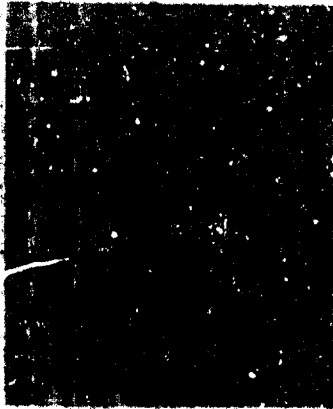


AD 640 112



BOOZ · ALLEN APPLIED RESEARCH INC.

CLEARINGHOUSE FOR FEDERAL SCIENTIFIC AND TECHNICAL INFORMATION		
Hardcopy	Microfiche	
2.00	.50	.36 <i>25</i>
1 ARCHIVE COPY		

Best Available Copy

Distribution of this  
Document is Unlimited

Technical Report

AD 640 112

MECHANIZATION STUDY  
OF THE TECHNICAL LIBRARY  
U. S. NAVAL SHIP MISSILE  
SYSTEMS ENGINEERING STATION,  
PORT HUENEME, CALIFORNIA

Submitted to

Defense Supply Agency  
Defense Documentation Center  
Cameron Station, Virginia

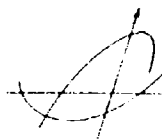
by

Booz, Allen Applied Research Inc.  
4733 Bethesda Avenue  
Bethesda, Maryland 20014

Under Contract No. DSA-7-15489

BAARINC Report No. 914-1-17

September 1966



BOCZ • ALLEN APPLIED RESEARCH INC.

WASHINGTON  
CLEVELAND  
CHICAGO  
LOS ANGELES

## ABSTRACT

The Technical Library at the U.S. Naval Ship Missiles Systems Engineering Station (USNSMSES) employs data processing equipment in the indexing of all materials regardless of subject or format. The indexes are printed out in book form by computer. A statistical inventory of the collection is maintained automatically. IBM 705 and 1401 computers are employed in the mechanized system. Although the costs of the file conversion to the system were high, the large volume of data being processed appears, in the Library's opinion, to justify the use of computers.

# T A B L E O F C O N T E N T S

	<u>Page Number</u>
ABSTRACT	i
INDEX OF FIGURES	v
I. SUMMARY	1
II. MECHANIZATION	
1. Chronology	3
2. Mechanized Process	3
(1) Input Procedures--Indexing	3
(2) Input Procedures--Inventory Record	8
(3) Outputs	8
3. Major Problems	10
4. Activities Under Development	11
III. PROGRAM SYSTEM DATA	
1. Major Files	12
(1) Teclib Master File	12
(2) Report Master File	12
(3) Keyword Master File	12
(4) Title Master File	13
2. Programs	13
(1) Teclib Maintenance	13
(2) Print Accession Short Form List	13
(3) Print Accession Proof List	15
(4) Report Update	15
(5) Print Report Master	15
(6) Keyword Update	15
(7) Keyword Print	15
(8) Title Update	16
(9) Title Print	16
IV. EQUIPMENT, COSTS, AND EVALUATION	
1. Equipment	17
2. Costs and Time	18
3. Evaluations	19

## A P P E N D I C E S

- A. ORGANIZATION CHART
- B. INPUTS AND OUTPUTS

INDEX OF FIGURES

	Page Number
Flow Chart—Documents Branch Programs	14

## I. SUMMARY

The Technical Library (Documents Branch of Repository Division—see Appendix A) at the U.S. Naval Ship Missiles Systems Engineering Station (USNSMSES) employs data-processing methods in the indexing of all materials regardless of subject or format. Access to the Branch's holdings is through indexes in book form, printed out by computer. These indexes are (1) Accession Number Listing, (2) Report Number Listing, (3) Bibliography Listing, and (4) Keyword Listing. A statistical inventory of the collection is also maintained automatically by the updating of the Accessions Listing.

The Technical Library was established in 1963. It provides service to the population of the station, who number between 3,000 and 4,000, and to ships wherever they are located. Approximately 800 documents are checked out for use each week.

The Library contains more than 100,000 items. These include technical reports and report-type publications, periodicals, training films, slides, transparencies, charts, drawings, books, and both

full-size and microfilm specifications. The collection is growing at the rate of 1,000 items per week. Technical reports and specifications are the most heavily represented types of material. It is the function of the Library to acquire and maintain any and all documentation applicable to the four surface missile systems (TERRIER, TARTAR, TALOS, and TYPHON Missile Systems), as well as to provide assistance to engineering and technical personnel in meeting their needs for other types of technical information.



## II. MECHANIZATION

### 1. CHRONOLOGY

The Library was established in July 1963, and immediately began development of a mechanized process for the cataloging of all documents. By July 1965 the program development was completed.

In 1965, development began of a mechanized process for charge-out/circulation control. The Library proposes to follow this in 1966 with an EAM punched-card system for controlling the disposal of classified documents.

### 2. MECHANIZED PROCESS

#### (1) Input Procedures - Indexing

When a publication is received in the Library for indexing, the indexer records the input data on a Publication Register Data Form, referred to by the Library staff as a "loading form" (see Appendix B-1). The following items are recorded:

1. Accession number. As many as six copies of a publication may be recorded, each with its own accession number, on one loading form. Each copy is assigned a specific shelf number or accession number. This number is also used as the record control number for the particular publication. Multiple entries are possible from one to six on the same source document for copies of the same publications. Accession numbers do not necessarily have to be in sequence. A suffix will be added by computer when multiple report numbers are used to describe the same publication.

2. Suffix. A letter suffix will be added by the computer to the accession number when a publication has been assigned multiple report numbers (i. e., one report number by the preparing agency, another by the monitoring agency, etc.). Suffix A would then indicate the report number listed on the first line 9 of the Publication Register Data Form, and Suffix B a different report number for another copy of the same document.

3. Employee number. This number is recorded only when a publication is to be charged out to an employee permanently or semipermanently. If the publication is the personal property of the employee, and is being indexed only to show the presence of a copy on the station, the "O/P" column is checked.

4. Department. This is a three-digit code number that indicates the intended use of the document such as for lending on station, for supplying to ships and other off-station activities, or for use under security restrictions.

5. Security classification

6. System application. This item is checked to show which weapon system is the subject of the publication. If the document does not concern a weapon system, the "none" column is checked.

7. Julian date. This is entered to show the date on which the document was indexed.

8. Type of change. The type A entry is used to indicate that a new accession is being added to the collection. A type B entry is used to update records such as publication revisions, changes, and dates. The type C entry indicates that the revision or change affects an accession number with a suffix. The type D change is used to show that the document in question is being withdrawn from rather than added to the collection. A type D change instructs the program to delete all records for that accession number. A type E change is used for the same purpose as a type D change but affects only accession numbers with suffixes. A type F change will add a new suffix to an entry already in the record. For this change, the additional report number represented by the suffix must be entered on line 9.

9. Publication date of the document

10. Report number. On this line is entered the report number of the document, whether it be an original document or a revision, change, additional volume, etc., to a document already in the file. If two or more report numbers for the same document are to be listed, they are entered in card column 9 (shaded lines).

11. Author's last name and initials

12. Title. (In the case of a classified title, the words "Title Classified" are entered instead of the title itself.) To aid in identification, the title is written as completely as possible, and the first word is never abbreviated.

13. Keywords. As many as four keywords which describe the subject matter of the document may be entered here. A keyword may actually consist of several words, such as Fleet Ballistic Missile or TALOS Tactical Test Equipment. Since such phrases may not fit into the space available for a keyword, the thesaurus contains abbreviations for them, derived from the publications themselves or from MIL-STD-12B. Thus, the keywords shown above as examples would be written as FBM and TATTE.

Many of the keywords are permutations of the terms within the keyword. Appendix B-2 shows a number of examples.

When the loading form is completed, it is sent to the data-processing group to be keypunched (see Appendix B-3), and the input is transferred to a master computer tape. The document is then prepared for use according to its format and is filed by accession number.

(2) Input Procedures—Inventory Record

The Inventory Record is maintained automatically by deleting the records for documents which have been permanently withdrawn from the collection. A loading form is prepared for the record to be deleted, and the appropriate D or E-type of change is indicated. When a record is deleted, the accession number for that document is reassigned to an incoming document, so that there are no gaps in the accession numbers. This is done to conserve file space and to maintain the numerical order.

(3) Outputs

1. Accession Number Listing

This is the shelf list, which is used to show the location of a document and also to identify it specifically. The list is printed out quarterly in full and shows the holdings of the Library in straight accession number order. The Accession Number Listing shows classification, accession number, department report number, title, and date for each accession (see Appendix B-4). A cumulative supplement to the Accession Number Listing is produced each week, showing all new accessions since the latest quarterly listing.

## 2. Report Number Listing

This list is produced weekly. It is arranged in alphanumeric order by report number and shows classification, report number, title, date, author, source, keywords, system application, accession number, and department number (see Appendix B-2). Items which do not have report numbers are listed in alphabetical order by title at the beginning of the list. The report number listing is used to locate a document for which the report number is the best or only identification available to the requester. This listing is also used by the Library staff to retrieve documents to which additions or changes are to be made.

## 3. Bibliography Listing

This is a monthly list, giving the title and report number arranged in alphabetical order by title (see Appendix B-5). It is used to locate a document when the title is known.

## 4. Keyword Listing

An updated printout of this list is produced each quarter. It is arranged in alphanumeric order by keywords,

referencing each document under all keywords which have been assigned to it, and also showing classification, title, source, date, system application, and accession numbers for each document referenced (see Appendix B-6). Since as many as four keywords may be assigned to a document, it is possible for it to appear four times in the keyword listing. This index is used to find out what the Library contains on a given subject and to locate a particular document when the subject is the most accurate information the requester can supply.

5. Accession Proof List

This printout in accession number sequence is in the same format as the Report Number Listing with accession number and department number added (see Appendix B-7). It is the record of new items being added to the files.

3. MAJOR PROBLEMS

The Documents Branch found that the original system philosophy of maintaining a single basic file and sorting four ways to produce the major outputs consumed excessive amounts of computer time. This has been alleviated somewhat by dividing the basic file into four separate files in the proper sequences.



#### 4. ACTIVITIES UNDER DEVELOPMENT

The Technical Library intends to have operational in FY 66 a punched-card-oriented system for control of circulation. A manual record of all documents borrowed during a 24-hour period will be kept by the clerk at the checkout point. This will show the Julian date for that day, the accession number of the document, and the serial number and department number of the borrower. When a document is returned within the 24-hour period in which it was borrowed, the charge will be deleted by scratching through the entry in the record. At 4 p. m. each day, the checkout record for the previous 24 hours will be picked up and taken to the data-processing group to be put on EAM cards. These are automatically integrated by machine into the file. One deck of cards will be ordered by the customer's badge number and one deck by the document accession number. As documents are returned, the appropriate cards will be removed from the file. A 30-day loan or control period is assumed. The cards will be sorted mechanically each day by Julian date. The data-processing group will make a weekly sort for overdues and will print out a list in triplicate, showing accession number, borrower's number, and department number. One copy of the list will be kept in the Library. The other two will be sent to the department heads for action. One of these copies is to be returned to the Library with pertinent information regarding the action taken.

### III. PROGRAM SYSTEM DATA

#### 1. MAJOR FILES

##### (1) Teclib Master File

This file contains bibliographic and descriptive data for all items in the system, which include all the data listed on the loading form (Appendix B-1) arranged in sequence by accession numbers. Each item's record is 273 characters long, and the total file is contained on four magnetic tape reels.

##### (2) Report Master File

This file is identical to the Teclib Master File in format and content. Its sequence is by report number and accession number. It is contained in four tape reels.

##### (3) Keyword Master File

This is an inverted file of 139-character records containing classification, keyword, title, source, data, system

application, and accession number. It is arranged in sequence by keyword and is contained in four tape reels.

(4) Title Master File

This is a file of 108-character records containing the title and report number of all items in the system. It is arranged in sequence by title and is contained in two tape reels.

2. PROGRAMS (Series 150--see Figure 1)

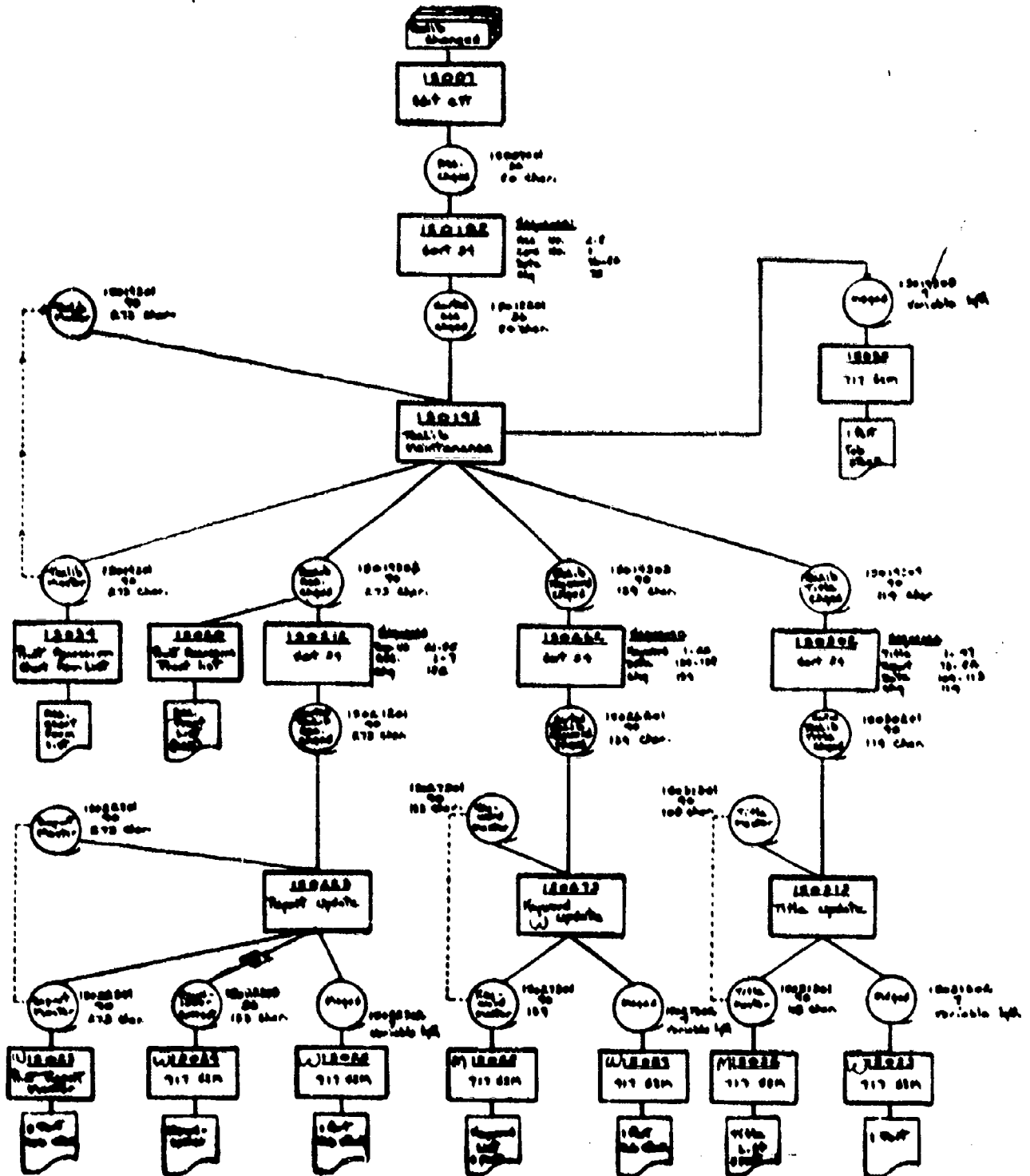
(1) Teclib Maintenance

File changes in sequence by accession number, card number, date, and type change (types are shown in Appendix B-1) are posted to the Teclib Master File. Error messages are taped for printing. The updated records are written on three separate tapes--accession changes, keyword changes, and title changes--for input to the three other master files. This program runs approximately 0.6 hours weekly.

(2) Print Accession Short Form List

The Accession Number Listing (Appendix B-4) is printed weekly from the Teclib Master File.

FIGURE 1  
Flow Chart - Documents Branch Programs



(3) Print Accession Proof List

Accession changes generated by the Teclib Maintenance program are printed weekly for verification.

(4) Report Update

Accession changes are sorted by report number, accession number, and type change and are posted to the Report Master File.

(5) Print Report Master

The Report Number Listing (Appendix B-2) is printed weekly from the Report Master File.

(6) Keyword Update

Keyword changes are sorted by keyword, date, and type change and are posted to the Keyword Master File. Error messages are taped for printing. This program runs approximately 0.6 hours weekly.

(7) Keyword Print

The Keyword Listing is printed from the Keyword Master File monthly.

(8) Title Update

Title changes are sorted by title, report number, date, and type change and are posted to the Title Master File. Error messages are taped for printing. This program runs approximately 0.2 hours weekly.

(9) Title Print

The Bibliography or Title Listing is printed from the Title Master File monthly.

#### IV. EQUIPMENT, COSTS, AND EVALUATION

##### 1. EQUIPMENT

###### IBM 705

This computer at the Construction Battalion Center is used for scientific computations, accounting, and data processing. It is available for use by any of the Navy or contractor groups of Port Hueneme and Point Mugu and runs on three shifts. Equipment components are as follows:

40 K memory

10

727 tape drives

711 Card Reader

###### IBM 1401 — support for IBM 705

4 K memory

2

729 tape drives (plans for buying 6)

1402 Card Read/Punch

1403 Printer, 132 characters.

Software

Autocoder

Sort 54

2. COSTS AND TIME

Six men in the Construction Battalion Center (CBC) are required full time to handle the logistics for all the USNSMSES programs. Some 50 to 52 man-months per month were required to do the necessary key-punch, verify, and computer operation. This figure will rise rapidly; a third shift is being added.

Average Speeds

Keypunch and verify	100 cards/hr
Film mounting	400 cards/hr.

As estimated one-third to one-half of the computer time is used by USNSMSES. Estimates on the portion used by the Document Branch were not available.

No estimate was available of the programming effort required for the Documents Branch series 150.

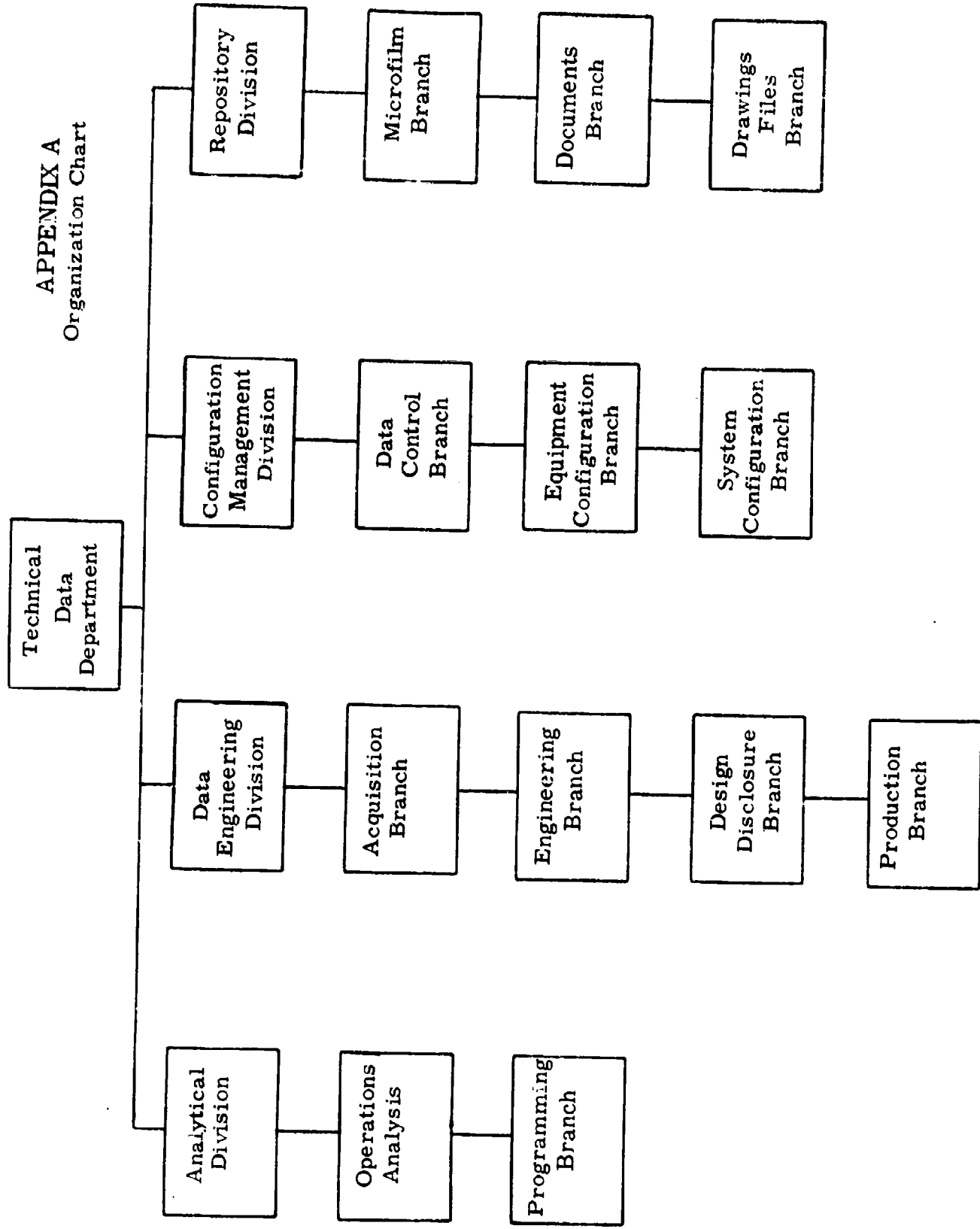


### 3. EVALUATIONS

The type of keywords used in the Documents Branch system have certain shortcomings. If two terms make up the keyword and both are likely to be used in searching, then the terms must be permuted and a second keyword must be formed. In this case, the artificial limit of four keywords per document may be too restrictive. In Appendix B-2, the fifth item shows the proper formulation of the terms "USS Byrd" and "DDG-23" into two keywords. In the keyword list, the eighth item would not appear as expected with the other DDG items and would be missed by the search.

Although file conversion costs were high, the large volume of data being processed appears to justify the use of computers.

APPENDIX A  
Organization Chart





RPT# 4342A

## NSMSES PUBLICATIONS LISTED BY REPORT NO.

C	AUTHOR	REPORT NUMBER	KEY WORD 1	TITLE	KEY WORD 2
C		ACC 15755 BUWEPS SYSTEMS APPLICATION ** ACCESS/DPT,015755 /342	TER	BTN/COLLIMATION-INSTR CAP/GUIDE CI	
C		ACC 15756 BUWEPS SYSTEMS APPLICATION ** ACCESS/DPT,015756 /342	TER, TAR	HT COHD PHASE AMBIGU RADAR AN/SPG-55A, 55B AN/SPG-55A,	
U		ACC 15961 GSA SYSTEMS APPLICATION ** ACCESS/DPT,015961 /342	NONE	CONSTITUTION	U.S. GOVERNMENT ORGAN LEGISLATIVE
C		ACC 16268 BUWEPS SYSTEMS APPLICATION ** ACCESS/DPT,016268 /342	NONE	REPORT WEPTASK	PROGRESS REP-WEPTASK WEPTASK PRO
U		ACC 1640 SUPV SHPBLDG USN SYSTEMS APPLICATION ** ACCESS/DPT,001640 /342	TAR	USS BYRD DDG-23	RICHARD E. BYRD DDG-2 DDG-23 USS E
C		ACC 16555 VITRO LAB SYSTEMS APPLICATION ** ACCESS/DPT,016555 /342	TAL		TALOS MASTER PROBLEM PROBLEMS STATUS MASTER MASTER PROBL
C		ACC 16556 BUWEPS SYSTEMS APPLICATION ** ACCESS/DPT,016556 /342	TER	DIIRECTION MK1 MO	CAG-1 WEAPON CONTROL CONTROL MK71
C		ACC 17223 BUWEPS SYSTEMS APPLICATION ** ACCESS/DPT,017223 /342	TAR		INSTALLATION TEST WE TEST WEAPON SYS DDG-4 USS LAWRENC
C		ACC 17409 WECO SYSTEMS APPLICATION ** ACCESS/DPT,017409 /342	TER, TAR, TAL		AN/USC-2 DIGITAL DATA CONTROL AN/USC-2 AN/USC-2 DAT
C		ACC 17417 WECO SYSTEMS APPLICATION ** ACCESS/DPT,017417 /342	TAR		TARTAR WEAPONS SYS MA SYSTEM MAINT TEST DDG 15-24

RT NO. - AS	Y REPORT NO. - AS OF 13 JUL 65	PAGE
TITLE	TITLE OF PUBLICATION	DATE
KEY WORD	KEY WORD 2 . . KEY WORD 3 . . KEY WORD 4	
N-INSTRUMENT GUIDE COLLIM	INATION-INSTRUMENTED HELICOPTER TESTS CAP/GUIDE COLLIMATION TRY/GUIDE COLLIMATION	
AMBIGUITY C G-55A, H SQA	PHASE AMBIGUITY CHECK AN/SPG-55A, H SUAT TEST	
ORGANIZATI LATIVE BRAN	INMENT ORGANIZATION MANJAL 1963-64 LEGISLATIVE BRANCH JUDICIAL BRANCH EXECUTIVE BRANCH	JUN6
WEPTASK RMWC SK PROG REP	REP-WEPTASK RMWC 53-055/225-1/FD17-99-03-REFLECT MSMT AIRCRAFT WEPTASK PROG REPORT REFLECTIVITY-AIRCRAFT	NOV6
DDG-23, P 23 USS BYRD	BYRD DDG-23, PRELIMINARY ACCEPTANCE TRIALS WORK LIST DDG-23 USS BYRD	FEB6
PROBLEM STAT ER PROBLEMS	TRF PROBLEM STATUS MANJAL VOLUME 1 WITH 19TH REVISION MASTER PROBLEMS STATUS	AUG6
CONTROL SYS- ROL MK71 M1	CON CONTROL SYS-MSL CONTROL INTERCONNECTING WIRING DIAGRAMS CONTROL MK71 M1 CAG-1	
TEST WEAPONS LAWRENCE DDG	ION TEST WEAPONS SYS JSS LAWRENCE DDG-4 USS LAWRENCE DDG-4	NOV6
TAL DATA COM SC-2 DATA CO	DIGITAL DATA COMMUNICATION/CONTROL SYSTEM AN/USC-2 DATA CONTROL	SEP5
IS SYS MAINTEN 15-24	APONS SYS MAINTENANCE TEST APPLICABLE TO DDG 15-24 DDG 15-24	NOV6?

2



RPT# 4342E

NSMSES PUBLICATIONS BY ACCESSION ACC

C	.ACCESS.	DPT	R F P O R T	N U M B E R	
U	S	401	340	DD 8849	OBsolete PER CITE
U	S	402	340	DD 8858	OBsolete PER CITE
U	S	403	340	DD 8859	OBsolete PER CITE
U	S	404	340	DD 8966	OBsolete PER CITE
U	S	405	340	DD 9883	OBsolete PER CITE
U	S	406	340	DD 10194	OBsolete PER CITE
U	S	407	340	DD 2847	OBsolete PER CITE
U	S	408	340		OBsolete NO STO
U	S	409	340	DD 7837	OBsolete PER CITE
U	S	410	340	DD 7630	OBsolete PER CITE
U	S	411	340	DD 6436	OBsolete PER CITE
U	S	412	340	DD 5120	OBsolete PER CITE
U	S	413	340	DD 8931	OBsolete PER CITE
U	S	414	340	DD 9536	CTDD LTR 18MAY
U	S	415	340	DD 9159	NWSJ LTR SER C
U	S	416	340	DD 9158	NWSJ LTR SER O
U	S	417	340	DD 9503	OBsolete PER CITE
U	S	418	340	DD 9107	OBsolete PER CITE
U	S	419	340	DD 9178 VI THRU V3	STOCK DEPLETFD
U	S	420	340	DD 10805	CANCELLED PER C
U	S	422	340	DD 10788	CANCELLED PER C
U	S	423	340	DD 10775	CANCELLED PER C
U	S	424	340	DD 10774	CANCELLED PER C
U	S	425	340	DD 10746	CANCELLED PER C
U	S	426	340	DD 10747	CANCELLED PER C
U	S	427	340	DD 10748	CANCELLED PER C
U	S	428	340	DD 10745	CANCELLED PER C
U	S	429	340	DD 10727	CANCELLED PER C
U	S	430	340	DD 10723	CANCELLED PER C
U	S	431	340	DD 10721	CANCELLED PER C
U	S	432	340	DD 10697	CANCELLED PER C
U	S	433	340	DD 10696	CANCELLED PER C
U	S	434	340	DD 11324	OBsolete PER C
U	S	435	340	DD 12349	CANCELLED PER C
U	S	436	340	DD 12530	CANCELLED PER C
U	S	437	340	DD 12351	CANCELLED PER C
U	S	438	340	DD 12352	CANCELLED PER C
U	S	439	340	DD 12353	CANCELLED PER C
U	S	440	340	DD 12354	CANCELLED PER C
U	S	441	340	DD 12355	CANCELLED PER C
U	S	442	340	DD 12356	CANCELLED PER C
U	S	443	340	DD 12357	CANCELLED PER C
U	S	444	340	DD 12357	CANCELLED PER C
U	S	445	340	DD 12324	CANCELLED PER C
U	S	446	340	DD 12325	CANCELLED PER C
U	S	447	340	DD 12326	CANCELLED PER C
U	S	448	340	DD 12289	CANCELLED PER C
U	S	449	340	DD 12290	CANCELLED PER C
U	S	450	340	DD 12291	CANCELLED PER C
U	S	451	340	DD 12292	CANCELLED PER C





RPT# 43420

NSMSES PUBLICATIONS BY TITLE - AS OF

TITLE OF PUBLICATION

- A CHANNEL STEERING ACCELEROMETER MALFUNCTION
- A GUIDE TO UNDERWAY EQUIPMENT EVALUATIONS
- A MAINTAINABILITY PRECISION TECHNIQUE
- A TECHNIQUE FOR MEASURING SYSTEM EFFECTIVENESS
- A WING, B WING, AND ROLLERON TRANSDUCERS OF THE AN/D54-54/VV GMS
- A.A. RANGE TABLE 12 INCH 50 CALIBER GUN
- A.F.C. CHASSIS IMPROVEMENT AN/SPS-6,64,68
- A.J. GATE GENERATOR ASSY DWG 2477649 TEST SPEC FOR
- A-C AVERAGER P/N1952067 ACCEPTANCE TEST FOR
- A-C LINE MONITOR DIFFERENTIAL DETECTOR SERVO LOAD MODULE AN/D5H-11/VV
- A-C POWER DISTRIBUTION P/N1952070 MK7 INTRE AIR FOR
- A-J GATE UNIT DWG 2269709 TEST SPEC FOR
- A-2 TEST EQUIPMENT DESCRIPTION OPERATION AND MAINTENANCE
- A-3 MOUNT MECHANISM MFG/ASSY/INSP
- A-3 1ST STAGE GLASS FILAMENT CHAMBER X-RAY INSPECTION FOR FOR/AFT P
- A/D CONVERTER SUMMING INPUT CARD FILTER MK84 MO DWG 2297725 FACT
- A/D CONVERTER SUMMING INPUT CARD FILTER MK84 MO DWG 2297725 FACT
- A/D SUMMING INPUT CARD FILTER MK84 MO DWG 2316375 FACTORY ACCEPT
- AA GUN SINGLE MOUNT ASSY MK85 MO 31N/70CAL DESIGN/DEVELOPMENT SPEC
- AA RANGE TABLE FOR 3/50 GUN
- AA RANGE TABLE FOR 40MM GUN 2900 FS INITIAL VELOCITY, PROJECTILE ME
- AA RANGE TABLE FOR 4-IN 55-CAL GUN 2,600 FS INITIAL VELOCITY
- AA RANGE TABLE 3-IN 50-CAL GUN 2600 FS INIT VEL 130-LB AA PROJ MK
- AA RANGE TABLE 6-IN 47-CAL OF GUN 2,550 FS INIT VEL 105 LB CAP PROJ
- AA RANGE TABLE 6-INCH 47 CAL GUN 2,590 FS INITIAL VELOCITY
- ABC WARFARE DEFENSE NAVY TRAINING COURSE
- ABNORMAL REAR LOCK
- ABOVE WATER TORPEDO TUBE MK85 MO
- ABRUPT LOSS OF REAR AFT LOCK
- ABSENCE OF COMMANDING OFFICERS FROM DUTY STATIONS
- ABSENCE ROLL RATE GYRO SIGNAL S/N 501
- ABSORBING MATERIAL, RADIO FREQUENCY, SPECIFICATION FOR
- ABSORBING MATERIAL, MICROWAVE
- ABSORBING MATERIAL, RADIO FREQUENCY, SPECIFICATION FOR
- ABSTRACTS OF DOCUMENTS PERTINENT TO FLEET SYSTEMS DIVISION
- AC ELECTRIC MOTOR FOR 40MM MOUNTS M-1 ME, GUN COOLING PUMP SPEC
- AC POWER MOTOR WATERPROOF ELEVATING/TRAINING GEAR MK30/37 MODS
- AC SLEWING MOTOR SHUNT WOUND GUN DIRECTORS/TRAIN RECEIVER REGULATOR
- AC/DC DIFFERENTIAL VOLTMETER MODEL 80307A5 OPER SERVICE INST PARTS
- ACCELERATION OF LABOR RATE BY 142, REQUEST FOR ESTIMATE OF AMOUNT
- ACCELERATION SWITCHES, POLARIS FROM EQUIP SPECIFICATION FOR
- ACCELERATOR ROTARY T-3047 DESC/REDS
- ACCELEROMETER AIEH VENDOR ACCEPTANCE TEST FOR
- ACCELEROMETER AND CARTRIDGE DAMAGE
- ACCELEROMETER FILTER NETWORK EL MK84 MO FACTORY ACCEPTANCE TEST FOR
- ACCELEROMETER INTEGRATING MK8 MO LD 496777 FOR WARHEAD ADAPTATION
- ACCELEROMETER MISSILE PRODUCTION TEST DESCRIPTION REQUIREMENTS

B-

B-5

ATIONS BY TITLE - AS OF BY TITLE - AS OF 21 JUL 65

PAGE NO.

PLICATION

PLICATION

REPORT

NUMBER

2  
NOTION 5/1 77-  
S

5/1 77-

VENUES

OF THE AN/DSV-54/V/ GMS, FAT AN/DSV-54/V/ GMS, FAT

SPEC FOR  
OR

FOR

LOAD MODULE AN/DSH-.../... MODULE AN/DSH-.../... T-  
.../...

AND MAINTENANCE

MAINTENANCE

Y INSPECTION FOR FORE/AFT  
M84 MG DWG 2247725 FAT  
M84 MG DWG 2247625 FAT  
2316375 FACTORY ACCEPT  
L DESIGN/DEVELOPING G SPEC

Y INSPECTION FOR FORE/AFT  
G DWG 2247725 FAT  
G DWG 2247625 FAT  
375 FACTORY ACCEPT TEST  
L DESIGN/DEVELOPING G SPEC FOR

EL VELOCITY, PROJECTILE  
IS INITIAL VELOCITY  
IT VEL 130-LB AA PROJ MK 33  
INIT VEL 105 LB CAP PROJ  
INITIAL VELOCITY

EL VELOCITY, PROJECTILE MK2  
ITIAL VELOCITY  
L 130-LB AA PROJ MK 33  
VEL 105 LB CAP PROJ M39  
L VELOCITY

STATIONS

ONS

IFICATION FOR

ATION FOR

IFICATION FOR  
SYSTEMS DIVISION OF AMI  
GUN COILING PUMP SPEC I  
INC GEAR MK30/37 MDS  
S/TRAIN RECEIVER REGULATOR  
S/PRO SERVICE INST PARTS  
T FOR ESTIMATE OF AMOUNT  
PLICATION FOR

ATION FOR  
SYSTEMS DIVISION OF AMI  
COILING PUMP SPEC I  
EAR MK30/37 MDS  
IN RECEIVER REGULATOR  
R SERVICE INST PARTS LIST  
ESTIMATE OF AMOUNT  
PLICATION FOR

ELP

ACTORY ACCEPTANCE TEST FOR  
7 FOR WARHEAD ADAPTATION KIT  
ADAPTATION REQUIREMENTS

ACTORY ACCEPTANCE TEST FOR  
WARHEAD ADAPTATION KIT  
ADAPTATION REQUIREMENTS

NAVPER'S 02413A  
OS 10561  
US 4295  
CR 336-253-021  
AD 134695  
ACC 27649  
ACC 27649  
OS 14451  
OP 1243 C1  
NS 2161  
UP 289125  
OS 20417  
OD 14474  
OD 20256  
OD 18608E  
OP 2609  
OS 2125A  
OD 19370A  
OD 27619  
OD 21520  
OP 27665  
OD 3021A  
OP 164 C1  
OP 897 1ST W  
OP 993 C1  
OP 1766 C1  
OP 1613 C1  
OP 990 C1

NAVPER'S 13000-1761 FPRINT  
CF 336-261-020  
OP 2095 VI 115  
OP 1101 1ST R C1  
CR 336-273-005  
INST 5000.85  
CF 6-336-261-331  
CS 9912A  
OS 8527A A2  
CS 12727A  
ACC 27627  
OS 3993  
OS 4204 7TH R  
OS 4208 11TH R  
NS 74659  
OPTIC 7410  
WS 3333  
OS 101649  
OD 22192  
TAL NWSLTH 6...-1A  
OD 27596  
OS 89890  
OD 11671A

2

## NSMSES PUBLICATIONS BY KEY

KEY WORD	TITLE OF PUBLICATION			
U LAMINAR FLOW	PERIODIC BOUNDARY LAYER FLOWS OVER FLAT PLATE			
	SYSTEMS APPLICATION ** NONE			
	029467	342		029469
	029466	342		029470
U LAMINATED GLASS CLOTH	CEMENTING METAL PARTS TO POLYESTER GLASS CLOTH LAMI			
	SYSTEMS APPLICATION ** NONE			
	031121	342		031122
U LAMINATED NAME PLATES	PROCEDURE/MFG LAMINATED NAMEPLATES, DIALS, ETC. BY HOI			
	SYSTEMS APPLICATION ** NONE			
	024696	342		024697
U LAMINATED PAPER TAPE	TAPE COMPUTER PERFORATOR LAMINATED PAPER/PLASTIC FIL			
	SYSTEMS APPLICATION ** TAL			
	031863	342		031864
U LAMINATED PLACARS	SHIPBOARD ORD EQUIP LAMINATED PLACARS OPER INST SAFE			
	SYSTEMS APPLICATION ** NONE			
	003192	342		
U LAMINATES	PLASTIC MATERIALS ASBESTOS-BASE PHENOLIC RESIN LOW P			
	SYSTEMS APPLICATION ** TER, TAR			
	004354	342		024896
	004355	342		024897
U LAMINATING CLOTH	FIBROUS GLASS CLOTH SILICONE IMPREGNATED LOW PRESS L			
	SYSTEMS APPLICATION ** TER, TAR			
	008043	342		024938
	008044	342		024939
U LAMINATING GLASS TAPE	LAMINATING TAPE, TENSION WRAP, FIBROUS-GLASS FILAMENT,			
	SYSTEMS APPLICATION ** TER, TAR			
	025101	342		025102
U LAMINATING RESIN	RESIN POLYESTER /LAMINATING/ SPEC FUM			
	SYSTEMS APPLICATION ** TAL			
	035595	342		035596
U LAMINATION	LAMINATE, GLASS CLOTH EPOXY RESIN, COPPER CLAD, DESCRIP			
	SYSTEMS APPLICATION ** TAL			
	020395	342		020396

KEY	WORD	AS OF	RPT#
CASTIC	ATION	SOURCE	DATE
E		APL/JHU	MAY64
29469	469		
29470	470	029471	343
OTH LAMINA	M LAMINATE	BUNEPS	SEP52
31122	122		
BY HOT P	BY HOT PRESSING TECHNIQUE	BUNEPS	DEC62
24697	697	026388	343
ASTIC FILM	TIC FILM	BUNEPS	NOV62
31864	864		
INST SAFETY	ST SAFETY PROC INFO PROCU	BUNEPS	AUG61
LOW PRE	N LOW PRESSURE LAMINATES	BUNEPS	JUL58
4896	896		
4897	897		
PRESS LAM	MPRESS LAMINATE TER-TAP BT3	PUNEPS	AUG60
4938	938		
4939	939		
ELAMENT, E	ILAMENT, EPOXIDE IMPREGNATE	BUNEPS	FEB60
5102	102		
5596	596		
DESCRIPTION	DESCRIPTION/REQUIREMENTS	BUNEPS	JUL61
6396	396		

DOCUMENT CONTROL DATA - R&D		
<i>(Security classification of title, body of abstract and indexing annotation must be entered above the report title)</i>		
1. ORIGINATING ACTIVITY (Corporate Outline): <b>BOOZ ALLEN APPLIED RESEARCH, INC. 4733 Bethesda Avenue Bethesda, Maryland 20014</b>		2a. REPORT SECURITY CLASSIFICATION: <b>Unclassified</b>
3. REPORT TITLE: <b>Mechanization Study of the Technical Library, U. S. Naval Ship Missile Systems Engineering Station, Port Hueneme, California</b>		
4. DESCRIPTIVE NOTES (Type of report and inclusive dates): <b>Final Report of on-site survey</b>		
5. AUTHOR(S) (Last name, first name, initial): <b>G. A. Kershaw, D. Crowder, J. E. Davis, E. G. Loges, E. Merendini, S. M. Thomas</b>		
6. REPORT DATE: <b>September, 1966</b>	7a. TOTAL NO. OF PAGES: <b>41</b>	7b. NO. OF PAGES: <b>0</b>
8a. CONTRACT OR GRANT NO. <b>DSA-7-15489</b>	8b. ORIGINATOR'S REPORT NUMBER(S): <b>914-1-17</b>	
A. PROJECT NO.	9a. OTHER REPORT NO(S) (Any other numbers that may be assigned this report): <b>AD 640 112</b>	
10. AVAILABILITY LIMITATION NOTICES: <b>Distribution of this Document is unlimited</b>		
11. SUPPLEMENTARY NOTES: <b>None</b>	12. SPONSORING MILITARY ACTIVITY: <b>Defense Supply Agency Defense Documentation Center Cameron Station, Virginia</b>	
13. ABSTRACT: <p>The Technical Library at the U. S. Naval Ship Missiles Systems Engineering Station (NSMSSES) employs data processing equipment in the indexing of all materials regardless of subject or format. The indexes are printed out in book form by computer. A statistical inventory of the collection is maintained automatically, and inventory of a collection of microfilm cards is also maintained by computer. IBM 705 and 1401 computers are employed in the mechanized system. Although the costs of file conversion to the system were high, the large volume of data being processed appears, in the Library's opinion, to justify the use of computers.</p>		

KEY WORDS	LINK A		LINK B		LINK C	
	ROLE	WT	ROLE	WT	ROLE	WT
<p>Libraries Digital Computers Indexes Information Systems</p>						

INSTRUCTIONS

1. **ORIGINATING ACTIVITY** - Enter the name and address of the contractor, subcontractor, agency, Department of Defense activity or other organization (include *auth* if issuing the report).
2. **REPORT SECURITY CLASSIFICATION** - Enter the overall security classification of the report. Indicate whether "Excluded Data" is included. Marking is to be in accord with appropriate security regulations.
3. **FORM** - A code indicating grading as specified in DoD Doctrines, Standards and Armed Forces Industrial Manual. Enter the group code only. Also, when applicable, show that optional marking has been assigned to a group (and group class, where applicable).
4. **REPORT TITLE** - Enter the complete report title in all capital letters. Enter in all cases, should be unclassified. If a complete title cannot be selected without classification, give a key word title in all capitals in parentheses immediately following the title.
5. **DESCRIPTIVE NOTES** - If appropriate, enter the type of report (e.g., contract, progress, summary, annual, or final), and the submission dates when a specific reporting period is used.
6. **AUTHORS** - Enter the name(s) of author(s) as shown on the report. Enter last name, first name, public initial, if available. Show rank and branch of service. The name of the principal author is an absolute minimum requirement.
7. **REPORT DATE** - Enter the date of the report as day, month, year, or month, year. If more than one date appears on the report, include date of publication.
8. **TOTAL NUMBER OF PAGES** - The total page count should be shown. If normal pagination procedure is used, enter the number of pages containing information.
9. **NUMBER OF REFERENCES** - Enter the total number of references cited in the report.
10. **CONTRACT OR GRANT NUMBER** - If appropriate, enter the applicable number of the contract or grant under which the report was written.
11. **LINK A & B PROJECT NUMBER** - Enter the appropriate military department identification, such as project number, subproject number, system numbers, task number, etc.
12. **ORIGINATOR'S REPORT NUMBER(S)** - Enter the official report number by which the document will be identified as supplied by the originating activity. This number must be included on the report.
13. **OTHER REPORT NUMBER(S)** - If the report has been published, enter report numbers *other* than the *originator's* report number(s) in the numbers.
14. **AVAILABILITY LIMITATION NOTICES** - Enter any limitation on further dissemination of the report other than those

imposed by security classification, using standard statements such as:

- (1) "Qualified requesters may obtain copies of this report from DDC."
- (2) "Foreign announcement and dissemination of this report by DDC is not authorized."
- (3) "U. S. Government agencies may obtain copies of this report directly from DDC. Other qualified DDC users shall request through \_\_\_\_\_."
- (4) "U. S. military agencies may obtain copies of this report directly from DDC. Other qualified users shall request through \_\_\_\_\_."
- (5) "All distribution of this report is controlled. Qualified DDC users shall request through \_\_\_\_\_."

If the report has been furnished to the Office of Technical Services, Department of Defense, for sale to the public, indicate this fact and enter the price, if known.

15. **SUPPLEMENTARY NOTES** - Use for additional explanatory notes.

16. **SPONSORING MILITARY ACTIVITY** - Enter the name of the departmental project office or laboratory sponsoring (paying for) the research and development. Include address.

17. **ABSTRACT** - Enter an abstract giving a brief and factual summary of the document indicative of the report, even though it may also appear elsewhere in the body of the technical report. If additional space is required, a continuation sheet shall be attached.

It is highly desirable that the abstract of classified reports be unclassified. Each paragraph of the abstract shall end with an indication of the military security classification of the information in the paragraph, represented as (TS), (S), (C), or (R).

There is no limitation on the length of the abstract. However, the suggested length is from 150 to 225 words.

18. **KEY WORDS** - Key words are technically meaningful terms or short phrases that characterize a report and may be used as index entries for cataloging the report. Key words must be selected so that no security classification is required. Identifiers, such as equipment model designation, trade name, military project code name, geographic location, may be used as key words but will be followed by an indication of technical context. The assignment of links, roles, and weights is optional.