The program prints
  10 titles)

*STS* SS 2 /C?
USER:
"MNO WARFARIN"         In browsing, the user discovers that titles supposedly
                       dealing with pesticides actually deal with WARFARIN,
PROG:                  which he does not want.  He verifies that WARFARIN is
                       indeed indented under PESTICIDES.
WARFARIN
    D5.723.853.738
*STS* SS 2 /C?
USER:
1 AND NOT WARFARIN     Note that although the user is searching against
                       SDILINE, he need not specify (TW) or (MH).  In OFF-
                       SEARCH all multi-meanings default to ALL.
PROG:
SS (2) PSTG (207)

*STS* SS 3 /C?
USER:
INSECT CONTROL OR
MOSQUITO CONTROL OR
RODENT CONTROL OR
TICK CONTROL OR
```

```
PEST CONTROL,
  BIOLOGICAL

PROG:
SS (3) PSTG (18)

*STS* SS 4 /C?
USER:
INSECTICIDE RESISTANCE

PROG:
SS (4) PSTG (9)

*STS* SS 5 /C?
USER:
"FINISHED"

PROG:
SSNOS-OVRIDES?

USER:
2, 3, 4              The user requests that the retrieval printed off-
                     line be from SS 2, SS 3, and SS 4.
PROG:
OFFSEARCH COMPLETED

SS 5 /C?
USER:
```

OFFSEARCH thus increases the available options for printing retrieval from two to three:

On-line from one data base
Off-line from one data base
Off-line from several logically related data bases by means of OFFSEARCH

OFFSEARCH is the first of a number of ELHILL 3 features designed to provide more flexibility and efficiency in searching. In the future the NLM plans to implement the capabilities for storing search formulations and automatic processing of SDI (Selective Dissemination of Information) searches. As these features become available, they will be described in future articles in the Technical Bulletin.

THE 1975 MeSH

Clifford A. Bachrach, M.D.
Head, Medical Subject Headings

The 1975 MeSH will be the first edition of MeSH to reflect the opportunities that MEDLARS II affords us to provide greater specificity for on-line searching while retaining the advantages of the MeSH thesaurus. Because of the delivery schedule of MEDLARS II programs, it has been necessary to expand 1975 MeSH in several stages.

During the spring and summer of 1974, MeSH was converted to MEDLARS II format, with extensive restructuring of the "trees", with the introduction of many additional subcategories, and the expansion to seven hierarchical levels. Although these changes represent only part of the improvements planned for MEDLARS II MeSH, the schedule for the start of 1975 indexing activity necessitated the production of an Interim edition of MeSH at this stage. The new terms in the Interim MeSH are terms that were introduced before the conversion to MEDLARS II format.

Since the Interim MeSH was printed out, the development of MEDLARS II input programs and file maintenance programs has continued, and this is now enabling us to begin adding to the MeSH file the great accumulation of additional terms that we have developed since last spring.

Interim 1975 MeSH contains almost 150 new major descriptors. (About 50 of these were formerly "see under" cross-references, or "Non-MeSH" tree nodes.) An additional 150 major descriptors will appear in the Final 1975 MeSH.

Interim 1975 MeSH contains 1628 minor descriptors. About 400 of these were formerly "provisional" headings, but the other 1,200 were made available for indexing and searching for the first time with the publication of Interim MeSH. The Final 1975 MeSH will contain more than 3,000 minor descriptors. Over 1,200 of the additional terms will be drugs and chemicals. All of these have been selected on the basis of having been encountered repeatedly in literature we have indexed in the last two years. Many of the remaining additions are terms for viruses, bacteria, fungi, and some higher animals.

Final 1975 MeSH will also contain thousands of new entry terms, enhancing the ease with which the indexer or on-line searcher may access the system.

In the two articles that follow, Thelma Charen and Ruth Stander discuss some of the changes to be noted in 1975 MeSH. The new terms that they mention as examples are drawn from the Interim MeSH. Further discussions of the numerous additional terms that will be found in the Final 1975 MeSH, and their implications for indexing and searching will be forthcoming when Final 1975 MeSH is ready for distribution in early 1975.

THE 1975 INTERIM MeSH: AN INDEXER'S VIEW

Thelma Charen, Index Section

Entry Vocabulary

A great deal of time was devoted to the 1975 INTERIM MeSH at the 1975 orientation for Indexers, held October in the Index Section. The observations given below were discussed at length at the various training sessions and form the subject of pages in the 1975 Indexing Orientation packet given all Indexers in this country and abroad.

First, all MEDLINE users will hasten to make use of the wonderful entry vocabulary of MEDLARS II. Any term at the margin is now indexable and searchable (the so-called "main headings" only will continue to be printed in INDEX MEDICUS). No longer will it be necessary for a Reviser to chide an Indexer who types on a data form, ANTIBODY FRAGMENTS, saying, "You didn't read the whole entry. It isn't ANTIBODY FRAGMENTS; It is ANTIBODY FRAGMENTS SEE IMMUNOGLOBULIN FRAGMENTS!" Now ANTIBODY FRAGMENTS can appear on a data form and a Searcher can search under it directly, without fear of a Reviser's chiding or an NP rejection.

Nay rather, an Indexer is encouraged to use the term at the margin - the entry vocabulary - for in this way MeSH can patrol usages in the literature and can build future vocabulary based on terminology evidenced by authors' preferences and Indexers' input forms. Old-timers may recall that the original 1954 Authority List gave ACTH, but that the first MeSH six years later gave ACTH see CORTICOTROPIN. Who knows? perhaps the SHOCK, ANAPHYLACTIC see ANAPHYLAXIS of 1974 will yield to ANAPHYLAXIS see ANAPHYLACTIC SHOCK or ANAPHYLACTIC REACTION, if judged presciently by the entries in the 1973 CUMULATED INDEX MEDICUS.

Next, all MEDLINE users will have to acquaint themselves with the new names for MeSH headings; they are summarized below.

MEDLARS II	MEDLARS I
Major Descriptors	MeSH Headings ("main headings") Geographicals Check Tags Citation Types Form Tags (for Catalogers only) (NON MESH) terms
Minor Descriptors	see under references former Provisionals
Entry Terms	see references
Entry Versions	short forms (used by Indexers)
Qualifiers	Subheadings

The definition of a Major Descriptor is any MeSH entry which does not require mapping to another term and under which citations are stored in the Computer. By this definition, HUMAN, a Check Tag, is a Major Descriptor like its neighbors in the line-up above. Among Indexers, the terminology is seen as indeterminate and not nearly as definitive as the terms in the second column. Confusion is going to arise for some time to come among "entry vocabulary", "entry term" and "entry version" - not exactly clean-shaven representatives of the neat, well-dressed clean-shaven English tongue. We shall be patient, trying our best to distinguish among them.

Indexers and Searchers may use Minor Descriptors (MEGACOLON, TOXIC as in MEGACOLON, TOXIC see under COLITIS, ULCERATIVE), for IM or NIM terms. If IM, the citation will appear in INDEX MEDICUS under only COLITIS, ULCERATIVE but will be stored in the Computer under also MEGACOLON, TOXIC. If NIM, the citation will be stored in the Computer under only MEGACOLON, TOXIC, retrievable, also however, in an explosion of COLITIS, ULCERATIVE.

At this time only a few Entry Versions are available to Searchers. These are the terms permitted to Indexers under MEDLARS I, as PREGNANCY COMPL., CARDIOVASCULAR or SET for SET (PSYCHOLOGY) or AMA, ADA, WHO, PHS, etc. They were never printed in INDEX MEDICUS or usable by Searchers but existed as convenience terms. Do not confuse them with the Entry Terms (note: Entry Terms, not Entry Versions) themselves in MeSH, like IUD see INTRAUTERINE DEVICES or MEDICAID see MEDICAL ASSISTANCE, TITLE 19.

New Terms and New Trees

The INTERIM MeSH contains 101 new Major Descriptors and 24 terms which are printed as (NON MESH) but which Indexers have been asked to modify by erasing the legend (NON MESH), thus elevating them to indexable and searchable status: e.g., ANTICESTODAL AGENTS (NON MESH) should read ANTICESTODAL AGENTS, and will be used by Indexers and printed in INDEX MEDICUS.

Apart from Category D (Chemicals and Drugs) the greatest expansion of vocabulary has been in Category B. In B1, 12 new terms have been added: one tick/mite heading, ACARI; two helminth terms, ASCAROIDEA and ASCHELMINTHES; and nine insect terms: COLEOPTERA, DICTYOPTERA, HEMIPTERA, HYMENOPTERA, LEPIDOPTERA, PHTHIROPTERA and SIPHONAPTERA.

Thirty-nine bacteria (B3) terms have been added, mostly families filling in noticeable gaps in the Trees. That is, the children ACTINOBACILLUS, BORDETELLA, BRUCELLA, HAEMOPHILUS, MORAXELLA and PASTEURELLA were in the tree-house for years alone until Mother BRUCELLACEAE arrived in 1975.

GRAM NEGATIVE BACTERIA and GRAM POSITIVE BACTERIA appear in B3 without hyphens (!) and without indentions. The Indexers have available in their Orientation packet three pages photographed from the 1974 Tree with the 1975 bacterial terms added freshly to a reconstructed Tree lining up all of the gram-negative and -positive bacteria as defined by MeSH. All of the new 1975 bacteria orders and families are gram-negative as taken from the MeSH definitions, except these gram-positives: BACILLACEAE ("usually positive"), BREVIBACTERIACEAE, CORYNEBACTERIACEAE ("usually positive"), LACTOBACILLACEAE, MICROCOCCACEAE, MYCOBACTERIACEAE and PROPIONIBACTERIACEAE.

Only RNA RODENT VIRUSES was added to the virus category but the B4 Tree containing the viruses shows neater groupings in the 7-level format than the MEDLARS I Tree.

No new Category C (Diseases) terms were added to the INTERIM MeSH. Since for obvious reasons MeSH had an excellent coverage of diseases, this is not surprising. Searchers should find superior service in the MEDLARS II breakdowns. Mouth and tooth diseases have been removed from digestive diseases to a tree of their own. Gynecologic and obstetric diseases have been removed from the urogenital tree and are now by themselves in C13. With the increase of 17 C subcategories to a new total of 23, Indexers and Searchers will find neater groupings. Added to the new ones above are the ORL diseases, eye diseases and immunologic diseases to stand alone.

Please take note, however, of a peculiar set of associates. 1975 groups the rickettsial diseases in the same category as the viral diseases while the rickettsia as organisms are grouped with the bacteria in subcategory B3. Indexers are still considering the Rickettsia as bacteria and when they need a coordinate for a Rickettsia, they will coordinate, for example, with ANTIBODIES, BACTERIAL, not with ANTIBODIES, VIRAL.

An examination of the subcategories of the D Tree (Chemicals and Drugs), printed in the July LIBRARY NETWORK/TECHNICAL BULLETIN on Page 8 will show that the 13 subcategories of 1974 are now 26 for 1975. A discussion of MeSH additions and coverage in this Tree by Mrs. Ruth Stander, can be found on Page 24 of this current issue.

In Category F, normal psychology was subdivided into normal behavior (F1) and normal thought processes (F2). This subdivision moved F2 (deviations from the norm) and F3 (technics) to F3 and F4 respectively.

Category G shows a most desirable re-classification. The G1 Tree of MEDLARS I, an old barn of physiological processes, has been conveniently and comfortably divided into nine livable refurbished condominia.

The -OLOGIES of the old G1 Tree remain as the Biological Sciences category in the new Trees, G2 remains the Health Occupations category and G3, the Environmental and Preventive Medicine category but the life processes and biological and physiological phenomena have been conveniently subcategorized from G4 through G12, a highly desirable change. For the present the notable addition

in this segment for the 1975 INTERIM MeSH is the PREGNANCY TRIMESTERS (NON MESH) group. Each one, however, is indexable: PREGNANCY, FIRST TRIMESTER; PREGNANCY, SECOND TRIMESTER; PREGNANCY, THIRD TRIMESTER. Note also these 1975 availables: CHILD, EXCEPTIONAL (F2,M), DRAINAGE, SANITARY (G3), HOUSEHOLD PRODUCTS (J) and WORK SIMPLIFICATION (J).

There have been some switchings-around from other categories to N and from one N subcategory to another. Those Indexers and Searchers familiar with this subject area should pursue the 1975 coverages each time for a while instead of indexing and searching from memory.

As for Category Z, please correct CITIES (NON MESH) to include PARIS, ROME and TOKYO, inadvertently omitted. Note further that these geographics formerly used only by Catalogers are now available to Indexers: APPALACHIAN REGION, GREAT LAKES REGION, MID ATLANTIC REGION and NEW ENGLAND.

Qualifiers

Eight new qualifiers (née subheadings) have been added to the 60 of 1974. Here is a chart taken from the Indexers' Orientation packet.

Qualifier	Indexers' Abbreviation	Searchers' Abbreviation	Category Assignment
analogs & derivatives	/analogs	AA	D
deficiency	/defic	DF	D
diet therapy	/diet ther	DH	C F3
ethnology	/ethnol	EH	Z
methods	/methods	MT	E F4 G1 G2 G3 H I J L N
parasitology	/parasitol	PS	A B1 B2 B6 C F3
transmission	/transm	TM	C F3
ultrastructure	/ultrastruct	UL	A B

Note that a new feature of the MEDLARS II qualifier apparatus is the assignment of a qualifier to a specific subcategory: the MEDLARS I system assigned a subheading only by category. The ANNOTATED MeSH to be published in 1975 will continue to restrict qualifier uses even within subcategories. In hundreds of special cases when sense beyond computer assignment demands it, permission will be granted and prohibitions issued opposite specific terms.

The definitions or scope of the new qualifiers are quoted fully below as supplied by MeSH.

analogs & derivatives - "Used with drugs and chemicals for substances that share the same parent molecule or have similar electronic structure but differ by the addition or substitution of other atoms or molecules. Used when

the specific chemical heading is not available, and no appropriate group heading exists." (For a detailed description of the use of /analogs & derivatives see article by Mrs. Peri Schuyler on page 32 of this issue.)

deficiency	-	"Used with endogenous and exogenous substances which are absent or in diminished amount relative to the normal requirement of an organism or a biologic system."
diet therapy	-	"Used with disease headings for dietary and nutritional management of the diseases. Does not include vitamin or mineral supplements, for which "Drug Therapy" may be used."
ethnology	-	"Used with geographic headings to indicate the place of origin of a group of people."
methods	-	"Used with techniques, procedures, and programs for methods."
parasitology	-	"Used with animals, higher plants, organs and diseases for parasitic factors; do not use if the parasitic involvement is implicit in the diagnosis."
transmission	-	"Used with diseases for studies of the modes of transmission."
ultra-structure	-	"Used with tissues, cells, and microorganisms for microanatomic structures, generally below the size visible by light microscopy."

A special mention should be made of /ethnology, a qualifier created especially for Searchers to distinguish between these two examples (as a prototype):

ARTERIOSCLEROSIS AND PUERTO RICO AND NEW YORK CITY
and
ARTERIOSCLEROSIS AND PUERTO RICO/ethnology AND NEW YORK CITY

In the first, the article could have been a comparison between the incidence of arteriosclerosis in New York City and in Puerto Rico. In the second, the article was on the incidence of arteriosclerosis among Puerto Ricans living in New York City. An Indexer can now make available to you a Puerto Rican in Puerto Rico (PUERTO RICO) and a Puerto Rican living elsewhere (PUERTO RICO/ethnology). Similarly the Italo-American is ITALY/ethnology AND UNITED STATES and the Italian in Italy is ITALY.

Indexers and Searchers requested the extended use of old subheadings to new categories or subcategories. Again we print a chart from the Index Orientation packet:

adverse effects	now available also to F4
analysis	now available to C4 (neoplasms)
blood; cerebrospinal fluid; urine	now available to B2
classification	now available to B through N
education	available selectively E through N
immunology	now available to D
instrumentation	now available to L
manpower	now available to J
microbiology	now available to B1, B2, B6
physiology	now available to F1, F2
prevention & control	now available selectively to I1
radiation effects	now available to F1, F2
radiotherapy	no longer permitted by MeSH to F
standards	now available to G1, G2, G3
supply & distribution	now available to D, E, F4, H, I, J, L, N2, N3, N4
utilization	now available to E, G1, G2, G3, H, I, J, L, N

Indexers requested more uniform abbreviations for four old qualifiers and MeSH granted them immunol (for immun), pathol (for path), physiopathol (for physiopath) and rehabil (for rehab). Since Searchers prefer their own short two-letter abbreviations, this news is of little moment to them. An arrangement of qualifiers by category with Searchers' abbreviations is available from MEDLARS Management Section.

Interesting uses and further applications will be announced as the Indexers move on into the 1975 indexing year with their new descriptors. The new entry vocabulary to be used by Indexers met with their general approval and subdued enthusiasm. The new qualifiers were those they needed and wanted and they too were welcomed. We can only hope that we shall use all well for the Searchers and that they too will show MeSH their approval.

THE D CATEGORY IN THE 1975 INTERIM MeSH

Ruth L. Stander
Index and Medical Subject Headings Sections, NLM

The D category has been expanded from 13 to 26 subcategories. This expansion was necessitated by the extensive growth which the D category has undergone in recent years and will provide the user with more specific and better arranged trees. The list below shows the names of the new subcategories; the information in parenthesis at the end of the headings indicates the MEDLARS I subcategory in which this information was formerly contained. Since the medical and biological literature now contains extensive information in regard to environmental factors and reproduction control, two brand new trees, D5 and D7, which deal with these disciplines were constructed.

D1 - INORGANIC CHEMICALS
D2 - ORGANIC CHEMICALS
D3 - HETEROCYCLIC COMPOUNDS (new; D2)
D4 - POLYCYCLIC COMPOUNDS (new; D2)
D5 - ENVIRONMENTAL POLLUTANTS (new)
D6 - HORMONES, SUBSTITUTES AND ANTAGONISTS (D8)
D7 - REPRODUCTIVE CONTROL AGENTS (new)
D8 - ENZYMES, COENZYMES AND ENZYME INHIBITORS (D9)
D9 - CARBOHYDRATES AND HYPOGLYCEMIC AGENTS (D11)
D10 - LIPIDS AND ANTILIPEMIC AGENTS (new; D11)
D11 - GROWTH SUBSTANCES, PIGMENTS AND VITAMINS (new; D2)
D12 - AMINO ACIDS, PEPTIDES AND PROTEINS (D10)
D13 - NUCLEOSIDES AND NUCLEOTIDES (new; D10)
D14 - CENTRAL NERVOUS SYSTEM DEPRESSANTS (new; D6)
D15 - CENTRAL NERVOUS SYSTEM AGENTS (new; D6)
D16 - AUTONOMIC DRUGS (D5)
D17 - NEUROMUSCULAR AGENTS (new; D5)
D18 - CARDIOVASCULAR AGENTS (new; D5)
D19 - HEMATOLOGIC, GASTRIC AND RENAL AGENTS (new; D2)
D20 - ANTI-INFECTIVE AGENTS (D3)
D21 - ANTIPARASITIC AGENTS (D3)
D22 - ANTINEOPLASTICS, IMMUNOSUPRESSIVES (D4)
D23 - ANTIMETICS, ANTIHISTAMINICS (D6)
D24 - IMMUNOLOGIC AND BIOLOGIC FACTORS (D12)
D25 - BIOMEDICAL AND DENTAL MATERIALS (new; D13)
D26 - MISCELLANEOUS DRUGS AND AGENTS (D13)

The 4-level trees have been expanded to 7-level trees. This permits a superior hierarchial arrangement, doing away with what was formerly called "pleating" or the necessity of placing a "child" on the same level as its "mother",

Categories and New Terms

The Interim MeSH D category contains 66 new major descriptors and 288 new minor descriptors. A breakdown of the major descriptors and significant changes in the subcategories are discussed below.

D1 -- INORGANIC CHEMICALS

New major descriptors:

LAWRENCIUM a radioactive, actinide element
SULFUR OXIDES

In this category, the inorganic acids and elements were pulled together and treed under ACIDS and ELEMENTS, respectively.

D2 -- ORGANIC CHEMICALS

New major descriptors:

HYDROXY ACIDS
METHYLUREA COMPOUNDS

The former D2 subcategory was subdivided into D2, D3 and D4. This category contains organic chemical group terms with the exception of the heterocyclic and polycyclic compounds. Many specific headings are treed under the appropriate group term.

D3 -- HETEROCYCLIC COMPOUNDS

New major descriptors:

HETEROCYCLIC OXIDES
RAUWOLFIA ALKALOIDS
XANTHINE ALKALOIDS

This category contains the heterocyclic group terms and many specific terms treed under the appropriate group term. In this category are 16 minor descriptors listed below which are precoordinated with the term DERIVATIVES.

DIHYDROMORPHINONE DERIVATIVES	APOMORPHINE DERIVATIVES
THEBAINE DERIVATIVES	ERGONOVINE DERIVATIVES
ATROPINE DERIVATIVES	METHYLERGONOVINE DERIVATIVES
COCAINE DERIVATIVES	ERGOTAMINE DERIVATIVES
SCOPOLAMINE DERIVATIVES	METHYSERGIDE DERIVATIVES
PROTOVERATRINE A DERIVATIVES	MORPHINE DERIVATIVES
RESERPINE DERIVATIVES	CODEINE DERIVATIVES
YOHIMBINE DERIVATIVES	DIACETYLMORPHINE DERIVATIVES

Due to various difficulties, indexers did not receive the new qualifiers (subheadings) until after the Interim MeSH had gone to press. Thus, the see under cross references in the Interim MeSH show these minor descriptors mapped to group terms as in MEDLARS I. For example, under DIACETYLMORPHINE DERIVATIVES the cross reference reads "see under MORPHINANS". When the change-over to the final 1975 MeSH is complete, the computer will have been programmed to map these precoordinated derivative terms to the most specific major descriptor with the new qualifier analogs & derivatives attached.

DIACETYLMORPHINE DERIVATIVES will be mapped automatically to DIACETYLMORPHINE/ analogs & derivatives. We also have one old major descriptor BENZENE DERIVATIVES (D2) which is precoordinated with the new qualifier. For a full discussion of the qualifier /analogs & derivatives see article by Mrs. Peri Schuyler on page 32 of this issue.

D4 -- POLYCYCLIC COMPOUNDS

This subcategory contains the polycyclic hydrocarbons including a large steroid section. Listed below are 10 steroid class terms, which are at present new minor descriptors, but will become major descriptors in the final 1974 MeSH.

ANDROSTADIENES
ANDROSTATRIENES
ANDROSTENEDIOLS
CHOLENES
CHOLESTADIENES
ESTRENES
NORANDROSTANES
NORPREGNADIENES
NORPREGNATRIENES
NORPREGNENES

D5 -- ENVIRONMENTAL POLLUTANTS

New major descriptors:

AIR POLLUTANTS
CARCINOGENS, ENVIRONMENTAL
ENVIRONMENTAL POLLUTANTS
HERBICIDES, CARBAMATE
HERBICIDES, TRIAZINE
HERBICIDES, UREA
INSECTICIDES, CARBAMATE
OXIDANTS, PHOTOCHEMICAL
RADIOACTIVE POLLUTANTS
RIOT CONTROL AGENTS, CHEMICAL
SOIL POLLUTANTS
SULFUR OXIDES
TERATOGENS
WATER POLLUTANTS

In this category many new environmental pollution terms are introduced. The Interim MeSH tree shows many Non MeSH terms in this area. They will become minor descriptors in the final 1975 MeSH. Also included in D5 are MUTAGENS, POISONS, TOXINS, TERATOGENS, and the PESTICIDES formerly found in D3.

D6 -- HORMONES, SUBSTITUTES AND ANTAGONISTS

New major descriptors:

ANDROGENS, SYNTHETIC
ESTROGENS, SYNTHETIC
GLUCOCORTICOIDS, SYNTHETIC
HORMONE ANTAGONISTS
HYDROXYCORTICOSTEROIDS, SYNTHETIC
11-HYDROXYCORTICOSTEROIDS, SYNTHETIC
17-HYDROXYCORTICOSTEROIDS, SYNTHETIC
MINERALOCORTICOIDS, SYNTHETIC
PROGESTATIONAL HORMONES, SYNTHETIC

This subcategory was completely restructured by treeing the synthetic hormone-like agents separately from the naturally occurring hormones. Since we have

the new precoordinated heading HORMONE ANTAGONISTS, the combination HORMONES/ antagonists & inhibitors is now forbidden.

D7 -- REPRODUCTIVE CONTROL AGENTS

New major descriptors:

ABORTIFACIENT AGENTS
ANTISPERMATOGENIC AGENTS
CONTRACEPTIVE AGENTS, FEMALE
CONTRACEPTIVE AGENTS, MALE
ESTROGENS, SYNTHETIC
FERTILITY AGENTS, FEMALE
FERTILITY AGENTS, MALE
PROGESTATIONAL HORMONES, SYNTHETIC
SPERM IMMOBILIZATION AGENTS
SPERM MATURATION BLOCKING AGENTS
SPERMATOCIDAL AGENTS
SPERMATOGENESIS BLOCKING AGENTS

This subcategory contains many new terms which are significant in reproduction control as well as contraceptive agents formerly found in D8.

D8 -- ENZYMES, COENZYMES AND ENZYME INHIBITORS

New major descriptors:

AMINE OXIDOREDUCTASES (EC 1.4; 1.5)
ENZYME INHIBITORS
ENZYME REACTIVATORS
PHOSPHOMONOESTERASES (EC 3.1.3)
POLYSACCHARIDE-LYASES (EC 4.2.2)

Since ENZYME INHIBITORS is a new precoordinated heading, the combination ENZYMES/antagonists & inhibitors is now forbidden. CHOLINESTERASE REACTIVATORS, which was formerly indented under ESTERASES, can now be found under the new term ENZYME REACTIVATORS. Two new class terms NUCLEOSIDE DEAMINASES and NUCLEOTIDE DEAMINASES are at present minor descriptors, but will become major descriptors in the final 1975 MeSH.

D9 -- CARBOHYDRATES AND HYPOGLYCEMIC AGENTS

New major descriptor:

SIALIC ACIDS

D10 -- LIPIDS AND ANTILIPEMIC AGENTS

D11 -- GROWTH SUBSTANCES, PIGMENTS AND VITAMINS

The D9, D10 and D11 trees were cleaved from the MEDLARS ' D11 tree. Having three separate trees for the previous awkward agglomerate permits a more logical and detailed hierarchial arrangement. Pigments, which were previously in the same tree as AMINO ACIDS, PROTEINS AND NUCLEIC ACIDS, (D10) were placed into the new D11 tree.

D12 -- AMINO ACIDS, PEPTIDES AND PROTEINS

New Major descriptors:

LEVODOPA
VEGETABLE PROTEINS

D13 -- NUCLEOSIDES AND NUCLEOTIDES

The D12 and D13 trees were formerly combined in MEDLARS I D10 tree. An examination of the new trees will show the superior arrangement which resulted from the breakdown of the old D10 tree into the above two new trees. In the former D10 tree, BLOOD PROTEINS followed the AMINO ACIDS. These were followed by NUCLEIC ACIDS, NUCLEOSIDES, and NUCLEOTIDES, which were then followed by PEPTIDES, PIGMENTS, and finally again by PROTEINS. In the new D12 tree, a logical progression from AMINO ACIDS to PEPTIDES to PROTEINS is followed. SERUM ALBUMIN and SERUM GLOBULINS as well as the specific SERUM GLOBULINS are all treed under BLOOD PROTEINS. MILK PROTEINS and EGG PROTEINS are treed under DIETARY PROTEINS, and SILVER PROTEINS, which was formerly only in D1, was added to this tree. APOENZYMES is a new minor descriptor which will enjoy considerable use.

D14 -- CENTRAL NERVOUS SYSTEM DEPRESSANTS

New major descriptors:

ANALGESICS, ADDICTIVE
GOUT SUPPRESSANTS
LEVODOPA
SEDATIVES, NONBARBITURATE

D15 -- CENTRAL NERVOUS SYSTEM AGENTS

New major descriptors:

BENZODIAZEPINE TRANQUILIZERS (Not double indexed with BENZAZEPINES)
PSYCHOTROPIC DRUGS
TRANQUILIZING AGENTS, MAJOR
TRANQUILIZING AGENTS, MINOR

D14, D15 and the new D23 tree formerly comprised the D6 category. D14 now contains the ANALEGESICS AND ANTIPYRETICS; ANALGESICS ANTI-INFLAMMATORY (NON MESH); ANESTHETICS; ANTICONVULSANTS; ANTIPARKINSON DRUGS, GOUT SUPPRESSANTS; SEDATIVES; NARCOTICS and NARCOTIC ANTAGONISTS. In D15 are the ANALEPTICS, ANTIDEPRESSIVE AGENTS, and TRANQUILIZING AGENTS, and, under the new major descriptor PSYCHOTROPIC DRUGS, the HALLUCINOGENS. In the final 1975 MeSH the ANTIDEPRESSIVE AGENTS; TRANQUILIZING AGENTS, MAJOR; TRANQUILIZING AGENTS, MINOR; and the HALLUCINOGENS will be indented under PSYCHOTROPIC DRUGS. CONVULSANTS will be a new major descriptor under ANALEPTICS.

D16 -- AUTONOMIC DRUGS

New major descriptors:

ADRENERGIC RECEPTOR AGONISTS
ADRENOMIMETICS, NERVE ENDING
ANTIADRENERGIC AGENTS
NEUROMUSCULAR BLOCKING AGENTS
RAUWOLFIA ALKALOIDS

D17 -- NEUROMUSCULAR AGENTS

New major descriptor:

NEUROMUSCULAR BLOCKING AGENTS

D18 -- CARDIOVASCULAR AGENTS

New major descriptor:

RAUWOLFIA ALKALOIDS

The material in D16, D17, and D18 was previously included in the D5 category. D16 now contains BRONCHODILATOR AGENTS; ADRENOMIMETICS, NERVE ENDING; PARASYMPATHOLYTICS under which are indented the ANTICHOLINERGIC AGENTS; PARASYMPATHOMIMETICS which include the CHOLINERGIC AGENTS; SYMPATHOLYTICS under which are indented the ANTIADRENERGIC AGENTS and SYMPATHOMIMETICS which include the ADRENERGIC RECEPTOR AGONISTS. ANTICHOLINERGIC AGENTS and CHOLINERGIC AGENTS are at present minor descriptors but will be major descriptors in the final 1975 MeSH. In D17, under NEUROMUSCULAR AGENTS (NON MESH) are found MUSCLE RELAXANTS, CENTRAL; NEUROMUSCULAR BLOCKING AGENTS, which include the CURARE-LIKE AGENTS; and the NEUROMUSCULAR DEPOLARIZING AGENTS. D18 includes ANTI-ARRHYTHMIA AGENTS (NON MESH); ANTIHYPERTENSIVE AGENTS; CARDIAC GLYCOSIDES; MYOCARDIAL DEPARSSANTS; VASOCONSTRICTOR AGENTS and VASODILATOR AGENTS. MYOCARDIAL DEPRESSANTS will become an entry term to ANTI-ARRHYTHMIA AGENTS.

D19 -- HEMATOLOGIC, GASTRIC, RENAL AGENTS

This tree contains the terms previously in D7, but arranged in a much superior hierarchial arrangement. ANTIDIARRHEALS and COAGULANTS are new minor descriptors. COAGULANTS will become a major descriptor in the final 1975 MeSH. Indented under this heading are ANTITHROMBIN, BLOOD COAGULATION FACTORS, HEMOSTATICS, and HEPARIN ANTAGONISTS. URICOSURIC AGENTS, previously in D7, are now in D14 under the new major descriptor GOUT SUPPRESSANTS.

D20 -- ANTI-INFECTIVE AGENTS

New major descriptors:

ANTIBIOTICS, ANTITUBERCULAR
LEPROSTATIC AGENTS

D21 -- ANTIPARASITIC AGENTS

New major descriptors:

DICHLOROPHEN
SCHISTOSOMICIDES

D20 and D21 replace the former D3 subcategory. In D20, the antibiotics are now further subdivided into ANTIBIOTICS, ANTIFUNGAL; ANTIBIOTICS, ANTINEOPLASTIC; and ANTIBIOTICS, ANTITUBERCULAR. The Non MeSH terms ANTIBIOTICS, BROAD SPECTRUM and ANTIBIOTICS, NARROW SPECTRUM have been dropped and headings indented under these terms placed in the appropriate antibiotic classifications listed above. DISINFECTANTS are now classified under ANTI-INFECTIVE AGENTS, LOCAL; and ANTITREPONEMAL AGENTS (NON MESH) with several terms indented under it has been added to this tree. In D21, ANTICESTODAL AGENTS, ANTIPLATIHELMINTIC AGENTS and ANTINEMATODAL AGENTS have been added as minor descriptors. The first two terms will become major descriptors in the final 1975 MeSH and ANTINEMATODAL AGENTS will be replaced by the major descriptor NEMATOCIDES.

D22 -- ANTINEOPLASTICS, IMMUNOSUPPRESSIVES

D22 replaces the former D4 category. The new Non MeSH heading ANTINEOPLASTICS, PHYTOGENIC has been added to this tree and the appropriate terms indented under this new heading.

D23 -- ANTIEMETICS, ANTIHISTAMINICS

This new tree contains the ANTIEMETICS, ANTIHISTAMINICS, ANTITUSSIVE AGENTS, and EMETICS formerly found in D6.

D24 -- IMMUNOLOGIC AND BIOLOGIC FACTORS

D24 replaces the former D12 subcategory. Two new Non MeSH terms, BIOLOGIC FACTORS and IMMUNOLOGIC FACTORS were introduced, and the various biologic and immunologic factors which were formerly scattered all through D12 and various other subcategories were collected under these Non MeSH headings.

D25 -- BIOMEDICAL AND DENTAL MATERIALS

New major descriptor:

RESINS, SYNTHETIC

The material in this category was formerly found in D13 as part of miscellaneous chemicals and drugs. D25 now contains a section on DENTAL MATERIALS as well as other chemical dental terms such as CARIOGENIC AGENTS, CARIOSTATIC AGENTS, DENTIFRICES, and MOUTHWASHES. In this tree are also found TISSUE ADHESIVES and POLYMERS. The latter include various plastics as well as natural and synthetic resins.

D26 -- MISCELLANEOUS DRUGS AND AGENTS

New major descriptors:

ADJUVANTS, PHARMACEUTIC
CARCINOGENS, ENVIRONMENTAL
PHTHALEIN DYES

This tree still contains a conglomerate of terms, but has been much improved by the removal of headings now found in D25. In addition to the class terms formerly found in D13, APPETITE DEPRESSANTS, formerly in D5, and BUFFERS, which were not previously in the D category, are now in D26. New class terms, which are minor descriptors, include ANTIPRURITICS; EMMOLLIENTS; KERATOLYTIC AGENTS; ANION EXCHANGE RESINS; CATION EXCHANGE RESINS; RUBEFACIENTS; OINTMENT BASES; PRESERVATIVES, PHARMACEUTICAL; EXCIPIENTS; VESICANTS; and WETTING AGENTS.

Qualifiers

Three new qualifiers can be used with D category. Two are brand new qualifiers:

analogs & derivatives (Indexers' Abbreviation /analogs, Searchers' Abbreviation AA)
deficiency (Indexers' Abbreviation /defic, Searchers' Abbreviation DF).

One old qualifier, immunology (Indexers' Abbreviation /immunol, Searchers' Abbreviation IM), has been extended to D category.

The definition and applications of the qualifier /analogs & derivatives are discussed in detail on page 32 of this issue. The definition of the qualifier /deficiency as supplied by MeSH reads: "Used with endogenous and exogenous substances which are absent or in diminshed amount relative to the normal requirement of an organism or biologic system." Since this definition is clear and straightforward, no additional explanation is necessary. While the computer will accept the three qualifiers for the whole D category, the Index Section has placed restrictions on the use of these and other qualifiers to prevent combinations which are not sensible. Two tables detailing qualifier restrictions for subcategory D25 and D26 as well as for radioisotopes and naturally occurring radioactive elements are provided below by the Index Section. They are a revised version of the tables printed in the Introduction to the 1974 Annotated MeSH.

With Subcategories D25 (Biomedical and Dental Materials) and D26 (Miscellaneous Drugs and Agents) use only:

administration & dosage
adverse effects
analysis
chem synthesis
classification
diagnostic use
history
isolation
metabolism (but with discretion)
pharmacodynamics
poisoning
radiation effects
standards
supply & distribution
therapeutic use
toxicity

With radioisotope headings and naturally radioactive elements (Subcategory D1) use only:

administration & dosage	metabolism
adverse effects	poisoning
analysis	standards
diagnostic use	supply & distribution
history	therapeutic use
isolation	toxicity

In addition, the new qualifier /deficiency should not be used with subcategories D1 through D5, D7, and D14 through D23. The qualifier /immunology can be used for the antigenicity of any D term. Naturally, it will not be used for terms indented under IMMUNOLOGIC FACTORS (NON MESH) in D24 and should be used with discretion for the remainder of the D24 subcategory.

GUIDELINES FOR THE USE OF THE QUALIFIER /ANALOGS & DERIVATIVES

Peri Schuyler, Index Section, NLM

The notes below are a synthesis of the instructions given at the 1975 Indexing Orientation sessions held for all NLM and local and out-of-town indexers between 27 September and 11 October at the Library. A new qualifier /analogs & derivatives (abbreviated /analogs by indexers and AA by searchers) became available for use with Category D terms with the indexing for the 1975 issues of Index Medicus. The principles stated below will be followed closely by indexers in using the new qualifier.

The Medical Subject Headings Section has stated the scope of /analogs & derivatives as follows:

> "Used with drugs and chemicals for substances that share the same parent molecule or have similar electronic structure but differ by the addition of other atoms or molecules. Used when the specific chemical heading is not available, and no group heading exists."

A derivative is a compound formed by the addition (or removal) of a substituent to the parent compound, as, e.g., methylurac 1 which is formed by the addition of a methyl group to the uracil nucleus; an analog is a compound formed by replacing a component of the parent compound with some other atom or atoms, as, e.g., azainosine, in which a carbon atom in the original inosine nucleus has been replaced by a nitrogen (aza) atom. It is not necessary for indexers or searchers to distinguish between the two, since the qualifier applies to both situations. Indexers will use the qualifier /analogs & derivatives following the policy below.

Analogs & derivatives may be used with the following:

1. Compounds whose MeSH form is singular, i.e., IPRONIAZID, ADENOSINE, STEARIC ACID, etc.

2. Esters of alcohols and acids. When the ester is of a very simple nature, such as methyl or ethyl esters or acetates, it is sufficient to index the parent compound with the qualifier /analogs & derivatives without further coordination. However, when the ester is more complex, the indexer should index the parent compound /analogs & derivatives and the name of the ester, if available, NIM. The minor descriptor ESTERS as an NIM coordinate will not be used unless it is the point of the article. When it is used, it will usually be without any subheadings; it is never used with /analogs & derivatives.

Three examples showing the indexing of esters follow:

arachidonic acid methyl ester: ARACHIDONIC ACID/*analogs & derivatives
and not METHANE (NIM)
or METHYLATION (NIM)
or ESTERS (NIM)

but betamethasone 17-valerate: BETAMETHASONE/*analogs & derivatives
and VALERATES (NIM)
and not ESTERS (NIM)

However, an article entitled "The properties of a series of cholesteryl esters: effect of increasing chain length in the ester moiety" is indexed:

CHOLESTEROL/*analogs & derivatives
and ESTERS (NIM)
and STRUCTURE-ACTIVITY RELATIONSHIP (NIM)

3. Compounds from which a substituent has been removed, as in deoxy, dehydro, demethyl, etc. For example:

"A new chlorpromazine derivative, dehydrochlorpromazine"

CHLORPROMAZINE/*analogs & derivatives

4. Compounds prefixed by the terms listed below. While this list is by no means definitive, it covers the most commonly encountered substituents. Indexers use these coordinations wherever possible, and searchers should not hesitate to request assistance from the chemical specialist at NLM whenever in doubt as to how the chemicals have been indexed.

acetoxy	aryloxy	chloro	ethyl	methoxy	phenyl
acetyl	aza	dehydro	fluoro	methyl	propoxy
acyl	azo	deoxy	halo	mono	propyl
alkoxy	bromo	desoxy	hydro	nitro	propyloxy
alkyl	carba	di	iodo	oxa	tetra
alkyloxy	carbo	epoxy	iso	oxo	thia
aryl	carboxy	ethoxy	keto	phenoxy	tri

The coordinate indexing instructions and notes below should aid in indexing and searching for chemicals containing the terms in the preceding list:

acetoxy	- may also appear as "acetate" after parent name
alkoxy	- any alkoxy group, as ethoxy, methoxy, propoxy, butyloxy etc.
alkyl	- any alkyl group, as ethyl, methyl, propyl, pentyl, octyl, etc.
alkyloxy	- see "alkoxy" above
aryl	- any aryl group, as phenyl, benzyl, naphthyl, etc.
aryloxy	- any aryloxy group, as phenoxy, naphthoxy, etc.
aza	- coordinated with AZA COMPOUNDS (NIM); do not confuse with azo.
azo	- coordinated with AZO COMPOUNDS (NIM); do not confuse with aza
carboxy	- also dicarboxy, tricarboxy, or carboxylate; coordinated with DICARBOXYLIC ACIDS, TRICARBOXYLIC ACIDS, or CARBOXYLIC ACIDS (NIM), respectively
di	- usually attached to some other substituent as dihydro, dichloro, etc.
epoxy	- also "epoxide" after parent name; coordinated with EPOXY COMPOUNDS (NIM)
ethoxy	- coordinated with ETHYL ETHERS (NIM) or ETHOXY COMPOUNDS (NIM)
halo	- general term for specific bromo, chloro, fluoro and iodo
hydro	- usually dihydro, trihydro, or tetrahydro
keto	- coordinated with KETO ACIDS (NIM) when occurring with amino or carboxylic acids, with KETOSTEROIDS (NIM) when occurring with steroids
methoxy	- coordinated with METHYL ETHERS (NIM)
mono	- usually attached to some other substituent, as monochloro, monohydro, etc.
nitro	- coordinated with NITRO COMPOUNDS (NIM)
oxo	- synonymous with "keto"; see note above
phenoxy	- coordinated with PHENYL ETHERS (NIM)
tetra	- usually attached to some other substituent, as tetrahydro, tetrachloro, etc
thia	- note spelling: thio compounds will usually require the advice of the chemical specialist
tri	- usually attached to some other substituent, as trichloro, trimethyl, etc.

Coordination, if used properly, will aid the searcher in retrieving a specific analog or derivative rather than all the analogs and derivatives of a compound. For example:

11-chlorocholesterol: CHOLESTEROL/*analogs & derivatives
STEROIDS, CHLORINATED (NIM)

5-azainosine : INOSINE/*analogs & derivatives
AZA COMPOUNDS (NIM)

Analogs & derivatives may not be used with the following:

1. Group or class terms: any term appearing in MeSH in the plural form; the plural form implies broad coverage within a particular family of compounds, i.e., PYRIDINES, NAPHTHALENES, FATTY ACIDS, etc. If a minor descriptor is mapped to a major descriptor which is a group or class term (plurals) that minor descriptor will never be used with /analogs & derivatives as an IR qualifier. For example:

"The chemistry of phosphatidylethanolamine derivatives"
PHOSPHATIDYLETHANOLAMINE (IM)
PHOSPHATIDYLETHANOLAMINE/analogs & derivatives (NIM)
CHEMISTRY (NIM)

Since PHOSPHATIDYLETHANOLAMINE is a minor descriptor mapped to the group term CEPHALINS, the qualifier must be NIM or it would appear in Index Medicus with the group term CEPHALINS, an illegal combination. The searcher must remember never to search for a minor descriptor with /analogs & derivatives as an IM heading.

2. Simulants: drugs which simulate or display pharmacological properties of another drug, but do not chemically resemble it. For example:

"A novel agent mimicking the pharmacological effects of epinephrine"

* EPINEPHRINE
but not EPINEPHRINE/*analogs & derivatives

3. Action terms: terms characterizing the function of the compound, as TRANQUILIZING AGENTS, ANTINEOPLASTIC AGENTS, SCHISTOSOMICIDES, etc. For example:

* ANALEPTICS
and THEOPHYLLINE/*analogs & derivatives
but not ANALEPTICS/*analogs & derivatives

4. Enzymes: follow the standard policy of looking up the enzyme in Enzyme Nomenclature and using the "Key to the Indexing of Enzymes."

5. Blood proteins and all indentions.

6. Most terms in D24, D25, and D26.

7. Salts of compounds: these include terms followed by the symbols or words, HCl, HBr, HI, Na (sodium salt), K (potassium salt), hydrochloride, hydrate, tartrate, etc. In foreign literature, these may be seen as chlorhydrate, chlorure, bromure, etc.

8. Complex chemical formulas and experimental drugs (SC-12754, Ro 6-4732, etc.) for which the searcher is advised to request assistance from the chemical specialist at NLM.

9. Compounds prefixed by terms in the following list:

allo	bis	epsilon	levo	O, o	S
alpha	cis	erythro	m	omega	sym
amino	D, d	gamma	meso	ortho	syn
anti	dextro	homo	meta	P, p	thio
apo	DL, dl	hydroxy	N,n	R	threo
asym	epi	L, l	nor	rac	trans
beta					(+), (-), (±)

The addition of the qualifier /analogs & derivatives has added greatly to the specificity of indexing capabilities and therefore to the specificity of searching. No longer will the searcher have to wade through all of the citations dealing with a parent compound in order to find only those dealing with its analogs or derivatives.

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U.S. DEPARTMENT OF HEALTH, EDUCATION, AND WELFARE
Public Health Service
National Institutes of Health

LIBRARY NETWORK/MEDLARS TECHNICAL BULLETIN
of the
Library Component of the Biomedical
Communications Network

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The LIBRARY NETWORK/MEDLARS TECHNICAL BULLETIN is issued monthly by the Office of the Associate Director for Library Operations.

JOURNAL CITATION DATA BASES

SDILINE was updated with January 1975 citations at NLM on December 24 and at SUNY on December 30. MEDLINE was updated at NLM and SUNY December 30. The sizes, Index Medicus date ranges, and Entry Date range of the data bases are given below:

MEDLINE	(Jan 72 - Jan 75)	- 688,394
	(Entry Dates: 711130 to 741220)	
SDILINE	(Jan 75)	- 17,601
	(Entry Dates: 741205 to 741220)	
BACKFILE69/71	(Jan 69 - Dec 71)	- 649,346
	(Entry Dates: 681117 to 711117)	

ON-LINE TECHNICAL NOTES

PLEASE QUERY THE NLM/ON-LINE NEWS FILES DAILY FOR SPECIAL NOTICES AND MESSAGES

TYMSHARE NODE, PALO ALTO — In addition to the existing Correspondence Code Tymshare number in Palo Alto, California (415/494-3900), there is now an EBCDIC node, 415/326-7015. Both numbers are compatible with ASCII coded terminals. Users accessing the network via 2741 type terminals must determine whether their terminal is Correspondence coded or EBCDIC coded prior to selecting the appropriate Tymshare number to access the system. (EBCDIC terminals have a less than sign (<) over the number 2; Correspondence terminals have an at sign (@).)

PRINT FULL, BLANK ELEMENTS — When using the PRINT FULL command, keep in mind that whenever any element of a citation or unit record is null (blank) in the data base, neither the field identifier nor the space alloted for that element will appear in the printout. For example, in the CATLINE file if a citation has no LC number, the field identifier LC would not appear in the printout followed by blanks.

EXPLODING PLACE OF PUBLICATION — The format ALL Z1.XXX.XXX:(PN) or EXPLODE Z1.XXX.XXX:(PN) must be used to explode place of publication. Note that the colon is required and that you must put in the qualifier (PN).

SDILINE/NLM, ELHILL 2

When the January 1975 citations are input into the ELHILL 3 files (mid-December 1974), the SDILINE file at NLM which is running under ELHILL 2 will no longer be available. ELHILL 3/ SDILINE is available at NLM and SUNY. It is essential that any searches run under SDILINE/ELHILL 2 be reformulated for ELHILL 3, using the 1975 vocabulary and 7-level trees.

BILLING, STATEMENT OF ACCOUNT

Beginning with the October 1974 billing period, centers will regularly receive a "Statement of Account", along with their MEDLINE and/or TOXLINE invoices. This statement will include a listing of outstanding invoices and their respective adjustments and balances.

MESH VOCABULARY FILE, SUNY

In addition to MEDLINE and SDILINE, the MeSH VOCABULARY FILE is now available on the SUNY system.

SUBHEADINGS, SPELLED OUT vs ABBREVIATED

When subheadings that are also main headings, such as POISONING or SURGERY, are searched by themselves, that is, neither as a main heading/subheading combination nor by means of a "SUBHEADINGS APPLY" command, they must be searched in the abbreviated form. If they are spelled out, no multi-meaning message is given, and the resultant postings are for the main heading.

For instance, if the searcher is looking for citations on poisoning by any agent in newborn infants, his retrieval will vary considerably, depending on whether he uses POISONING, PO, or both:

```
SS 1 /C?
USER:
INFANT, NEWBORN AND POISONING

PROG:
SS (1) PSTG (44)

SS 2 /C?
USER:
INFANT, NEWBORN AND PO

PROG:
SS (2) PSTG (87)

SS 3 /C?
USER:
1 OR 2

PROG:
SS (3) PSTG (114)
```

BACKFILES

Clifford A. Bachrach, M.D.
Head, Medical Subject Headings Section, NLM
P.E. Pothier
MEDLARS Management Section, NLM

BACKFILE69/71 is scheduled to be available at NLM in December 1974. It will run under the ELHILL 3 OFFSEARCH programs and can be accessed by specifying BACKFILE69/71 (or BACK69) in response to the OFFSEARCH FILES? query. For a detailed description of OFFSEARCH see "Searching Multiple Data Bases in ELHILL 3 - the OFFSEARCH Command" by D. Kenton in the Library Network/MEDLARS Technical Bulletin, v.66, October 1974. There is a possibility that BACKFILE69/71 will be made available at SUNY as soon as testing and evaluation at NLM are completed.

BACKFILE69/71 will contain citations from 1969 through 1971. It will therefore supersede the ELHILL 2 files MEDFILE and COMPFILE, which will no longer be available as of December 31. BACKFILE66/68, containing citations from 1966 through 1968, has not yet been built.

Due to space limitations the Index and Postings file will NOT be mounted for BACKFILE69/71. The user will therefore receive no notification of either POSTINGS or NO POSTINGS from this file. Moreover, no retrieval will be printed except off-line through OFFSEARCH.

In order to use BACKFILE69/71 efficiently, the user must take great pains to establish the validity of his search terms before entering the search. Since the system will not issue NO POSTINGS notices, the user will not be alerted to misspellings or to terms which were not in the vocabulary prior to the current edition of MeSH. The user should verify the entry dates of terms whose currency in the years prior to 1972 is questionable by referring to:

Old editions of MeSH
The Cumulated List of New Medical Subject Headings 1963-1973
The MeSH Vocabulary File under ELHILL 3

None of these methods is entirely satisfactory. Old editions of MeSH are often not available. The Cumulated List carries the dates that terms became main headings, but does not include terms that were still provisional headings in 1973; nor does it indicate the date a main heading became a provisional heading, which may have been several years prior to its acceptance as a main heading.

The MeSH Vocabulary File has the disadvantage that its use requires the searcher to do a preliminary on-line search before he proceeds to his backfile search. But it is available to all users, and it contains entry dates and history notes for most terms. The searcher simply logs in to MEDLINE, accesses the MeSH Vocabulary File with the command "FILE MESH", and then ORs all the terms that he contemplates using in his backfile search. The command "PRINT MH, DC, IE, AE, DM, HN" will then give him a list of each heading with the descriptor class (DC), the date it was introduced as a minor descriptor if it was ever a minor descriptor (IE), the date it became a major descriptor (if it has) (AE), and the heading(s) under which the concept was previously indexed (HN). For minor descriptors the DM field identifies the major descriptor to which the minor descriptor is mapped. For on-li

search purposes, the relevant date is the minor date (IE) if there is one, and otherwise the major date (AE). If there is neither a major nor a minor date, and the term is a major descriptor, then (with a few exceptions) the term has been available to indexers since the beginning of 1964. The exceptions are the 1974 major descriptors that were not previously provisionals. MeSH file maintenance will be necessary to complete these entries by adding AE = 740101 and a history note. If there is no date and the term is a minor descriptor, the term is one that became available to indexers with the start of 1975 indexing.

The searcher may distinguish between major and minor descriptors by noting the descriptor class (DC). Descriptor Class 1 is a major descriptor; Descriptor Class 7 is a minor descriptor.

The lookup may be an interactive process. For example, the searcher who proposes to do a 1968-69 backfile search using the term Poly I-C will find that this term was introduced in 1971. The terms mentioned in the history note of Poly I-C should then be looked up to determine whether they, in turn, were available to indexers in 1968 and 1969.

It will be necessary for us to supplement the MeSH Vocabulary File by adding an (IE) date to each minor descriptor except those which were previously provisional headings. Although for the present it may be assumed that the (IE) date for any minor descriptor that is blank in this field is 750101, this will no longer be the case when we begin adding additional minor descriptors after that date. Minor descriptors have no history note, but the appropriate place to search for pertinent citations prior to the (IE) date is suggested by the major descriptor to which the minor descriptor is mapped (DM).

The following example shows the use of the MeSH Vocabulary File to determine the effective dates of three terms.

```
USER:
"FILE MESH"

PROG:
YOU ARE NOW CONNECTED TO THE MESH VOCABULARY FILE.

SS 1 /C?
USER:
POLYCYCLIC COMPOUNDS OR POLY I-C OR THYMIDINE PHOSPHATES

PROG:
SS (1) PSTG (3)

SS 2 /C?
USER:
"PRT MH, DC, IE, AE, DM, HN"

PROG:
```

	BACKFILE69/71	BACKFILE66/68
MH- POLYCYCLIC COMPOUNDS DC- 1 AE- 660101 HN- HETEROCYCLIC COMPOUNDS HN- HYDROCARBONS	Use MH	Use MH
MH- POLY I-C DC- 1 IE- 710401 AE- 730101 HN- SPECIFIC ACTION TERM HN- INTERFERON *BIOSYNTHESIS HN- POLYNUCLEOTIDES	Use MH OR HN	Use HN
MH- THYMIDINE PHOSPHATES DC- 7 DM- THYMINE NUCLEOTIDES:2	Use DM OR THYMINE AND NUCLEOTIDES	Use THYMINE AND NUCLEOTIDES

POLYCYCLIC COMPOUNDS became a main heading in 1966 and is therefore valid for all files. POLY I-C became a provisional heading in 1971. It is therefore valid for eight months of BACK69. However, the terms in the HN field must be used for 1969 and 1970 and all of BACK66. The searcher will find on further searching in the MeSH Vocabulary File that neither INTERFERON nor POLYNUCLEOTIDES has anything in the IE or AE fields. They can therefore be presumed valid for all files THYMIDINE PHOSPHATES is a minor descriptor (DC 7) mapped to THYMINE NUCLEOTIDES. Further search will show that THYMINE NUCLEOTIDES became a minor descriptor in 1971 and is thus valid for part of BACK69. At this point the MeSH Vocabulary File lets the user down, since the record for THYMINE NUCLEOTIDES has no history note. However, relying on his native ingenuity and remembering the principle of coordinate indexing, he will have no difficulty discovering that the coordination of THYMINE with NUCLEOTIDES will retrieve the desired citations prior to 1971. The number 2 following THYMINE NUCLEOTIDES in the example indicates that THYMIDINE PHOSPHATES is a "see under" cross reference in Index Medicus; i.e., the entry in Index Medicus reads THYMIDINE PHOSPHATES see under THYMINE NUCLEOTIDES. (The number 1 in the DM field indicates a "see" reference and the number 3 a "see related" reference.)

The backfile searcher does not have to be concerned about main headings that have been deleted because:

(1) they have been few
(2) the citations that were indexed to them have been file-maintained to new headings or other appropriate headings, or, in a few cases, were deleted

In the case of dropped "provisionals", there is little cause for concern because:

(1) they have been few

(2) the citations under each have been few (This is generally the reason for dropping them.)
(3) the citations were mapped, by the indexer, to other relevant print headings

Because of the massive restructuring of the trees, the searcher who uses a backfile explosion may retrieve some things in a backfile search that he would not have retrieved by using the trees that were in effect when the material in the backfile was indexed. In most searches, this effect will be small, and, on balance, searching old files with new trees may improve the retrieval.

ASSIGNMENT OF ADDITIONAL (MULTIPLE) USER CODES

Joseph Leiter, Ph.D.
Associate Director, Library Operations, NLM

Below is the substance of the text of a letter sent recently to the Regional Medical Library Directors.

In view of current system constraints it is necessary to defer the allocation of second user codes to MEDLINE Centers. Any requests now pending will be held until further notice.

NLM will notify all RML's when it will again be possible for MEDLINE Centers to obtain second user codes. RML Directors have been asked to notify all centers in their Region to channel requests for second user codes through the RML office. These requests, which should state the proposed use for a second code, will then be forwarded to Library Operations, NLM, by the RML Directors.

Unless system capabilities are such that the assignment of multiple codes is inadvisable, NLM sees no major reasons for a restrictive policy other than the requirement that the second code be administered by the same institution or agency which signed the original Memorandum of Understanding. However, it is essential that such activity be channeled through the RML to assure regional coordination of network activity.

USE OF THE CENTRAL CONCEPT INDICATOR (*) WITH MAJOR DESCRIPTORS, MINOR DESCRIPTORS AND ENTRY TERMS

Jan Farmer, Library Associate, NLM

For searching in MEDLINE the central concept indicator, i.e., asterisk (*), entered before a subject heading (major descriptor, minor descriptor, or entry term) or a tree number limits retrieval to those citations in which the requested heading is a central concept of the cited articles. Those citations will also appear printed in Index Medicus under the appropriate major descriptor represented by the asterisked heading. (For a discussion of the meaning of the terms "major descriptor", "minor descriptor", and "entry term" see "The 1975 Interim MeSH: an Indexer's View" in the Library Network/MEDLARS Technical Bulletin for November 1974, p. 18.)

Two areas of variation between search statement input and system output in the MEDLARS II system are:

(1) placement of the asterisk in the search statement as compared to the computer record

(2) computer mapping of minor descriptors and entry terms asterisked by the indexer to the appropriate major descriptors used as headings in Index Medicus.

The chart accompanying this article compares the search statement involving asterisked terms with the corresponding computer record and the Index Medicus headings used for the citations. An example is given for each variation.

As shown by the chart, in the search statement the asterisk is always placed before the main heading (major descriptor, minor descriptor, or entry term) or tree number, never before the subheading. In the computer record, however, the asterisk appears before the subheading when the main heading/subheading combination represents a major point of the article.

Because of new computer mapping capabilities in MEDLARS II, the asterisked heading used in the search statement is not always the same as the corresponding heading used in Index Medicus or in the computer record for a citation retrieved. The computer automatically maps a minor descriptor or an entry term asterisked by the indexer to the corresponding major descriptor used as an Index Medicus heading. (See Items 6 and 7 in the chart.) In these cases, the minor descriptor will also appear in the computer record, but the entry term will not.

If the indexer does not asterisk a term, however, mapping does not proceed in the same way for minor descriptors as for entry terms. An entry term without an asterisk will still be mapped to its corresponding major descriptor, but a minor descriptor with no asterisk will not be mapped. Thus a minor descriptor searched without the asterisk will retrieve those citations specifically indexed to that term, but no citations indexed to the corresponding major descriptor only. (See Item 8.)

In summary, entering an asterisk before a heading or tree number is an on-line search strategy for limiting retrieval to citations for which that heading represents a major subject concept. The mapping capabilities of MEDLARS II allow use of the asterisk with any term in MeSH, including entry terms and minor descriptors.

SEARCH STRATEGY	RETRIEVAL	
Search Statement	MeSH Heading (MH) Portion of Computer Record for Citation(s) Retrieved by Computer Search	Heading(s) Under Which Citation(s) are Printed in Index Medicus
1. *MAJOR DESCRIPTOR Example: *POLIOVIRUS VACCINE	*MAJOR DESCRIPTOR MAJOR DESCRIPTOR/*subheading Examples: *POLIOVIRUS VACCINE POLIOVIRUS VACCINE/*therapeutic use/isolation & purification POLIOVIRUS VACCINE/*isolation & purification POLIOVIRUS VACCINE/*pharmacodynamics	MAJOR DESCRIPTOR MAJOR DESCRIPTOR subheading Examples: POLIOVIRUS VACCINE POLIOVIRUS VACCINE therapeutic use POLIOVIRUS VACCINE isolation & purification POLIOVIRUS VACCINE pharmacodynamics
2. *MAJOR DESCRIPTOR/subheading Example: *POLIOVIRUS VACCINE/pharmacodynamics	MAJOR DESCRIPTOR/*subheading(s) Examples: POLIOVIRUS VACCINE/*pharmacodynamics /therapeutic use POLIOVIRUS VACCINE/*pharmacodynamics	MAJOR DESCRIPTOR subheading Example: POLIOVIRUS VACCINE pharmacodynamics
3. EXPLODE *TREE NUMBER Example: EXPLODE *D24.310.894.899 (tree number for VIRAL VACCINES)	*MAJOR DESCRIPTOR "A" MAJOR DESCRIPTOR "A"/*subheading *MAJOR DESCRIPTOR "B" MAJOR DESCRIPTOR "B"/*subheading etc. Examples: *POLIOVIRUS VACCINE POLIOVIRUS VACCINE/*isolation & purification *POLIOVIRUS VACCINE, ORAL POLIOVIRUS VACCINE, ORAL/*therapeutic use etc.	MAJOR DESCRIPTOR "A" MAJOR DESCRIPTOR "A" subheading MAJOR DESCRIPTOR "B" MAJOR DESCRIPTOR "B" subheading etc. Examples: POLIOVIRUS VACCINE POLIOVIRUS VACCINE isolation & purification POLIOVIRUS VACCINE, ORAL POLIOVIRUS VACCINE, ORAL therapeutic use etc.

SEARCH STRATEGY	RETRIEVAL	
Search Statement	MeSH Heading (MH) Portion of Computer Record for Citation(s) Retrieved by Computer Search	Heading(s) Under Which Citation(s) are Printed in Index Medicus
4. EXPLODE *TREE NUMBER/subheading Example: EXPLODE *D24.310.894.899/pharmacodynamics	MAJOR DESCRIPTOR "A"/*subheading MAJOR DESCRIPTOR "B"/*subheading etc. Examples: POLIOVIRUS VACCINE/*pharmacodynamics POLIOVIRUS VACCINE, ORAL/*pharmacodynamics etc.	MAJOR DESCRIPTOR "A" subheading MAJOR DESCRIPTOR "B" subheading etc. Examples: POLIOVIRUS VACCINE pharmacodynamics POLIOVIRUS VACCINE, ORAL pharmacodynamics etc.
5. "SUBHEADINGS APPLY subheading" *MAJOR DESCRIPTOR Example: "SUBHEADINGS APPLY pharmacodynamics" *POLIOVIRUS VACCINE	MAJOR DESCRIPTOR/*subheading Example: POLIOVIRUS VACCINE/*pharmacodynamics	MAJOR DESCRIPTOR subheading Example: POLIOVIRUS VACCINE pharmacodynamics
6. *ENTRY TERM *ENTRY TERM/subheading Examples: *SALK VACCINE *SALK VACCINE/therapeutic use	*MAJOR DESCRIPTOR MAJOR DESCRIPTOR/*subheading Examples: *POLIOVIRUS VACCINE POLIOVIRUS VACCINE/*therapeutic use	MAJOR DESCRIPTOR MAJOR DESCRIPTOR subheading Examples: POLIOVIRUS VACCINE POLIOVIRUS VACCINE therapeutic use
7. *MINOR DESCRIPTOR *MINOR DESCRIPTOR/subheading Examples: *ALASTRIM *ALASTRIM/etiology	*MAJOR DESCRIPTOR } in same record *MINOR DESCRIPTOR } MAJOR DESCRIPTOR/*subheading } in same record MINOR DESCRIPTOR/*subheading } Examples: *SMALLPOX } in same record *ALASTRIM } SMALLPOX/*etiology } in same record ALASTRIM/*etiology }	MAJOR DESCRIPTOR MAJOR DESCRIPTOR subheading Examples: SMALLPOX SMALLPOX etiology
8. MINOR DESCRIPTOR without * Example: ALASTRIM	MINOR DESCRIPTOR Example: ALASTRIM	Not in Index Medicus

NEW SERIALS ANNOUNCEMENT - NOVEMBER 1974
Serial Records, Technical Services Division, NLM

The following substantive serial titles were received or ordered by the Serial Records and Binding Section during the month of November. An asterisk (*) next to the title indicates that an issue has actually been received in the library. The list is offered as an early announcement. Information provided is not authorized NLM cataloging data.

*ALICYCLIC CHEMISTRY
2, 1974--
Chemical Society, London, England
Continues in part ALIPHATIC, ALICYCLIC, AND SATURATED HETEROCYCLIC CHEMISTRY

AMERICAN JOURNAL OF HEMATOLOGY
1, 1975--
Alan R. Liss, New York

CHINESE MEDICAL JOURNAL (English Edition)
1975--
Chinese Medical Association, Peking, China

CLINICAL BACTERIOLOGY
1, 1974--
Kindai Shuppan, Tokyo, Japan

CONTACT DERMATITIS
1, 1975--
Munksgaard, Copenhagen, Denmark

DIRECTORY OF UNPUBLISHED EXPERIMENTAL MENTAL MEASURES
1, 1974--
Behavioral Publications, New York

INDEX TO SCIENTIFIC REVIEWS
1, 1975--
Institute for Scientific Information, Philadelphia, Pennsylvania

INTERNATIONAL DIRECTORY OF PSYCHIATRISTS AND MENTAL HOSPITALS
1, 1975--
Behavioral Publications, New York

JOURNAL OF COMMUNITY HEALTH
1, 1975--
Behavioral Publications, New York

JOURNAL OF THE INTERNATIONAL ACADEMY OF PREVENTIVE MEDICINE
1, 1974--
International Academy of Preventive Medicine, Houston, Texas

JOURNAL OF NEUROSCIENCE RESEARCH
1, 1975--
Alan R. Liss, New York

JOURNAL OF SEX AND MARITAL THERAPY
1, 1974/75--
Behavioral Publications, New York

MEDIKON
1, 1974?--
European Press, Ghent, Belgium

NEW HORIZONS IN PSYCHOTHERAPY
1, 1975--
Behavioral Publications, New York

NEW HUMAN SERVICES REVIEW
1, 1975?--
Behavioral Publications, New York

PERSPECTIVES IN BIOMETRICS
1, 1975--
Academic Press, New York

*REVISTA de CHIRURGIE, ONCOLOGIE, RADIOLOGIE, ORL, OFTALMOLOGIE, STOMATOLOGIE: SERIA CHIRURGIE
23N7, 1974--
Editura Medicala, Bucharest, Rumania
Continues CHIRURGIA

*REVISTA MEDICA del URUGUAY
1, 1974--
Sindicato Medico del Uruguay, Montevideo, Uruguay

*REVISTA de MEDICINA INTERNA, NEUROLOGIE, PSIHIATRIE, NEUROCHIRURGIE, DERMATOVENEROLOGIE: SERIA MEDICINA INTERNA
26N7, 1974--
Editura Medicala, Bucharest, Rumania
Continues MEDICINA INTERNA

*REVISTA de PEDIATRIE, OBSTETRICA SI GINECOLOGIE: SERIA PEDIATRIE
23N4, 1974--
Editura Medicala, Bucharest, Rumania
Continues PEDIATRIIA

*REVUE ROUMAINE de MEDECINE
12, 1974--
Bucharest, Rumania
Continues REVUE ROUMAINE de MEDECINE INTERNE, REVUE ROUMAINE d'ENDOCRINOLOGIE, AND REVUE ROUMAINE de NEUROLOGIE et de PSYCHIATRIE

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60	April
61	May
62	June
63	July
64	August
65	September
66	October
67	November
68	December

LIBRARY NETWORK/MEDLARS technical bulletin

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JANUARY through DECEMBER

Numbers 57-68

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U.S. Department of Health, Education, and Welfare
Public Health Service
National Institutes of Health

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