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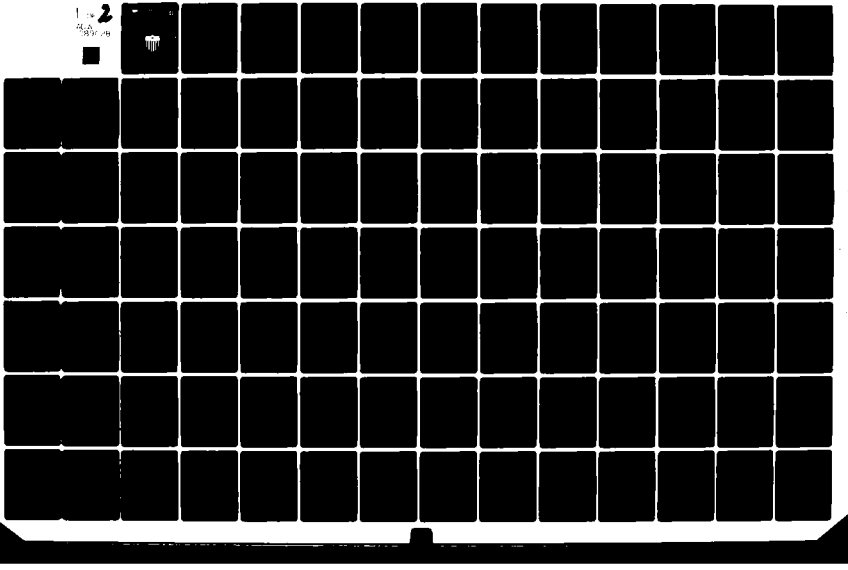

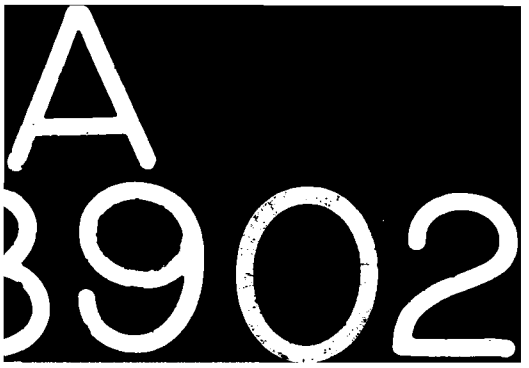
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# ARSTADS

## Report

PHASE I

VOLUME II

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REPORT NUMBER
OP-1-80

SYSTEMS DEVELOPMENT DIVISION
HEADQUARTERS ADMINISTRATIVE SYSTEMS DIRECTORATE
OFFICE OF THE ADJUTANT GENERAL

JULY 1980

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20. ABSTRACT (Continue on reverse side if necessary and identify by block number)

This report contains information pertaining to the status of administrative support for Headquarters, Department of the Army Staff agencies located in the Pentagon. It has more specific information of the status of administrative support for the office of the Deputy Chief of Staff for Personnel. In addition to the information on administrative procedures, equipment and systems, Volume I contains a concept for satisfying the requirements identified through the integration of administrative technologies. Volume II contains specifics on a system to test that concept.

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# FOREWORD

(12)

THIS VOLUME OF THE ARSTADS PHASE I REPORT CONTAINS THE RESULTS OF THE DETAILED SURVEY OF THE OFFICE OF THE DEPUTY CHIEF OF STAFF FOR PERSONNEL. VOLUME I CONTAINS THE BASIC REPORT OF THE STUDY OF ADMINISTRATIVE SUPPORT REQUIREMENTS FOR ALL HEADQUARTERS, DEPARTMENT OF THE ARMY AGENCIES LOCATED IN THE PENTAGON AT THE TIME OF THE STUDY.

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## VOLUME II

# LIST OF APPENDICES/ANNEXES

## SECTION I

## ODCSPER SURVEY OVERVIEW

1. General. This volume is an agency composite of: (a) the findings resulting from the completion of questionnaires, conduct of interviews, completion of time/typing survey forms and personal observation by ARSTADS team members; (b) the analysis of those findings by administrative technologies (i. e., word processing, data processing, micrographics and reprographics); (c) the identification and validation of administrative support problems within the agency; (d) the development of alternative solutions and costs associated with those alternatives; and (e) the development of a plan to implement and test the alternatives selected. The items listed above are discussed in succeeding paragraphs of this volume.

2. Background. The ARSTADS Study Group briefed the General Officer Steering Group on 2 August 1979. The briefing covered general administrative support problem areas within HQDA, outlined a concept aimed at the resolution of those problems, and proposed a test of that concept with ODCSPER. This is discussed in Volume I of this report. The Steering Group approved the general concept and the test of that concept within ODCSPER; however, several members were not sure that the problems identified for HQDA were valid in all cases. An ad hoc committee was formed to discuss the concerns of the agencies represented on the Steering Group. The committee decided that a further problem definition and validation was required prior to initiating a test within ODCSPER. The ARSTADS group was tasked with the development of a plan for the conduct of a survey within ODCSPER. The survey plan (Annex A) provided for the conduct of detailed ODCSPER management surveys which would result in the validation and definition of specific administrative support requirements, the development of alternative solutions to satisfy those requirements, and the development of a detailed plan to test the recommended alternatives.

3. Methodology. a. The survey was initiated on 21 September 1979 with briefings to the agency and directorate points of contact. A briefing was presented to the DCSPER and his directors on 4 October 1979 and subsequently all (present for duty) ODCSPER personnel were briefed on their role in the survey and the impact it was expected to have on them.

b. The data collection portion of the survey was initiated on 15 October 1979 and completed on 16 November 1979. Three sources were used for the data collection effort. These were a survey questionnaire (Annex B), distributed to all ODCSPER personnel present for duty during the

collection period; a time and typing survey form (Annex C), completed by all personnel present for duty during the same period; and interviews held with approximately twenty percent of ODCSPER personnel at all levels within the organization.

c. The data collected was documented several ways to facilitate the analysis process. First the results of each data source (questionnaires, time/typing forms and interview comments) were calculated and/or summarized by division, directorate and agency. Then the same information was portrayed using four categories to describe the present system. These categories were personnel, procedures, equipment/ technology and environment. This was done for each directorate and separate office. Included within the interview process was the collection of information pertaining to floor space, equipment and the use and costs associated with each.

d. The data was then analyzed and problems surfaced were compared to results from the initial ARSTADS survey of HQDA (Volume I). Validated problems were used to develop alternative solutions for improved administrative support within ODCSPER. A system was selected for the test and a plan for the conduct of that test was developed. The details of these steps are covered in Sections II - IV of this report.

## SECTION II

## FINDINGS/DISCUSSION/REQUIREMENTS DEFINITION

1. General. The following is a summary of findings and problems/requirements resulting from the survey conducted within ODCSPER. Detailed agency findings are contained in Appendices I, II and III of this volume.

2. Personnel. a. Managers and action officers are generally satisfied with the quality of administrative support within the agency. They are however dissatisfied with the number of administrative support personnel available. Eighty-five percent of the action officers and managers reported performing administrative functions such as filing, typing, copying, collating, etc. Performance of those administrative functions by professionals (managers and action officers) was reported as 2,220 hours per week as compared to 2,960 hours per week for administrative/clerical personnel. This equated to twenty-one percent of the professionals time. At division level and below, over forty percent of the typists reported supporting six or more personnel. Additionally, fifty-eight percent of action officers and managers reported actions being delayed due to insufficient typing support.

b. Lending support to the preceeding statement is the fact that costs to produce typewritten final pages differ within each directorate. For example, three of the directorates (Military Personnel, Civilian Personnel and Manpower, Plans and Budget) all produced nearly the same volume of typed pages per week during the survey period (1115, 1145 and 1159 respectively), while Human Resources with a word processing center (WPC) produced 1919 pages during the same time period. The costs are significant (MP - $6.93pp, CP - $7.04pp and MB - $7.61pp) as compared to HR AT $4.73pp. By including the pro-rated cost of the word processing equipment in HR, the cost was raised to only 4.98pp. The analogy here of course is that more was produced at a considerably lesser cost through use of modern technologies.

c. Managers and action officers reported working 1,060 hours per week in excess of the normal forty hour work week on a gratuitous basis. If this were converted to paid overtime, it would approximate $970K annually in overtime salaries. Less than fifteen percent of the managers and action officers reported having to work overtime for "what if" or contingency situations. A reduction in the amount of administrative functions they now perform should lead to a reduction in the gratuitous overtime hours

worked and provide more actual productivity time during the course of a normal 8-hour workday.

3. Procedures.

a. Document Control.

(1) Unrealistic suspenses were generally not a reported problem within the agency. When they were, the cause was normally a source outside of the agency.

(2) Only fifty-two percent of administrative personnel reported maintaining a log of incoming/outgoing actions. This coupled with the fact that no central file exists contributes to the inability to account for all documents having some research value.

b. Document Creation.

(1) The most frequent method of submission of drafts by action officers was longhand (83%). The time required to write these drafts was reported as 1,570 hours per week. This time could be reduced considerably through the use of dictation.

(2) Action officers were permitting pen and ink changes (71%), white-outs or neat erasures on final documents (95%), and were allowing administrative personnel to correct and edit their material (92%).

(3) Eighty-six percent of the administrative personnel reported having to retype papers for aesthetic, editorial or administrative reasons at least some of the time.

(4) Forty-two percent of clerical personnel reported having a typing backlog.

(5) Typing workload reported for the survey period was generally light. The average weekly number of pages produced was 6,100. Special typing requirements such as statistical work and forms varied throughout the agency down through division level.

(6) Some personnel reported not having proper equipment or having to share equipment such as typing elements and typewriters for message preparation.

c. Coordination.

(1) Some of the more common delays in the completion of a staff action were reported as the requirement for external coordination (22%), the lack of adequate administrative support (17%), excessive review levels (12%), and unrealistic suspenses (12%).

(2) The number of reviews required to process an action was three or more, seventy-three percent of the time.

d. Access/Retrieval/Storage.

(1) Action officers reported generally having access to regulations, SOPs and other policy documents.

(2) The action officer referred to his/her own (convenience) file sixty-three percent of the time.

(3) Seventy-three percent of action officers reported infrequent use of outside research sources; however, when used, the Army Library and other agency files were sources used most often.

(4) The biggest reported problem with respect to accessing files was due to improper files maintenance procedures. The time required for professionals to do filing was reported as 164 hours per week.

(5) AOs reported spending an average of 308 hours per week handcarrying actions.

4. Equipment/Technology.

a. Word Processing.

(1) There are 29 MTST/MCSTs, two Wang 20 systems and 2 central dictation units within the agency. The annual lease/ maintenance cost is $58K.

(2) Twenty-eight percent of the documents produced within the agency are produced on word processing equipment. Workload data ( Appendix III) supports the need for additional word processing equipment.

(3) Personnel are generally opposed to centralized word processing. Fifty-eight percent of administrative personnel would like the technology available at division level or lower.

(4) The addition of this equipment should reduce the typing backlog and free up administrative personnel to other administrative duties now performed by action officers.

(5) There are approximately 130 typewriters within the agency. Twenty-six percent of these have needed repair or have malfunctioned in the last six months.

b. Copiers.

(1) The agency has eight copiers with an annual lease/maintenance cost of $28K. Average weekly copies produced were 49K from 13K originals.

(2) Copier quality was generally good. Only a few copiers provide collating capability and none provide for special features such as reduction and automatic two sided copying.

(3) Agency copiers are not equally distributed causing some personnel to use the Administrative Service Centers where lines are normally long.

c. Micrographics/Files.

(1) There are eight readers and two reader/printers available within the agency. The annual maintenance cost is $2K.

(2) Although only twenty-one percent of managers and action officers use microforms, seventy-six percent consider it an acceptable form for research and backup.

(3) Files. (a) There are currently 388 safes, 170 file cabinets and 91 bookcases within the agency. The cost of the space occupied by these file containers is $10.8K for FY 80 and $17.3K for FY 81.

(b) There are approximately 2500 file drawers available. Of these, eighty-six percent are actually used for files. The amount of classified material stored is less than ten percent.

(c) Most elements use the TAFFS system; however, files are not purged or properly maintained in all cases.

(4) Increased usage of micrographics should reduce the number of file containers, thereby freeing up more space. This should also facilitate the records retrieval, maintenance and storage problems now experienced.

d. Data Processing.

(1) There are approximately 20 terminals and printers within the agency used for interface with the USAMSSA and MILPERCEN computers. There are also thirteen OPTIMIS terminals and one terminal to the ASG system.

(2) Eighteen percent of the agency personnel use computer terminals for an average of 440 hours per week.

(3) There is no single system for the control, accessing, retrieval and storage of key documents and information. The OPTIMIS and Administrative Support Group (ASG) system solve different parts of this

problem. The ASG system is an automated mailroom system.

5. Environment.

a. Sixty-one percent of agency personnel reported their work environment at least somewhat adequate. Problems are related to overcrowding, poor ventilation and poor lighting. The average square footage per person is approximately 110 sq ft. The range is from a maximum of 370 sq ft down to 50 sq ft.

b. Total cost of agency space is approximately $603K for FY 80 and $906K for FY 81.

c. On the average, personnel have their required space by regulation. The problems experienced with overcrowdinng are a direct result of the need to keep like organizational elements co-located and the inflexibility of office arrangements in the Pentagon. The excessive number of files containers also contribute to the space problem.

## SECTION III

## ALTERNATIVE SOLUTIONS/RECOMMENDED SYSTEM

1. General. The alternatives to resolving the problems outlined in Section II above are discussed in detail in Appendices IV through VII of this volume. They have been approached by the technology most appropriate to resolve these problems. The following is an outline of the solution(s) recommended:

2. Word Processing. The word processing solution will resolve the problems of document creation with respect to typing backlog, special document requirements and retyping of documents. It will provide for input to the remainder of the system. Installed systems will be considered, and technical assistance rendered to resolve difficulties and/or upgrade as neccessary (WPC in Human Resources Directorate and soon-to-be-installed system in General Officer Management Office).

a. Changes to current procedures have been proposed to management. Acceptance of these changes will enhance overall productivity and the installation of new or upgraded word processing equipment. OE personnel will be used to help overcome natural resistance to change.

b. Training on new equipment and new procedures will be conducted by vendors and study team.

c. Word processing capability will be extended down to division level. Stand-alone word processors will be installed with the option of future communications where needed.

d. Dictation capability will be installed throughout the agency, accessible by every level.

e. The cost of the total word processing/dictation portion of the test will be approximately $215K.

3. Reprographics. Reprographics solution will reduce significantly the time professionals spend on administrative functions, such as copying.

a. Procedures will be changed so that administrative personnel do the majority of the copying and collating.

b. The agency mailroom copy capability will be upgraded to provide for special features not now available.

c. Access to all agency copiers will be increased by opening up their use and through some relocation.

d. An intelligent copier/printer will be tested and evaluated, and if deemed advantageous, should reduce overall manual intervention in the copy process and the number of copiers now required within the agency.

e. Total cost for this portion of the test will be approximately $36K.

4. Micrographics. The micrographics solution complements the ADP solution and will help solve some of the files maintenance and excessive files containers problem.

a. All permanent documents created within the agency or coming in through the mailroom will be captured on microform by the ASG system.

b. All permanent documents required by the agency for future reference will be converted to microform.

c. All computer generated documents coming into the agency will be requested on microform.

d. Micrographics readers and reader/printers will be distributed on a basis of one reader per branch and one reader/printer per division.

e. If not provided with the ASG system, a storage and retrieval unit will be procured and a TAG owned camera and duplicator will be reconditioned.

f. Total cost for this portion of the test will be approximately $93K.

5. Data Processing. The data processing solution is a combination of alternatives:

a. The ASG system will be used for document tracking and control, will provide the agency central microform file, and will provide for access to and retrieval of permanent documents in the agency file. This will solve the problems of document control and storage and will establish a central file. The cost of this system will be a maximum of $123K which will be borne by OSA as their responsibility for installation of the ASG system.

b. The OPTIMIS system will be used as an inquiry system to other data bases such as agency files and other information sources. It will evolve as the central index to all research sources for the AO. This will cost $26K not chargeable to ARSTADS.

c. Electronic mailboxing will be tested using feature available through a time share system. This feature will require additional portable terminals and computer time.

d. Total ARSTADS cost for this portion of the test will be approximately $70K.

6. The personnel and environment problems should be at least partially resolved through the implementation of the solutions discussed above.

7. The total cost for the test will be approximately $404K.

## SECTION IV

## ODCSPER TEST

1. General. The test plan calls for a phased implementation by subsystem (i. e. word processing, reprographics, micrographics and data processing) by directorate throughout the agency. The normal sequence will include the development of system(s) proposal, the training of personnel in new procedures and equipment use where applicable, the installation of equipment, the test and fine tune of each subsystem, the integration of all technologies, and the evaluation of the system. All facets of the new system will be evaluated and costed and the results compared to the current system. Benefits are expected to be both tangible (i. e., reduction in cost in some areas) and intangible (i. e., increased efficiency throughout the agency). A detailed test plan has been published under separate cover.

2. Milestones. Equipment installation will begin in March 1980. All subsystems should be installed and operational by August - September 1980. The integration test will commence in October 1980 and will run for one year. During that time frame the system will undergo continuous evaluation and fine tuning changes will be made as necessary. The formal evaluation surveys will begin in July 1981. The results will be analyzed and an economic analysis will be prepared. Simultaneously, a plan for the extension of the system throughout HQDA will be developed. This plan and the test system evaluation/costs will be presented to the Steering Group in the November - December 1981 time frame.

# APPENDIX I
# TO
# VOLUME II

## QUESTIONNAIRE/INTERVIEW FINDINGS

THIS APPENDIX CONTAINS SUMMARIES OF ALL RESPONSES TO THE SURVEY QUESTIONNAIRE, INTERVIEWS, AND PERSONAL OBSERVATIONS OF THE SURVEY TEAM FOR THE ENTIRE AGENCY.

## APPENDIX I TO VOLUME II

## QUESTIONNAIRE/INTERVIEW FINDINGS

A. The following pages summarize all responses to the survey questionnaire, interviews, and personal observations of the survey team for the entire agency. To facilitate analysis, all responses have been divided into four distinct categories:

1. Personnel.
2. Procedures.
3. Equipment/Technologies.
4. Environment.

B. The annotation in parenthesis after some of the questions (e. g. Sect I, Q8) refers to the particular question on the questionnaire in Annex B of this volume. The number of responses varies with each question since not all personnel answered all questions. All findings in this Appendix are as of October 1979.

I. PERSONNEL

1. 321 Action Officers/Managers and 101 Administrative Support personnel are authorized in the directorate. 336 MGR and 120 A/S are actually assigned.

2. 164 AO/MGR positions are filled by military personnel and 157 AO/MGR positions are filled by civilians. There are 6 military admin support positions and 95 civilian admin support positions.

3. Of the total personnel in the directorate, 92 /23 % have worked in the agency less than 6 months, 123/30 % 6-18 months, 68 / 17 % 18 - 36 months and 123/30 % have worked in the directorate over 36 months. (Sect I Q4). (406 responses)

4. 14 % of AOs/MGRs reported having to work overtime for "what if" or "contingency" type situations at least usually or always.

| | | |
|---|---|---|
| ALWAYS | 4 / 1 % | (275 Responses) |
| USUALLY | 36 / 13 % | |
| SELDOM | 191 / 69 % | |
| NEVER | 44 / 17 % | (Sect I Q8) |

5. 58 % of AOs/MGRs reported actions unnecessarily delayed due to insufficient typing support at least somewhat.

| | | |
|---|---|---|
| YES | 59 / 21 % | (281 Responses) |
| SOMEWHAT | 105 / 37 % | |
| NO | 117 / 42 % | (Sect I Q14) |

6. 75 % AOs/MGRs receive satisfactory secretarial/admin support usually or always.

| | | |
|---|---|---|
| ALWAYS | 47 / 17 % | |
| USUALLY | 162 / 58 % | (281 Responses) |
| SELDOM | 67 / 24 % | |
| NEVER | 5 / 1 % | (Sect II Q10) |

(Personnel Contd

7. 88 % satisfied with general quality of typing always or usually.

| | | |
|---|---|---|
| ALWAYS | 81 / 15 % | (281 Responses) |
| USUALLY | 167 / 59 % | |
| SELDOM | 28 / 10 % | |
| NEVER | 5 / 2 % | (Sect II Q19). |

8. 82 % satisfied with general quality of editing proofreading usually or always.

| | | |
|---|---|---|
| ALWAYS | 37 / 15 % | |
| USUALLY | 166 / 67 % | |
| SELDOM | 43 / 17 % | (249 Responses) |
| NEVER | 3 / 1 % | (Sect II Q20) |

9. 70 % have backup support when absent usually or always.

| | | |
|---|---|---|
| ALWAYS | 31 / 30 % | |
| USUALLY | 41 / 40 % | |
| SELDOM | 16 / 16 % | (102 Responses) |
| NEVER | 14 / 14 % | (Sect III Q6) |

10. Type for:

| | | |
|---|---|---|
| 1 person | 19 | |
| 2-5 persons | 36 | (91 Responses) |
| 6 or more | 36 | (Sect III Q7). |

11. 72 % administrative support provided training for job at least somewhat.

| | | |
|---|---|---|
| YES | 41 | |
| SOMEWHAT | 33 | (102 Responses) |
| NO | 28 | (Sect III Q11). |

(Personnel Contd)

12. 85% of AOs/MGR perform administrative functions (filing, typing, etc.,) they feel should be done by administrative support personnel.

YES 242/ 85%
NO 43/ 15%

(285 Responses)

13. The following are comments added to the questionnaire with respect to personnel.

Comments across the entire agency with respect to personnel were focused in basically three areas:

(1) Need to improve the quality/training of administrative support personnel.

(2) Need for additional administrative support personnel.

(3) Need for a closer look at the distribution of administrative support personnel.

II. PROCEDURES

DOCUMENT CONTROL

1. Internal suspense times realistic? (393 respnded)
   ALWAYS 38 / 9 %
   USUALLY 292 / 74 %
   SELDOM 62 / 16 %
   NEVER 5 / 1 % (SECT I Q7)

2. Which office is cause of unrealistic suspenses? (359 responded)
   Agency Head 42 / 12 %
   Directorate 39 / 11 %
   Division 17 / 4 %
   Outside Agency 152 / 42 %
   Suspenses Realistic 109 / 31 % (SECT I Q12)

3. A/S maintain log of incoming/outgoing actions? (101 responded)
   YES 53 / 52 %
   NO 48 / 48 % (SECT III Q4)

4. The following describes the flow of documents into and out of the office. Number of message pickups/deliveries daily. Problems associated with the flow of documents.

Documents are picked up and delivered by mailroom personnel an average of 4 times daily. In most cases classified is delivered at the same time. Division secretaries pickup from the directorate and branches pickup from the division. There are problems occassionally with the system especially for large deliveries and with documents circulating outside of the system.

## DOCUMENT CREATION

1. Actions delayed due to insufficient typing support? (367 resp)
   YES 63 / 17 %
   SOMEWHAT 132 / 36 %
   NO 172 / 47 % (SECT I Q14)

2. Method most frequently used by AO to submit material for draft or final type. (283 Resp)
   LONGHAND 234 / 83 %
   Machine Dictation 28 / 10 %
   Typed Draft 20 / 6 %
   Stenographer 1 / 1 % (SECT II Q2)

3. Receive adequate turnaround from typing requirements? (284 resp)
   YES 142 / 50 %
   SOMEWHAT 116 / 41 %
   NO 26 / 9 % (SECT II Q3).

4. Pen & ink changes to internal HQDA correspondence permitted? (363 resp).
   By A/O
   YES 192 / 71 %
   NO 78 / 29 %

   BY A/S
   YES 60 / 64 %
   NO 33 / 36 % (SECT II Q4 & SECT III Q2)

5. Allow white-out or neat erasures on documents typed final? (284 resp).
   YES 270 / 95 %
   NO 14 / 5 % (SECT II Q11).

6. AO permits A/S personnel to correct grammar or edit material?
   AO
   YES 245 / 92 % (367 Responses)
   NO 21 / 8 %

   AS
   YES 84 / 83 %
   NO 17 / 17 % (SECT II Q13 & SECT III Q5)

7. Papers retyped for aesthetic, editorial or administrative reasons? (368 resp).

| | AO | A/S | |
|---|---|---|---|
| ALWAYS | 16 / 6 % | 51 / 50 % | YES |
| USUALLY | 59 / 21 % | 37 / 36 % | SOMETIMES |
| SELDOM | 167 / 60 | 14 / 14 % | NO |
| NEVER | 36 / 13 % | ____ / ____ % | (SECT II Q14 & SECT III Q1) |

8. AO satisfied with quality of typing? (281 resp).

| | | |
|---|---|---|
| ALWAYS | 81 / 29 % | |
| USUALLY | 167 / 59 % | |
| SELDOM | 28 / 10 % | |
| NEVER | 5 / 2 % | |
| N/A | ____ / ____ % | (SECT II Q20) |

9. Acceptable quality of editing and proofreading? (282 resp)

| | | |
|---|---|---|
| ALWAYS | 37 / 13 % | |
| USUALLY | 166 / 59 % | |
| SELDOM | 43 / 15 % | |
| NEVER | 3 / 1 % | |
| N/A | 33 / 12 % | (SECT II Q20) |

10. A/S have correspondence guide avail? (102 resp).

| | | |
|---|---|---|
| YES | 102 / 100 % | |
| NO | 0 / 0 % | |

Use it?

| | | |
|---|---|---|
| QUITE OFTEN | 73 / 72 % | |
| INFREQUENTLY | 29 / 28 % | |
| NO | 0 / 0 % | (SECT III Q8). |

11. A/S have typing backlog? (102 resp).

| | | |
|---|---|---|
| ALWAYS | 10 / 10 % | |
| USUALLY | 33 / 32 % | |
| SELDOM | 53 / 52 % | |
| NEVER | 6 / 6 % | (SECT III Q9) |

12. A/S have time for good proofreading? (102 resp).

| | | |
|---|---|---|
| ALWAYS | 12 / 12 % | |
| USUALLY | 67 / 67 % | |
| SELDOM | 20 / 20 % | |
| NEVER | 3 / 1 % | (SECT III Q10) |

13. A/S prepare draft reply to routine actions? (102 resp).

| | | |
|---|---|---|
| QUITE OFTEN | 29 / 28 % | |
| INFREQUENTLY | 40 / 39 % | |
| NO | 33 / 33 % | (SECT III Q15). |

14. Adequate time to think through and prepare action? (373 resp).

| | | |
|---|---|---|
| ALWAYS | 16 / 4 % | |
| USUALLY | 245 / 66 % | |
| SELDOM | 108 / 29 % | |
| NEVER | 4 / 1 % | (SECT I Q13) |

15. AS have backlog of typing? (102 resp)

| | | |
|---|---|---|
| ALWAYS | 10 / 10 % | |
| USUALLY | 33 / 32 % | |
| SELDOM | 53 / 52 % | |
| NEVER | 6 / 5 % | (SEC III Q9). |

16. AS has time for good proofreading (102 resp).

| | | |
|---|---|---|
| ALWAYS | 12 / 12 % | |
| USUALLY | 67 / 66 % | |
| SELDOM | 20 / 20 % | |
| NEVER | 3 / 2 % | (SEC III Q10). |

17. The following describes whether or not typing workload was typical during survey period. What kind of typing was biggest problem.

The workload reported during the survey period varied by directorate and by division from light to heavy. The majority reported the workload to be average to light. Some of the problem typing reported was: once a year OERs, travel orders, and constant retyping of Congressional memos.

18. **The following describes any problems associated with document creation such as lack of proper fonts and typewriter used in message preparation.**

Every typist did not have the proper font for message preparation; however, this could be accomplished by using the WPC, MTST or another typewriter which was suitably equipped.

## COORDINATION

1. Common delays to completion of stafff actions. ( 374 resp).

| | | |
|---|---|---|
| INTERNAL AGENCY COORDINATION | 15 | 4 % |
| LACK OF GUIDANCE | 20 | 5 % |
| EXTERNAL COORDINATION | 81 | 22 % |
| UNREALISTIC SUSPENSE | 44 | 12 % |
| LACK OF ADEQUATE SUPPORT | 69 | 17 % |
| INSUFFICIENT DELEGATION OF AUTHORITY | 7 | 2 % |
| EXCESSIVE REVIEW LEVELS | 44 | 12 % |
| OVERLY FORMAL INTERNAL PROCEDURES | 11 | 3 % |
| MISASSIGNED ACTIONS | 6 | 2 % |
| NO MAJOR OBSTACLES | 79 | 21 % |

(SECT I Q11)

2. Number of reviews required to process action. (274 resp)

| | | |
|---|---|---|
| ONE | 23 | 8 % |
| TWO | 54 | 19 % |
| THREE | 75 | 27 % |
| FOUR | 52 | 19 % |
| FIVE OR MORE | 75 | 27 % |

(SECT II Q16)

3. AO largest problem to processing of joint actions. (274 resp)

| | | |
|---|---|---|
| LACK OF GUIDANCE | 13 | 5 % |
| LACK OF KNOWLEDGE OF ARMY POSITION | 12 | 4 % |
| INSUFFICIENT RESEARCH MATERIAL | 6 | 2 % |
| MORE EMPHASIS ON FORM THAN SUBSTANCE | 28 | 10 % |
| OTHER | 13 | 5 % |
| NO SPECIAL PROBLEM | 47 | 17 % |
| N/A | 156 | 57 % |

(SECT II Q18)

4. The following describes requirements to transmit data with short fuse.

This requirement varies from 1-6 times daily throughout the agency. Media used for transmission varies from telephone, TWX, facsimile, hand carry and special messenger service.

## ACCESS/RETRIEVAL/STORAGE

1. Easy access to regulations, SOPs, and other policy documents? (382 resp)

| | | |
|---|---|---|
| YES | 221/ 58 % | |
| SOMEWHAT EASY | 122/ 32 % | |
| NO | 29/ 10 % | (SECT I Q5) |

2. Files AO most often refers to. ( 285 resp)

| | | |
|---|---|---|
| OWN DESK/FILE DRAWER | 180 /63 % | |
| OFFICE CENTRALIZED FILES | 98 /34 % | |
| FILES OUTSIDE OFFICE | 7 / 3 % | (SECT II Q5) |

3. Outside source (e.g. Army Library, OPTIMIS) used by AO for research. (281 resp)

| | | |
|---|---|---|
| QUITE OFTEN | 47 /17 % | |
| INFREQUENTLY | 206 /73 % | |
| NO | 38 /10 % | |

Sources used most frequently. (177 Resp)

| | | |
|---|---|---|
| ARMY LIBRARY | 75 /42 % | |
| OPTIMIS | 12 / 7 % | |
| OTHER AGENCY FILES | 55 /31 % | |
| OTHER SERVICE FILES | 7/ 4 % | |
| OTHER | 28 /16 % | (SECT I Q6) |

4. Microform considered acceptable form for research by AO. (242 resp)

| | | |
|---|---|---|
| YES | 110/ 45 % | |
| SOMEWHAT | 83/ 34 % | |
| NO | 49/ 21 % | (SECT II Q9) |

5. Accurate & timely information available to AO? (270 resp)

| | | |
|---|---|---|
| YES | 110/ 41 % | |
| SOMEWHAT | 124/ 46 % | |
| NO | 36/ 13 % | (SECT II Q15) |

6. A/S do research for AO? (103 resp)

| | | |
|---|---|---|
| ALWAYS | 9 / 9 % | |
| USUALLY | 33 /32 % | |
| SELDOM | 40 /39 % | |
| NEVER | 21 /20 % | (SECT III Q3) |

7. The following describes any records/file retrieving problems from questionnaire or interviews; include here frequency of access and retrieval from files.

Retrieval of or access to files varies across the agency from one to 25 times daily. Part of the problem in retrieving files is due to poor or improper files maintenance.

8. The following describes files maintenance and disposition procedures used.

The majority of the agency is following the TAFFS system; however, not all files have been properly maintained and/or disposed of. Part of this is due to files not being returned to file or not having anyone or the time to do the filing.

GENERAL

The following describes office procedures in terms of telephone answering, scheduling, calendar maintenance, supply runs, etc.

Telephone answering is done by secretaries for agency head, directors and division chiefs. Below division level, telephones are answered by whomever is available.

Scheduling and calendar maintenance are done by secretaries for their chiefs and in many cases by AOs for themselves.

Supply runs are made when needed and are made by AOs and administrative support as available.

III EQUIPMENT/TECHNOLOGIES

1. COPIERS

A. On an average per week, the directorate produced 49K copies from 12K originals.

B. The following copiers are now located within the directorate:

| TYPE MACHINE | LEASE/PURCH COST | MAINT COST | LOCATION (Room) |
|---|---|---|---|
| IBM Copier II | -- | $ 894/mo | 2C728 |
| IBM Copier II | $5,684 | -- | 2D679 |
| Xerox 3100 | -- | $3000 | 2E733 |
| Saxon | $1,370 | -- | 2E736 |
| Xerox 3600 | -- | $3970 | 2D719 |
| Xerox 2400 | -- | $3000 | 2D719 |
| Pitney Bowes | -- | $1734 | 2B739 |
| Pitney Bowes | -- | $1734 | 2B724 |

C. The following describes the need (i.e. need for collating, need for stapling, special requirements, distance to the copier) for quality of copies and capability of copiers.

The need for collating and stapling varies throughout the agency. Not all copiers have a collating capability. The distribution of copiers throughout is not equal and some divisions do not have immediate access to a copier. Satisfaction with quality varies from good to poor.

D. 84% reported that copying requirements are satisfied in at least a somewhat timely manner. (399 Resp)

YES_____/41 %
SOMEWHAT____/43%
NO_____/6% (SEC U Q10)

(Equipment & Technologies Contd)

2. FACSIMILE

A. On an average per week, the directorate transmits 49 originals using facsimile. Of the average, 100% are long distance and - % are Wash DC-Metro or local transmission. Of the total facsimile transmission reported, the average transmission time was 15 .

B. The following facsimile equipment are now located within the directorate:

| TYPE MACHINE | LEASE/PURCH COST | MAINT COST | LOCATION (Room) |
|---|---|---|---|
| Xerox 410 | -- | -- | 2D735 |
| Xerox 410 | -- | -- | 1E686 |
| DEX 700 | (USAREC owned) | -- | 2B729 |

C. The following describes the feelings of the personnel towards facsimile.

Very little use is made of facsimile by agency personnel. This is primarily due to the long transmission time required.

(Equipment & Technologies Contd)

3. WORD PROCESSING

A. The directorate is presently supported by the following WP equipment:

| TYPE MACHINE | LEASE/PURCH COST | MAINT COST | LOCATION (Room) |
|---|---|---|---|

There are 29 MTSTs located throughout the agency. (See agency summaries for exact location. HR has a Wang system in its WPC.

B. If the above equipment is TAG approved, the Word Processing approval number is:

N/A

C. 3401 total documents typed in directorate. Of that total 28 % are produced on Word Processing equipment. (WEEKLY TOTAL AND AVERAGE)

D. The following represents the feelings of the personnel towards WP.

Generally, all personnel were receptive to an upgrade to WPE; however, they would prefer this to be done in a decentralized vs centralized mode. Several felt the WPE (HR) should expand its services.

E. AS have used WPE as follows: (102 Resp)

Quite Often 44/ 43%
INfrequently 25/ 25%
NO 33/ 32% (SEC III Q12)

(Equipment/Technologies Contd)

F. AS now use WPE as follows: (98 Resp)

| | | |
|---|---|---|
| Quite Often | 29 /30 % | |
| Infrequently | 19 /19 % | |
| NO | 50 /51 % | :(SEC III Q13) |

G. AS would like to see WPE made available as follows: (93 Resp)

| | | |
|---|---|---|
| Own Desk | 29 / 35% | |
| Division Level | 19 / 23% | |
| Directorate Level | 8 / 10% | |
| WPC | 27 / 32% | (SEC III Q14) |

(Equipment & Technologies Contd)

4. MICROGRAPHICS

A. The directorate is presently supported by the following equipment:

| TYPE MACHINE | LEASE/PURCH COST | MAINT COST | LOCATION (Room) |
|---|---|---|---|
| WSI Mini Cat(5) (Readers) | $272 ea. | -- | 2B741,2B725,2A672, 2D748 |
| GAF Reader | -- | -- | 2C655 |
| Bell & Howell(3) (Reader/Printer) | $1,150 ea. | $226 ea. | 2B726,2A672,2C655 |
| OCE 3650 Reader/Printer | $1,600 | $215 | 2C688 |

B. If the above equipment is TAG approved,the MICRODIS # is:

#5081
#6059
#7033

C. The following represents the feelings of the personnel towards micrographic applications.

Although most personnel don't presently use micrographics, they are receptive towards its use.

D. 21 % of AO/MGR use microforms. (266 Resp)
YES 58/21 %
NO 218/79 % (SEC II Q7)

(Equipment & Technologies Contd)

F. 40 % of AO/MGR have used before. (280 Resp)
YES 111 / 40 %
NO 169 / 60 % (SEC II Q8)

F. 76 % of AO/MGR consider microforms as acceptable for research or backup at least somewhat. (251 Resp)
YES 109 / 43 %
SOMEWHAT 83 / 33 %
NO 59 / 24 % (SEC II Q9)

(Equipment & Technologies Contd)

5. ADP (Data Processing) TERMINALS

A. The directorate is presently supported by the following equipment:

| TYPE MACHINE | LEASE/PURCH COST | MAINT COST | LOC (Rm) | COMPUTER TIE-IN |
|---|---|---|---|---|

.T1-700 (13 located throughout for OPTIMIS)
.Inforex Terminal to ASG in mailroom
.14 Terminals (IBM, Univac, Sycor) to USAMSSA and MILPERCEN.
.COM-NCR to USAREC
.Inforex 1303 system (4 terminals)

B. The following represents the feelings of the personnel towards the use of ADP terminals.

The use of and familiarity with ADP terminals varies by directorate. Some personnel are forced users of systems. Those currently using ADP are comfortable with it.

C. 18 % of personnel use computer terminals (98 Resp)
YES 68 /18 %
NO 30 /82 % (SEC I Q17)

D. Terminal types are (51 Resp)
Portable 13 /25 %
Hard wired in office 20 /39 %
Hard wired in other office 18 /36 % (SEC I Q18)

E. Terminals used for 436 hours/week. (SEC I Q19)

(Equipment & Technologies Contd)

6. FILE CONTAINERS:

A. Number of containers and type (if motorized, give cost data).

| | |
|---|---|
| Safes | - 388 |
| File Cabinets | - 164 |
| Open Shelf Cabinets | - 6 |
| Storage Cabinets | - 13 |
| Book Cases | - 91 |

B. Cost of file space. (See Appendix A, TB 340-2, Files Equipment Planning Guide).

| FY80 | FY81 |
|---|---|
| $10,845 | $17,298 |

C. The following represents the feelings of the personnel towards the filing system/containers and any recommendations.

Although most used the TAFFS system, some did not like it. Training is required in its use to assist in disposition and maintenance of records. There are many more safes than required for classified material storage.

D. File drawers available for storage 2541. 86 % actually used. 1-30 % stores classified.

(Equipment & Technologies Contd)

7. TYPEWRITERS:

A. Typewriters use is as follows: (361 Resp)

| | | |
|---|---|---|
| Manual | 8 / 2 % | |
| Selectric | 57 / 16 % | |
| Other Electric | 64 / 18 % | |
| MTST | 21 / 6 % | |
| Mag Card | 3 / 1 % | |
| Mag Tape | 1 / 1 % | |
| Other WPE | 4 / 1 % | |
| Don't Use | 203 / 55 % | (SEC I Q20) |

B. 66 % of AS like present typewriters. (103 Resp)

| | | |
|---|---|---|
| YES | 68 / 66 % | |
| NO | 24 / 23 % | |
| Don't Have | 11 / 11 % | (SEC I Q21) |

C. Following shows need for typewriter repair or malfunction in last 6 months. (100 Resp)

| | | |
|---|---|---|
| None | 30 / 30 % | |
| 1-2 times | 30 / 30 % | |
| 3-5 | 11 / 11 % | |
| 6 or more | 15 / 15 % | |
| Don't Have One | 14 / 14 % | (SEC I Q22) |

8. Sufficient and proper office equipment available to meet daily requirements. (352 Resp)

| | |
|---|---|
| YES | 165 / 47 % |
| Somewhat | 133 / 38 % |
| NO | 54 / 15 % |

IV. ENVIRONMENT

1. 61 % reported work environment (including space, lightening, arrangement, ventiliation, etc) at least somewhat adequate. (380 Resp)

YES 109 / 29 %
SOMEWHAT 122 / 32 %
NO 149 / 39 % (Sect I Q9)

2. If "NO" to above, briefly explain.....

The majority of the problems with the working environment are related to crowded working conditions, noisy conditions and poor lighting and ventiliation.

3. Total cost of Directorate space $ 350K thru FY80. $ 550K FY81.

4. DIVISION LEVEL

A. Average square foot per person 111.
MAX 372 ft/person.
MIN 50 ft/person.

B. Telephone Service (Briefly Explain) to include requirement for special features.

Dial Pack is available down to divison level. Most elements have an intercom system. Added features could include buzzer or bell in some situations.

5. ANALYST: Write a brief paragraph from the interviews and questionnaire expressing the feelings of the personnel towards the environment in the directorate/division.

The environment varies within the agency. It gets more crowded at the division level and below. This leads to poor lighting and ventilation. The majority of personnel are at least partially dissatisfied with their working conditions.

# APPENDIX II
# TO
# VOLUME II

## PERSONNEL COSTS

THIS APPENDIX CONTAINS REPORTS REPRESENTING THE TOTAL COSTS TO ODCSPER FOR MANAGERS/ACTION OFFICERS AND ADMINISTRATIVE SUPPORT PERSONNEL TO PERFORM VARIOUS ACTIVITIES.

## APPENDIX II TO VOLUME II

## PERSONNEL COSTS

A. The following reports represent total costs to ODCSPER for the activities listed:

Typing
Dictation/Shorthand
Editing/Proofreading
Copying/Collating
Files
Answering Phones for Others
Receptionist Duties
Administrative/Clerical
Handling Mail
Travel Arrangements/Vouchers
Handcarry Papers
Errands
Longhand Writing
Research
Meetings
Other Work
Waiting for Work
Unpaid Overtime
Paid Overtime

B. The first two pages show the costs for professional (manager and action officer) time spent in performing each activity and the agency wrapup of total expenses for each activity. The second two pages reflect costs of administrative support personnel. Costs were determined by totaling the actual minutes reported by each individual on each activity during the survey period. Every person's reported time spent was calculated against his/her annual salary. The figures represented on these charts, then, are the totals of these computations.

PERSONNEL COSTS
(PROFESSIONAL/CLERICAL)

ODCSPER

| ORGANIZATIONAL ELEMENT | TYPING | DICTATION SHORTHAND | EDIT/ PROOF | COPY/ COLLATE | FILES | PHONE | RECEPTION | ADMIN/ CLERICAL | MAIL | TRAVEL ARRANGE |
|---|---|---|---|---|---|---|---|---|---|---|
| Headquarters | 5,137 | 0 | 4,724 | 4,146 | 569 | 2,652 | 424 | 6,270 | 613 | 5,969 |
| Manpower, Plans & Budget | 40,830 | 211 | 81,948 | 51,039 | 39,127 | 50,450 | 12,134 | 78,587 | 19,205 | 11,246 |
| Military Personnel Mgmt. | 7,697 | 479 | 68,219 | 43,510 | 29,387 | 31,226 | 3,125 | 35,386 | 6,795 | 7,808 |
| Civilian Personnel | 1,475 | 0 | 55,101 | 10,096 | 7,470 | 9,414 | 196 | 49,543 | 1,673 | 3,641 |
| Human Resources | 23,042 | 20,374 | 102,458 | 43,931 | 22,736 | 32,074 | 2,310 | 57,732 | 24,876 | 11,556 |
| PROFESSIONAL COST | 78,181 | 21,064 | 312,450 | 152,722 | 99,289 | 125,816 | 18,189 | 227,518 | 53,162 | 40,220 |
| CLERICAL COST | 264,318 | 3,796 | 79,158 | 98,548 | 43,690 | 112,783 | 43,502 | 158,771 | 91,312 | 20,334 |
| TOTAL | 342,499 | 24,860 | 391,608 | 251,270 | 142,979 | 238,599 | 61,691 | 386,289 | 144,474 | 60,554 |

PERSONNEL COSTS
(PROFESSIONAL/CLERICAL)

ODCSPER

| ORGANIZATIONAL ELEMENT | HAND CARRY | ERRANDS | LONG-HAND | RESEARCH | MEETING | OTHER | WAITING | UNPAID OVERTIME | PAID OVERTIME |
|---|---|---|---|---|---|---|---|---|---|
| Headquarters | 5,087 | 351 | 53,370 | 16,166 | 32,497 | 67,005 | 0 | 9,900 | 0 |
| Manpower, Plans & Budget | 67,813 | 21,228 | 259,559 | 260,223 | 286,553 | 759,578 | 8,250 | 272,660 | 547 |
| Military Personnel Mgmt. | 50,539 | 13,936 | 236,116 | 176,931 | 230,113 | 357,688 | 8,667 | 165,790 | 0 |
| Civilian Personnel | 12,188 | 6,168 | 284,996 | 153,756 | 258,265 | 746,310 | 604 | 66,800 | 0 |
| Human Resources | 50,141 | 18,218 | 223,010 | 157,910 | 295,773 | 436,517 | 14,520 | 132,000 | 0 |
| PROFESSIONAL COST | 185,767 | 59,901 | 1,057,051 | 764,986 | 1,103,201 | 2,367,098 | 32,041 | 647,150 | 547 |
| CLERICAL COST | 38,292 | 31,031 | 37,949 | 48,048 | 29,846 | 197,093 | 36,523 | 62,870 | 3,314 |
| TOTAL | 224,059 | 90,932 | 1,095,000 | 813,024 | 1,133,047 | 2,564,191 | 68,564 | 710,020 | 3,861 |

PERSONNEL COSTS
(PROFESSIONAL/CLERICAL)

ODCSPER

| ORGANIZATIONAL ELEMENT | TYPING | DICTATION SHORTHAND | EDIT/ PROOF | COPY/ COLLATE | FILES | PHONE | RECEPTION | ADMIN/ CLERICAL | MAIL | TRAVEL ARRANGE |
|---|---|---|---|---|---|---|---|---|---|---|
| Headquarters | 24,688 | 217 | 8,760 | 10,293 | 2,511 | 8,535 | 2,610 | 14,197 | 3,723 | 193 |
| Manpower, Plans & Budget | 58,192 | 0 | 14,555 | 24,839 | 6,252 | 28,992 | 14,115 | 41,761 | 30,433 | 2,680 |
| Military Personnell Mgmt. | 54,990 | 1,393 | 19,497 | 14,676 | 8,775 | 17,449 | 11,084 | 24,040 | 14,119 | 5,585 |
| Civilian Personnel | 62,478 | 536 | 11,908 | 25,849 | 12,474 | 23,837 | 7,703 | 34,735 | 23,298 | 2,090 |
| Human Resources | 63,970 | 1,650 | 24,438 | 22,891 | 13,678 | 33,970 | 7,990 | 44,038 | 19,739 | 9,786 |
| PROFESSIONAL COST | | | | | | | | | | |
| CLERICAL COST | 264,318 | 3,796 | 79,158 | 98,548 | 43,690 | 112,783 | 43,502 | 158,771 | 91,312 | 20,334 |
| TOTAL | | | | | | | | | | |

PERSONNEL COSTS
(PROFESSIONAL/CLERICAL)

| ORGANIZATIONAL ELEMENT | HAND CARRY | ERRANDS | LONG-HAND | RESEARCH | MEETING | OTHER | WAITING | UNPAID OVERTIME | PAID OVERTIME |
|---|---|---|---|---|---|---|---|---|---|
| Headquarters | 4,902 | 2,126 | 6,184 | 1,171 | 4,382 | 36,553 | 392 | 41,000 | 0 |
| Manpower, Plans & Budget | 8,649 | 6,684 | 2,511 | 18,529 | 3,565 | 44,410 | 10,049 | 15,900 | 3,314 |
| Military Personnel Mgmt. | 6,265 | 5,684 | 13,446 | 7,953 | 8,236 | 56,157 | 15,104 | 26,800 | 0 |
| Civilian Personnel | 6,172 | 8,539 | 2,630 | 3,796 | 5,459 | 21,575 | 2,975 | 1,620 | 0 |
| Human Resources | 12,304 | 7,998 | 13,178 | 16,599 | 8,204 | 38,398 | 8,003 | 14,450 | 0 |
| PROFESSIONAL COST<br>CLERICAL COST<br>TOTAL | 38,292 | 31,031 | 37,949 | 48,048 | 29,846 | 197,093 | 36,523 | 62,870 | 3,314 |

# APPENDIX III
# TO
# VOLUME II

## TYPING SURVEY RESULTS

THIS APPENDIX CONTAINS AGENCY LEVEL WRAPUPS OF ALL TYPING PERFORMED DURING THE SURVEY PERIOD. DIRECTORATE TOTALS CAN BE FOUND IN SECTIONS III - VII.

## APPENDIX III to VOLUME II

## TYPING SURVEY RESULTS

A. The following charts are an agency level wrapup of all typing performed during the survey period. Directorate totals can be found in Sections III - VII; division level totals are on file.

B. Discussion of each chart:

1. Number and Percentage of Documents Typed in an Average Week Categorized by Document Length

   Assists in the determination of whether a page oriented or document oriented system would best suit unit needs. Fulfills the requirements of AR 340-8.

2. Weekly Documents by Type

   Profiles the kinds of documents prepared in each unit, defining the need for special requirements, i.e., forms packages, statistical or math programs, etc. Fulfills the requirements of AR 340-8.

3. Weekly Pages by Type of Document

   Same as above. Provides the same data, but in different terms (documents vs. pages) to assist in determining actual volume of kinds of work.

4. Weekly Original/Revision/Repetitive Lines of Typing

   Fulfills the requirements of AR 340-8. Provides information as to the amount of revision typing vs. original performed and the use made of repetitive (boilerplate) material.

5. Weekly Special Category Documents (Pages)

   This report profiles the document flow of typed material within and outside the agency and assists in designing system interfaces.

6. The Source for Typed Material (in Lines)

   Fulfills the requirements of AR 340-8. This information provides the basis for determining present input methods and the design of alternative methods to speed document creation.

7. Average Weekly Pages of Typing by Kind of Machine.

   Depicts the types of machines used in the agency and the average productivity of each.

8. Average Weekly Lines of Typing by Kind of Machine

   Same as above. Depicts, in different terms (pages vs. lines), the use and productivity of equipment presently used.

9. Average Weekly Pages of Sensitive Documents

   Fulfills the requirements of AR 340-8. Identifies the need for special requirements in preparing classified material.

10. Average Weekly Pages by Priority

    Identifies the relative priorities of typing performed in the agency and assists in the design of an adequate system to maintain the accomplishment of priorities.

11. Destination of Typed Pages

    This information assists the analyst in determining disposition made of pages typed in the agency. Cost savings can be realized by utilizing state-of-the-art technologies if advantage is taken of microfilm, computer input, printing, etc.

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NUMBER AND PERCENTAGE OF DOCUMENTS TYPED IN AN AVERAGE WEEK CATEGORIZED BY DOCUMENT LENGTH

| ORGANIZATIONAL ELEMENT | NO. OF 1-3 PAGE DOCU | | NO. OF 4-10 PAGE DOCU | | NO. OF DOCU 10 PAGES | | TOTAL |
|---|---|---|---|---|---|---|---|
| ODCSPER | 640.0 | 98 | 12.0 | 2 | 2.0 | 0 | 654.0 |
| MANPOWER, PLANS & BUDGET | 479.0 | 90 | 42.0 | 8 | 9.0 | 2 | 530.0 |
| MILITARY PERSONNEL MANAGEMENT | 573.5 | 92 | 45.5 | 7 | 5.0 | 1 | 624.0 |
| CIVILIAN PERSONNEL | 503.0 | 89 | 55.0 | 10 | 8.0 | 1 | 566.0 |
| HUMAN RESOURCES | 931.0 | 91 | 83.0 | 8 | 13.0 | 1 | 1027.0 |
| TOTALS | 3126.5 | 92 | 237.5 | 7 | 37.0 | 1 | 3401.0 |

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WEEKLY DOCUMENTS BY TYPE

| ORGANIZATIONAL ELEMENT | LETTER OR MEMO | | SHORT RESPONSE | | REPORT OR PROJECT | | ENVELOPE | | FORM | | STATISTICS | | OTHER | | TOTAL |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| ODCSPER EXEC OFFICES | 74.0 | 11 | 16.0 | 02 | 29.0 | 04 | 7.0 | 01 | 482.0 | 74 | 3.0 | 0 | 43.0 | 07 | 654.0 |
| MANPOWER, PLANS & BUDGET | 142.0 | 27 | 40.0 | 08 | 53.0 | 10 | 11.0 | 02 | 88.0 | 17 | 47.0 | 09 | 149.0 | 28 | 530.0 |
| MILITARY PERSONNEL MANAGEMENT | 255.5 | 41 | 31.5 | 05 | 128.0 | 20 | 11.0 | 02 | 77.0 | 12 | 35.5 | 06 | 86.0 | 14 | 624.5 |
| CIVILIAN PERSONNEL | 223.0 | 39 | 52.0 | 09 | 67.0 | 12 | 32.0 | 06 | 83.0 | 15 | 11.0 | 02 | 98.0 | 17 | 566.0 |
| HUMAN RESOURCES | 323.0 | 32 | 48.0 | 05 | 135.0 | 13 | 76.0 | 07 | 148.0 | 14 | 37.0 | 04 | 260.0 | 25 | 1027.0 |
| TOTALS | 1017.5 | 30 | 187.5 | 05 | 479.0 | 14 | 137.0 | 04 | 878.0 | 26 | 133.5 | 04 | 636.0 | 19 | 3401.5 |

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WEEKLY PAGES BY TYPE OF DOCUMENT

| ORGANIZATIONAL ELEMENT | LETTER OR MEMO | | SHORT RESPONSE | | REPORT OR PROJECT | | ENVELOPE | | FORM | | STATISTICS | | OTHER | | TOTAL |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| ODCSPER EXEC OFFICES | 105.0 | 13 | 63.0 | 08 | 31.0 | 04 | 7.0 | 01 | 502.0 | 64 | 3.0 | 0 | 77.0 | 10 | 788.0 |
| MANPOWER, PLANS & BUDGET | 213.0 | 18 | 330.0 | 28 | 88.0 | 08 | 14.0 | 01 | 157.0 | 14 | 79.0 | 07 | 278.0 | 24 | 1159.0 |
| MILITARY PERSONNEL MANAGEMENT | 379.0 | 34 | 125.5 | 11 | 151.5 | 14 | 16.5 | 01 | 153.0 | 14 | 96.0 | 09 | 194.0 | 17 | 1115.5 |
| CIVILIAN PERSONNEL | 348.0 | 30 | 213.0 | 19 | 77.0 | 7 | 62.0 | 5 | 181.0 | 16 | 27.0 | 02 | 237.0 | 21 | 1145.0 |
| HUMAN RESOURCES | 661.0 | 35 | 255.0 | 13 | 187.0 | 10 | 130.0 | 07 | 182.0 | 09 | 56.0 | 03 | 448.0 | 23 | 1919.0 |
| TOTALS | 1706.0 | 28 | 986.5 | 16 | 534.5 | 9 | 229.5 | 04 | 1175.0 | 19 | 261.0 | 4 | 1234.0 | 20 | 6126.5 |

ODCSPER

WEEKLY ORIGINAL/REVISION/REPETITIVE LINES OF TYPING

| ORGANIZATIONAL ELEMENT | ORIGINAL | | MINOR EDIT | | MAJOR EDIT | | REPETITIVE | | OTHER | | TOTAL |
|---|---|---|---|---|---|---|---|---|---|---|---|
| ODCSPER EXEC OFFICES | 6819.0 | 87 | 536.0 | 7 | 0. | | 487.0 | 6 | 0. | 0 | 7842.0 |
| MANPOWER, PLANS & BUDGET | 17554.0 | 78 | 852.0 | 4 | 3266.0 | 14 | 868.0 | 4 | 0. | 0 | 22540.0 |
| MILIATARY PERSONNEL MANAGEMENT | 22804.5 | 85 | 2400.0 | 9 | 997.0 | 4 | 549.5 | 2 | 0. | 0 | 26751.0 |
| CIVILIAN PERSONNEL | 15219.0 | 71 | 2224.0 | 10 | 2475. | 12 | 1391.0 | 7 | 0. | 0 | 21309.0 |
| HUMAN RESOURCES | 22477.0 | 53 | 10327.0 | 24 | 9322.0 | 22 | 318.0 | 1 | 0. | 0 | 42444.0 |
| TOTALS | 84873.5 | 70 | 16339.0 | 14 | 16060.0 | 13 | 3613.5 | 3 | | | 120886.0 |

ODCSPER

WEEKLY SPECIAL CATEGORY DOCUMENTS (PAGES)

| ORGANIZATIONAL ELEMENT | DIVISION | | DIRECTORATE | | FIELD OPERATING AGENCY | | WITHIN DCSPER | | OUTSIDE DCSPER | | TOTAL |
|---|---|---|---|---|---|---|---|---|---|---|---|
| ODCSPER EXEC OFFICES | 8.0 | 1 | 115.0 | 15 | 8.0 | 1 | 529.0 | 67 | 128.0 | 16 | 788.0 |
| MANPOWER PLANS & BUDGET | 319.0 | 28 | 160.0 | 14 | 4.0 | 0 | 196.0 | 17 | 480.0 | 41 | 1159.0 |
| MILIATARY PERSONNEL MANAGEMENT | 224.0 | 20 | 116.5 | 10 | 9.5 | 0 | 252.5 | 23 | 513.0 | 46 | 1115.5 |
| CIVILIAN PERSONNEL | 281.0 | 25 | 103.0 | 9 | 1.0 | 0 | 248.0 | 22 | 512.0 | 45 | 1145.0 |
| HUMAN RESOURCES | 440.0 | 23 | 130.0 | 7 | 5.0 | 0 | 336.0 | 18 | 1008.0 | 53 | 1919.0 |
| TOTALS | 1272.0 | 21 | 624.5 | 10 | 27.5 | 0 | 1561.5 | 26 | 2641.0 | 43 | 6126.5 |

ODCSPER

THE SOURCE FOR TYPED MATERIAL (IN LINES)

| ORGANIZATIONAL ELEMENT | TYPED COPY | | PRINTED MATTER | | SHORT HAND | | HAND WRITTEN | | MACHINE DICTATION | | SELF GENERATED | | OTHER | | TOTAL |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| ODCSPER EXEC OFFICES | 687. | 9 | 251. | 3 | 154. | 2 | 4815. | 61 | 0. | 0 | 1910. | 24 | 25. | 0 | |
| MANPOWER PLANS & BUDGET | 7035. | 31 | 1588. | 7 | 0. | 0 | 9522. | 42 | 0. | 0 | 2347. | 10 | 2048. | 9 | 22540. |
| MILITARY PERSONNEL MANAGEMENT | 8155. | 30 | 361.5 | 1 | 129.5 | 0 | 13914. | 52 | 0. | 0 | 1612. | 6 | 2579. | 10 | 26751. |
| CIVILIAN PERSONNEL | 6549. | 31 | 457. | 2 | 114. | 1 | 11873. | 56 | 0. | 0 | 1278. | 6 | 1038. | 5 | 21309. |
| HUMAN RESOURCES | 17327. | 41 | 4872.0 | 11 | 168.0 | 0 | 11401. | 27 | 3380. | 8 | 4490. | 11 | 806. | 2 | 42444. |
| TOTALS | 39753.0 | 33 | 7529.5 | 6 | 565.5 | 0 | 51525. | 43 | 3380. | 03 | 11637 | 10 | 6496 | 5 | 120886 |

ODCSPER

AVERAGE WEEKLY PAGES OF TYPING BY KIND OF MACHINE

| ORGANIZATIONAL ELEMENT | MANUAL | | ELECTRIC | | MTST | | MCST | | WANG | | COMPUTER | | OTHER | | TOTAL |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| ODCSPER EXEC OFFICES | 0. | 0 | 788.0 | 100 | 0. | 0 | 0. | 0 | 0. | 0 | 0. | 0 | 0. | 0 | 788.0 |
| MANPOWER PLANS & BUDGET | 12. | 1 | 705.0 | 61 | 254.0 | 22 | 33. | 3 | 0. | 0 | 155.0 | 13 | 0. | 0 | 1159.0 |
| MILITARY PERSONNEL MANAGEMENT | 0. | 0 | 389.5 | 35 | 592.0 | 53 | 0. | 0 | 0. | 0 | 133.0 | 12 | 1. | 0 | 1115.5 |
| CIVILIAN PERSONNEL | 51. | 5 | 1075.0 | 94 | 17.0 | 1 | 0. | 0 | 2. | 0 | 0. | 0 | 0. | 0 | 1145.0 |
| HUMAN RESOURCES | 0. | 0 | 579.0 | 30 | 383.0 | 20 | 15. | 1 | 907. | 47 | 35.0 | 2 | 0. | 0 | 1919.0 |
| TOTALS | 63 | 1 | 3536.5 | 58 | 1246.0 | 20 | 48 | 0 | 909 | 15 | 323 | 5 | 1 | 0 | 6126.5 |

ODCSPER

AVERAGE WEEKLY LINES OF TYPING BY KIND OF MACHINE

| ORGANIZATIONAL ELEMENT | MANUAL | ELECTRIC | MTST | MCST | WANG | COMPUTER | OTHER | TOTAL |
|---|---|---|---|---|---|---|---|---|
| ODCSPER EXEC OFFICES | 0. 0 | 7842.0 100 | 0. 0 | 0. 0 | 0. 0 | 0. 0 | 0. 0 | 7842. |
| MANPOWER PLANS & BUDGET | 204. 01 | 14470.0 64 | 3252. 14 | 360. 2 | 0. 0 | 4254. 19 | 0. 0 | 22540. |
| MILITARY PERSONNEL MANAGEMENT | 0. 0 | 7859.0 29 | 15746. 59 | 0. 0 | 0. 0 | 3133.5 12 | 12.5 0 | 26751. |
| CIVILIAN PERSONNEL | 2011. 9 | 18662.0 88 | 606. 3 | 0. 0 | 30 0 | 0. 0 | 0. 0 | 21309. |
| HUMAN RESOURCES | 0. 0 | 9038.0 21 | 8240. 19 | 184. 0 | 23718. 56 | 1264. 3 | 0. 0 | 42444. |
| TOTALS | 2215. 02 | 57871.0 48 | 27844. 23 | 544. 0 | 23748. 20 | 8651.5 7 | 12.5 0 | 120886 |

ODCSPER

AVERAGE WEEKLY PAGES OF SENSITIVE DOCUMENTS

| ORGANIZATIONAL ELEMENT | NORMAL | | CONF OR SECRET | | TOP SECRET OR HIGHLY SENSITIVE | TOTAL |
|---|---|---|---|---|---|---|
| ODCSPER EXEC OFFICES | 787.0 | 100 | 1.0 | 0 | 0. | 788.0 |
| MANPOWER PLANS & BUDGET | 1102.0 | 95 | 57.0 | 5 | 0. | 1159.0 |
| MILITARY PERSONNEL MANAGEMENT | 1074.0 | 96 | 41.5 | 4 | 0. | 1115.5 |
| CIVILIAN PERSONNEL | 1144.0 | 100 | 1. | 0 | 0. | 1145.0 |
| HUMAN RESOURCES | 1878.0 | 98 | 41.0 | 2 | 0. | 1919.0 |
| TOTALS | 5985.0 | 98 | 141.5 | 02 | | 6126.5 |

ODCSPER

AVERAGE WEEKLY PAGES BY PRIORITY

| ORGANIZATIONAL ELEMENT | RUSH | | NORMAL | | LOW PRIORITY | | TOTAL |
|---|---|---|---|---|---|---|---|
| ODCSPER EXEC OFFICES | 74.0 | 9 | 712.0 | 90 | 2.0 | 0 | 788.0 |
| MANPOWER PLANS & BUDGET | 259.0 | 22 | 657.0 | 57 | 243.0 | 21 | 1159.0 |
| MILITARY PERSONNEL MANAGEMENT | 258.0 | 23 | 830.0 | 74 | 26.5 | 2 | 1115.5 |
| CIVILIAN PERSONNEL | 342.0 | 30 | 753.0 | 66 | 50.0 | 4 | 1145.0 |
| HUMAN RESOURCES | 671.0 | 35 | 1230.0 | 64 | 18.0 | 0 | 1919.0 |
| TOTALS | 1604. | 26 | 4182. | 68 | 339.5 | 6 | 6126.5 |

ODCSPER

DESTINATION OF TYPED PAGES

| ORGANIZATIONAL ELEMENT | FILE ONLY | | POSTAL SERVICE | | INTERNAL MAIL | | MICRO-FILM | | OCR COMPUTER | | COMMUNI-CATIONS | | COPIER | | PRINTING | | OTHER | | TOTAL |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| ODCSPER EXEC OFFICE | 122.0 | 15 | 447.0 | 57 | 20.0 | 3 | 191.0 | 24 | 0. | 0 | 0. | 0 | 0. | 0 | 7.0 | 01 | 1. | 0 | 788.0 |
| MANPOWER PLANS & BUDGET | 602.0 | 52 | 44.0 | 04 | 58.0 | 5 | 111.0 | 10 | 0. | 0 | 108.0 | 09 | 33.0 | 3 | | 02 | 182 | 16 | 1159.0 |
| MILITARY PERSONNEL MANAGEMENT | 431.0 | 39 | 89.0 | 8 | 126.0 | 11 | 333.0 | 30 | 2.5<br>2.5 | 0<br>0 | 108.0 | 10 | 6.0 | 1 | 8.0 | 01 | 9.5 | 01 | 1115.5 |
| CIVILIAN PERSONNEL | 346.0 | 30 | 66.0 | 6 | 218.0 | 19 | 256.0 | 22 | 0<br>10. | 1 | 1.0 | 0 | 44.0 | 4 | 150.0 | 13 | 54.0 | 05 | 1145.0 |
| HUMAN RESOURCES | 547.0 | 29 | 70.0 | 4 | 548.0 | 29 | 499.0 | 26 | 0<br>4. | 0<br>0 | 35.0 | 2 | 31.0 | 2 | 122.0 | 6 | 63.0 | 3 | 1919.0 |
| TOTALS | 2048.0 | 33 | 716 | 12 | 970. | 16 | 1390. | 23 | 2.5<br>16.5 | 0 | 252.0 | 4 | 114. | 2 | 308. | 5 | 309.5 | 5 | 6126.5 |

# APPENDIX IV

TO

VOLUME II

## WORD PROCESSING

## PROBLEMS/ANALYSIS/ALTERNATIVES

THIS APPENDIX CONTAINS A DISCUSSION OF PROBLEMS TO THE WORD PROCESSING SUBSYSTEM, ALTERNATIVE SOLUTIONS TO THOSE PROBLEMS, THE RECOMMENDED SOLUTION AND ASSOCIATED COSTS OF IMPLEMENTATION AND TEST.

Appendix IV

## Word Processing Problems/Discussion/Alternatives

1. PROBLEM:

Only 43% of the agency's total typing workload actually leaves the agency. The remainder, 57%, stays within ODCSPER.

DISCUSSION:

Since this percentage relates only to typed workload, a closer look needs to be taken to investigate the kinds of typing that stay within the agency. It is possible that much of this material could be reduced and alternate methods employed for in-house information exchange, thus saving cost to the agency in the labor intensive activity of producing typed documents.

ALTERNATIVES:

a. Make greater utilization of immediately available methods of information exchange -- telephone and handwritten notes.

(1) Advantages.

(a) Reduces time required to draft, type, proof, mail and file documents; speeds information flow.

(b) Reduces costs associated with drafting, typing, proofing, mailing and filing these documents.

(c) Maintains the "personal" aspect of information exchange.

(2) Disadvantages.

(a) May have limited telephone lines available.

(b) Illegible handwriting.

(c) Not feasible to delegate in some instances.

b. Develop automated alternatives to making telephone calls, writing notes and typing memos.

(1) Advantages.

(a) Automated systems transcend time and distance barriers associated with routine office functions.

(b) Automated versions of phone calls, notes and memos can be generated without the receiving party being contacted directly.

(c) The receiver of a phone call, note or memo can accept and "read" it at a time of his/her choosing.

(2) Disadvantages.

(a) Reluctance to accept new methods.

2. PROBLEM:

An average of 21% of the total agency's typing workload remains within the division where it originated. Divisions which show a percentage of documents remaining within their organization which is the same or greater than the agency average are:

| Organization | Percentage |
|---|---|
| MB-All & Doc | 44 |
| MB-Man, Mgmt & Anal | 36 |
| MB-Util & Std | 42 |
| MP-Off Div | 24 |
| MP-Rec & Reen | 24 |
| CP-Prog & Reg | 24 |
| CP-Pos & Pay Mgmt | 23 |
| CP-Tng & Dev | 23 |
| CP-CSRA | 55 |
| HR-EO | 29 |
| HR-Law Enf | 44 |
| HR-Leadership | 27 |
| HR-Al & Drug | 22 |

DISCUSSION:

This percentage relates only to typed workload. Eliminating the need to prepare formal typed material for dissemination within one's own unit could realize a great savings to the agency in machine, material and personnel costs. One of the most costly administrative activities is the generation of a typed page.

ALTERNATIVES:

a. Eliminate typing memorandums for record, transmittal slips, telephone messages, notes, and other documents that serve only to inform or request specific action to be taken. Rely on handwritten material or verbal communications when feasible.

(1) Advantages. (see paragraph 1a).

(2) Disadvantages. (see paragraph 1a).

b. Provide state-of-the-art text editing capability at the division level.

(1) Advantages.

(a) Enhances the capabilities of administrative support personnel.

(b) Satisfies individual office needs.

(2) Disadvantages.

(a) May not be cost effective at division level.

3. PROBLEM:

Of the seven possible categories of "source for typed material," inputting by longhand was by far the most common method. Typing survey results indicated that almost half, or 43%, of the lines typed in the agency were prepared from longhand copy. Questionnaire results showed that 56% of the action officers use longhand as their primary method of drafting.

DISCUSSION:

While "writing it out" in longhand is a slow and tedious process, consuming action officer time, paper and pencil, it is, unfortunately, the only method available to many action officers in drafting material. Vendors of dictation equipment aver that use of dictation equipment is five times faster than longhand. Army supports a time saving, but more in the realm of three times faster for an action officer. Even at three times as fast, use of dictation is definitely a time saver, allowing the action officer to use the system at times which best suit his/her needs with a method of quickly capturing his thoughts without the chore of writing it out. If drafted on a text editor, dictation gives the action officer an opportunity to review the draft in a form more like that of an original and make moderate changes without unduly taxing the typist. The time spent dictating drafts shifts from an action officer time intensive situation to lower paid clerical support personnel.

ALTERNATIVES:

a. Extend dictation capability to the lowest possible level.

(1) Advantages.

(a) Reduce action officer time in preparing draft material.

(2) Disadvantages.

(a) Acceptance and use.

(b) Places additional requirement on clerical support personnel.

b. Give each action officer a typewriter on which to prepare all drafts. Typing, while not as fast as dictation, is still much less time consuming than writing it out in longhand.

(1) Advantages.

(a) Reduce action officer time in preparing drafts.

(b) Can serve as an input station to an optical character recognition (OCR) system, thus eliminating the need for a secretary to retype the document.

(2) Disadvantages.

(a) Acceptance and use.

(b) Only a few action officers type.

4. PROBLEM:

Of the total lines of typing done in the agency, 39% were prepared from previously typed or printed material.

DISCUSSION:

While the percentages of "original" typing in the agency were high, the fact that 39% of those documents were typed from previously typed or printed material greatly distorts the true meaning of "original." Also, the true picture of any "edited" (retyped) material was distorted as well. The high percentage of material typed from typed copy is indicative of material being retyped after editing at a level higher than the originating office. This duplication in keyboarding is an obvious waste of time.

ALTERNATIVES:

a. Return all documents that need retyping to the originating office.

(1) Advantages.

(a) Provides for more accurate data collecting.

(b) Serves as a learning aid to those who drafted the material, thus reducing the chance of the same error occuring again.

(c) Relieves workload of typists at level where revision was made.

(2) Disadvantages.

(a) Slows document turnaround time.

(b) Increases workload on typists in originating offices.

b. Clear all material in draft form to as high a level as possible.

(1) Advantages.

(a) Eliminates redrafting tremendously.

(b) Allows reviewers to edit easier.

(2) Disadvantages.

Encourages changes that might not be made to a final copy.

c. Install text editing compatible equipment at all levels.

(1) Advantages (see paragraph 2b).

(2) Disadvantages (see paragraph 2b).

d. Utilize optical character recognition (OCR) drafts to allow for capture of typed material automatically onto magnetic media.

(1) Advantages.

(a) Eliminates need for second or more typings of material.

(b) Can be extremely cost effective.

(c) Requires a minimum of training for personnel.

(2) Disadvantages.

Directorate level is lowest level for centralization and cost effectiveness.

e. When the typed copy is a computer printout that was retyped to produce a final copy, develop a communications link between the computer and sohpisticated text editing equipment.

(1) Advantages.

(a) Eliminates rekeying document to produce final copy.

(b) Records computer results at office site, allowing for further use off line.

(c) Text editing equipment can be used in place of existing terminal for query and data base update.

(d) Queries and data base updates can be entered off-line, proofed, and dumped to computer faster than with on-line entry system.

(2) Disadvantages.

May require software to support either at text editing or data processing end.

5. PROBLEM:

Statistical typing (columns and numbers) represents 4% of the agency's typing workload, or 261 pages of statistical work per week.

The highest percentages of statistical typing were prepared in:

| Organization | Pages | Percentage |
|---|---|---|
| HR- EO | 15 | 12 |
| CP-Tng & Dev | 21 | 24 |
| MP-Enl Div | 66 | 16 |
| MB-All & Doc | 30 | 12 |
| MB-Mil Str | 33 | 14 |

No state-of-the-art equipment is available to these units to facilitate typing of statistical material.

DISCUSSION:

Measuring, counting, laying out, and actually typing statistical documents is the most troublesome job a typist has to do. Proofing such a document usually requires the services of two persons--one reading, the other proofing. Of all the typing categories, more errors are made in statistical typing than in any other. The typist is not the only person affected by the production of statistical information. An action officer spends much time in adding, both horizontally and vertically, and cross-footing statistical information.

ALTERNATIVES:

a. Provide the capability of automatic statistical layout on a state-of-the-art text editor.

(1) Advantages.

(a) Produces well-aligned charts and statistical lists with little effort on the part of the typist.

(b) Provides ability to edit material, change column sequence and reprint with little effort.

(2) Disadvantages.

May not be cost effective at lower levels.

b. Provide mathematical capability on a state-of-the-art text editor.

(1) Advantages.

(a) Provides ability to automatically add horizontal lines, vertical lines, and crossfoot totals.

(b) Serves as a proofing mechanism for statistical work.

(c) Could substitute for action officer having to add columns on a calculator.

(2) Disadvantages.

(a) Capability is usually an option and may add cost to the text editor.

(b) May not be cost effective at lower levels.

6. PROBLEM:

Twenty-six (26)% of the documents typed in the agency are forms. A majority of them are prepared in Management Support Office. However, every directorate has a sizeable quantity per week:

| Dir. | Pages | Workload |
|---|---|---|
| MP | 88 | 17% |
| MP | 77 | 12% |
| CP | 83 | 15% |
| HR | 148 | 14% |

The following organizations had the highest percentages of form preparation:

| Organization | Pages | Percentage |
|---|---|---|
| MB-All & Doc | 68 | 27 |
| MB-Util & Std | 14 | 35 |
| MP-Dir | 38 | 38 |
| CP-Prog & Reg | 82 | 26 |
| CP-Pos & Pay | 45 | 18 |

| | | |
|---|---|---|
| HR-Law Enf | 41 | 20 |
| HR-Comp & Ent | 75 | 26 |
| HR-Org Eff | 14 | 24 |
| HR-Al & Drug | 13 | 41 |
| ZX-MSO | 496 | 72 |

There is no current state-of-the-art equipment available to the agency to handle forms preparation efficiently.

DISCUSSION:

Preparing forms on manual or electric typewriters, or on unsophisticated text editors is a very time consuming task. The time required to setup one form for typing is far greater than actually keying the three to four lines of typing. The primary reason is that typists must take the time to "fit the information in the right block," being extremely careful to properly align the line of type both horizontally and vertically as each entry is made.

ALTERNATIVES:

a. Discontinue use of unnecessary forms where possible.

(1) Advantages:

(a) Reduces costs of forms design, reproduction, and distribution.

(b) Standardizes forms elements.

(c) Reduces forms storage area.

(d) Reduces training needed by all personnel.

(2) Disadvantages.

Does not allow for individualization of forms.

b. Provide capability to prepare forms on state-of-the-art text editing equipment.

(1) Advantages.

(a) Stores formats for future use, greatly decreasing typist time in spacing, tabbing and positioning elements into preprinted blocks.

(b) Reduces training required of a typist as to which data elements are required and where they should be placed on the form.

(c) Allows for storage of standard information that appears on many forms and eliminates typist need to retype for every application.

(2) Disadvantages.

(a) More sophisticated applications may add cost to text editing equipment.

(b) May not be cost effective at lower levels.

7. PROBLEM:

The average lines of repetitive material (canned or boilerplate) for the agency was reported at 3% of the workload or 3613 lines in an average week. Each directorate reported some repetitive work--from 1% to 7% of their total workloads. More applications for possible boilerplate were uncovered during interviews.

DISCUSSION:

Whenever material can be boilerplated, be it an entire letter, a paragraph, or a simple signature block, much time and associated costs can be reduced. Action officers do not have to dictate or write out boilerplate material; secretaries do not have to type this material; and, no one has to proof it. Typing of funds cites on 477 individual forms (as was done by MSO during the survey) can become the simplest of tasks with state-of-the-art equipment.

Formats, too, can be boilerplated. That is, the vertical and horizontal spacing, tabs and fields of data entry can be stored for each form used. Margins, tabs and spacing can be stored for each type of letter, DF, message, decision paper, etc., that has to be typed. This feature, available on the majority of state-of-the-art text editors, saves time for the typist, and greatly facilitates training on different document formats.

ALTERNATIVES:

a. Standardize formats and forms wherever possible.

(1) Advantages (see paragraph 6a).

(2) Disadvantages (see paragraph 6a).

b. Provide the capability to store boilerplate material and standard formats.

(1) Advantages.

(a) See paragraph 6a.

(b) Reduces time for proofing and editing.

(c) Eliminates need for action officers to write out standard paragraphs, letters, and frequently used phrases.

(d) Available on all state-of-the-art text editors.

(2) Disadvantages (none identified).

8. PROBLEM:

A small percentage of the agency's typed documents (2%) are classified Confidential or Secret. Classified typing is currently being performed in MB, MP and HR directorates.

DISCUSSION:

In a defense oriented office, classified material will most likely be typed on occasion.

ALTERNATIVES:

a. Assure that any typing of classified material on electric/mechanical or electronic devices meets the requirements of AR 380-380.

(1) Advantages.

Provides capability to process classified documents in accordance with regulation.

(2) Disadvantages.

May add cost to equipment and minimal time delays to clear Tempest requirements.

9. PROBLEM:

Twenty-eight (28) pages of material are typed and addressed to FOA's in an average week. Twenty-eight (28) pages of copy are transmitted to FOA's via telecopier in an average week. Fifty-eight (58) pages of copy are received from FOA's via telecopier in an average week. Incoming traffic on the telecopiers was addressed to seven different elements in ODCSPER. Five separate units transmitted copy to four different FOA's.

Transmission time on one telecopier averaged 3.6 minutes per page; transmission time on the other averaged 8.3 minutes per page. One additional telecopier had no traffic during the survey period.

DISCUSSION:

Sufficient traffic exists on present telecopiers to establish a need to interface as expeditiously as possible with FOA's. Interface by telephone cannot be quantified through survey data, but is known to exist. The 28 pages typed may or may not be the same 28 pages sent on telecopiers. Using telecopiers

can be a time-consuming and awkward process. An action officer or secretary must deliver the document to a telecopier which could be in a remote location from the work area. The assistance of another person at the telecopier site is often required before transmitting the document and it is usually necessary to wait for the document to be sent. Documents received must be carried to the addressee, which again is a time delay. If the information received via telecopier is needed as input to another document being prepared, retyping of the required text is necessary.

ALTERNATIVES:

a. Provide communications capability down to division level.

(1) Advantages:

(a) Eliminates need to travel to a telecopier, wait for transmission, or deliver an incoming document to the recipient.

(b) Communications speeds can be as much as thirty times faster than present facsimile speeds.

(c) Provides for incoming document to be recorded at receiving site for future use (edit, reissue, or include in another document).

(d) Communications ability to any location, provides immediate access to any device capable of receiving compatible protocols.

(e) Uses standard voice grade telephone lines.

(f) Some text editors can handle communications in an unattended mode (background).

(2) Disadvantages:

(a) Adds cost to the text editor.

(b) Requires a separately procured communications modem to allow use of existing telephone.

(c) A majority of current state-of-the-art text editor systems require attendance at both sending and receiving points during communications.

b. Provide access to an electronic mail system.

(1) Advantages:

(a) See paragraph 9a.

(b) Does not require that recipient be present to receive document.

(c) Recipient receives document at a time of his/her choosing.

(2) Disadvantages:

(a) Costly.

(b) May not be cost effective at lower than headquarters level.

10. PROBLEM:

On the average, 26% of the agency's workload is handled as rush priority. Sixty-eight (68)% is normal priority and 6% is low priority. Every organization surveyed (down to division level) indicated a workload with more than the agency's average of rush priority work. Those units which had a LOWER percentage are:

| Organization | Percentage |
|---|---|
| MB-Prog & Bud | 4 |
| MB-Mil Str | 6 |
| MP-Off Div | 15 |
| CP-Labor & Emp | 25 |
| CP-CSRA | 7 |
| HR-Dir | 10 |
| HR-EO | 6 |
| HR-Law Enf | 17 |
| HR-Comp & MEnt | 10 |
| HR-Safety | 12 |
| ZX-MSO | 8 |
| ZX-XO | 3 |

DISCUSSION:

Rush work is a natural part of any office's overall workload. However, excessive amounts of rush work adversely affect the conduct of normal and low priority work. The agency's average for rush work appears to be quite high even though no specific percentage has ever been defined as an acceptable norm. Rush work, in itself, is detrimental to the orderly completion of other work in the office. Rush situations are self-perpetuating, making a backlog of normal and low priority work which, because of delays, must be redefined as rush priority.

ALTERNATIVES:

a. Assure that internally assigned suspense dates are realistic.

(1) Advantages.

Assists action officer in determining true priority of projects assigned.

(2) Disadvantages.

All documents that need to be tracked may not be assigned a suspense date.

b. Deliver the suspensed document to the action officer as efficiently as possible.

(1) Advantages.

Gives the action officer more time to work on the document.

(2) Disadvantages.

May bypass the chain of command on the way "to" the action officer.

c. When a suspensed document is received by the action officer, review it immediately.

(1) Advantages:

(a) Backup material and copies that are required can be determined early on, and not interfere with final completion of the project.

(b) Encourages action officers to systematically review in-box.

(c) Establishes a work priority for the individual action officer.

(2) Disadvantages:

Many actions may be in various stages of completion at any one time.

## ALTERNATIVES SATISFIED BY PROPOSED SYSTEMS

The following matrix displays which proposed systems satisfy the alternatives presented, assuming that all alternatives are viable.

Note that some alternative solutions are procedure oriented rather than technology oriented. These have been placed in a column headed "Procedures" since any proposed system will be enhanced by streamlining or standardization wherever possible.

Changes in internal procedures cannot be accomplished through the application of technological advancements. Much depends on management decision that a new procedure should and will be implemented.

## ALTERNATIVES SATISFIED BY PROPOSED SYSTEMS

| | | Proposed Systems | | | | | |
|---|---|---|---|---|---|---|---|
| ALT | Procedures | All Dictation Systems | Cent. Distr. Mini | Cent. OCR | Cluster OCR | Mod. Decent. Stand-Alone | Decent. Stand-Alone |
| 1a | ● | | | | | | |
| 1b | | | ◖ | | | ⊕ | ⊕ |
| 2a | ● | | | | | | |
| 2b | | | ● | | | ● | ● |
| 3a | | ● | | | | | |
| 3b | | | | ● | ● | | |
| 4a | ● | | | | | | |
| 4b | ● | | | | | | |
| 4c | | | ● | | | | ● |
| 4d | | | | ● | ● | | |
| 4e | | | ● | | | ⊕ | ⊕ |
| 5a | | | ● | ○ | ○ | ● | ● |
| 5b | | | ● | ○ | ○ | ● | ● |
| 6a | ● | | | | | | |
| 6b | | | ● | ○ | ○ | ● | ● |
| 7a | ● | | | | | | |
| 7b | | | ● | ● | ● | ● | ● |
| 8a | | | ● | ● | ● | ● | ● |
| 9a | | | ● | | | ⊕ | ⊕ |
| 9b | | | ◖ | | | ⊕ | ⊕ |
| 10a | ◖ | | | | | | |
| 10b | ● | | | | | | |
| 10c | ● | | | | | | |
| Total | 9 | 1 | 11 | 7 | 7 | 10 | 11 |

● Yes ◖ Partially ○ Available thru system ⊕ Yes, as an option

PROPOSED SYSTEMS COST COMPARISONS

| | Purchase Cost (in thousands) | Lease Cost |
|---|---|---|
| Dictation Systems | | |
| Centralized | $39-$42 | $16-$17 |
| Clustered | $43-$48 | $20-$23 |
| Decentralized | $27-$35 | $12-$15 |
| Text Editing Systems | | |
| Centralized/Distributed | $407-$429 | $249-$264 |
| Centralized OCR | $111-$172 | $119-$125 |
| Clustered OCR | $300-$492 | $143-$258 |
| Decentralized Stand-Alone | $335-$445 | $198-$221 |
| Modified Decen. Stand-Alone | $311-$393 | $167-$200 |

## RECOMMENDED DICTATION AND TEXT EDITING SYSTEM

### Constraints

Any recommended system for the agency will have to fall within the following constraints, since this is a test system.

1. Minimal cost outlay.
2. Must meet a majority of alternative solutions.
3. Cannot require alterations to physical plant.
4. Cannot pose a requirement for additional personnel.

### Recommended System

A decentralized dictation system and a modified decentralized stand-alone text editing system meet all of the constraints above.

### Cost

Purchase $338K to $428K  Lease $179K to $215K per yr.

## DISCUSSION OF INDIVIDUAL PROPOSED SYSTEMS

Following is a discussion of each dictation and text editing system proposed.

The first sheet contains a narrative of each system, its advantages and its disadvantages. The second sheet displays equipment configurations of each system, and the third sheet itemizes proposed systems cost.

## CENTRALIZED DICTATION SYSTEM

### System Design

The entire agency would have access to one central dictation system through presently installed telephones. A CRT-based "systems manager" is included to assist the unit supervisor in generating productivity and use reports for management of the system. Four desktop recorders are available as "loaners" for lengthy dictation and one desktop transcriber is attached to the system for transcription of such dictation.

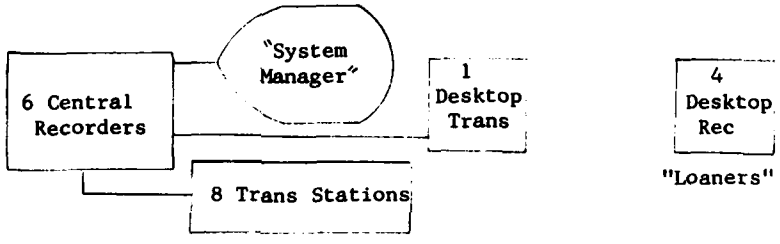
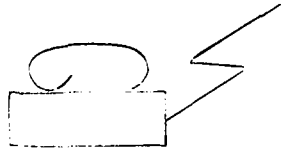
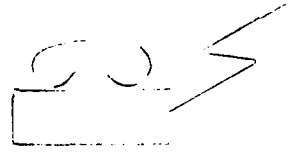
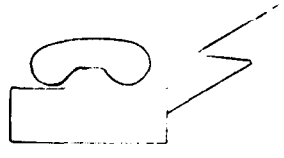
### Advantages

1. Requires no additional equipment on action officer's desk.
2. Can access system from outside the building on any telephone.
3. FOA's and action officers on TDY can access system at any time.
4. Dictation is recorded at site of transcription (no requirement to carry cassette to transcriptionist).

### Disadvantages

1. For best productivity, a central system should be located in a traditional "word processing center."
2. If system is inoperable, no one in the agency can dictate.
3. Must install six additional telephone lines into central recorders.

CENTRALIZED DICTATION SYSTEM

| | |
|---|---|
| AGENCY |  |
| DIRECTORATE |  |
| DIVISION |  |
| ACTION OFFICER |  |

CENTRALIZED DICTATION SYSTEM

| | | System Cost | |
|---|---|---|---|
| | | Purchase | Lease |
| | | $39,820-$42,000 | $16,744-$17,000 |
| AGENCY | Central system<br>6 recorders, 8 trans stations,<br>system manager, 1 desktop transcriber<br>4 desktop recorders as "loaners" | 39,820-42,000 | 16,744-17,000 |
| DIRECTORATE | | | |
| DIVISION | | | |
| ACTION OFFICER | | | |

## CLUSTERED DICTATION SYSTEM

### System Design

A small central recording system is located within each directorate for directorate use. Access is gained through existing telephones. A non-CRT "system manager" is included to assist in generating productivity and use reports for management of the system. One desk top recorder unit is available to "loan" for lengthy dictation, and one transcriber is attached to the clustered system to facilitate transcription of any dictation submitted on cassette.

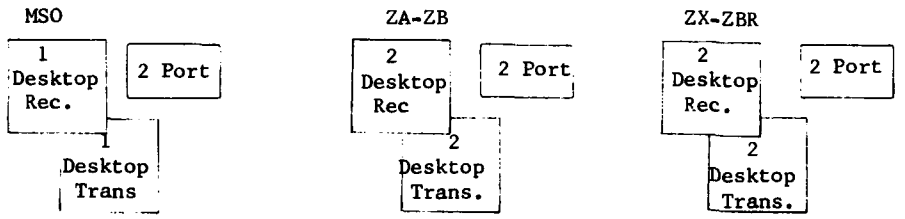
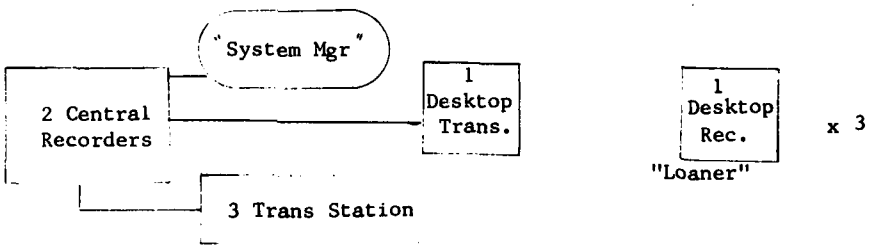
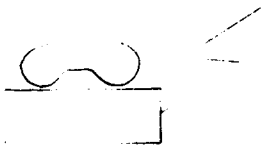
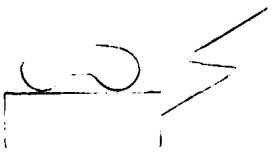
### Advantages

1. Requires no additional equipment on action officer's desk.
2. Can access system from outside the building on any telephone.
3. FOA's and action officers on TDY can access system at any time.
4. Dictation is recorded at site of transcription service (no requirement to carry cassette to transcriptionist).

### Disadvantages

1. System should be located in a small "word processing center" for best productivity.
2. Must install 2 additional telephone lines per directorate into each recorder.
3. If system is inoperable, no one in the directorate can dictate through central recording system.

CLUSTERED DICTATION SYSTEM

| | |
|---|---|
| AGENCY |  |
| DIRECTORATE |  |
| DIVISION |  |
| ACTION OFFICER |  |

CLUSTERED DICTATION SYSTEM

| | | System Cost | |
|---|---|---|---|
| | | Purchase | Lease |
| | | $43,360-$47,800 | $20,460-$22,752 |
| AGENCY | 5 desktop recorders | 2,000-2,500 | 900-1080 |
| | 5 desktop transcribers | 2,000-2,500 | 900-1080 |
| | 6 portable recorders | 1,500-1,800 | 660-792 |
| DIRECTORATE | 6 Central recorders<br>9 transcription station<br>3 system's managers<br>3 desktop transcribers<br>3 "loaner" desktop recorders<br><br>(2 central recorders, 3 trans stations, 1 sys mgr, 1 desktop trans, and 1 loaner per directorate - None for HR) | 37,860-42,000 | 18,000-19,800 |
| DIVISION | | | |
| ACTION OFFICER | | | |

## DECENTRALIZED DICTATION SYSTEM

### System Design

Provides a desktop recorder and transcriber and one portable unit in each division, each executive office, and in each director's office.

### Advantages

1. Allows division secretary to transcribe dictation.
2. Does not tie up telephone lines; no additional lines needed.
3. Less costly.

### Disadvantages

1. Possible inventory control problems.
2. Cannot access from outside building.
3. Must carry cassettes to transcriptionist.
4. Extra equipment on action officer's desk.

DECENTRALIZED DICTATION SYSTEM

| | |
|---|---|
| AGENCY | MSO: 2 Desktop Rec. — 2 Desktop Trans; 1 Port<br>ZA-ZB: 1 Desktop Rec — 1 Desktop Trans; 1 Port<br>ZX-ZBR: 1 Desktop Rec — 1 Desktop Trans; 1 Port |
| DIRECTORATE | 1 Desktop Rec — 1 Desktop Trans x 4 |
| DIVISION | 1 Desktop Rec — 1 Desktop Trans; 1 Port x 19 |
| ACTION OFFICER | |

DECENTRALIZED DICTATION SYSTEM

| | | System Cost | |
|---|---|---|---|
| | | Purchase | Lease |
| | | $27,674-$34,291 | $12,108-$14,760 |
| AGENCY | 5 desktop recorders | 2,000-2,500 | 900-1,080 |
| | 5 desktop transcribers | 2,000-2,500 | 900-1,080 |
| | 6 portable recorders | 1,500-1,800 | 660-792 |
| DIRECTORATE | 8 desktop recorders | 3,200-4,000 | 1,392-1,740 |
| | 8 desktop transcribers | 3,200-4,000 | 1,392-1,740 |
| | 4 portable recorders | 1,000-1,200 | 432-528 |
| | (2 desktop rec & trans and 1 portable per dir. office) | | |
| DIVISION | 14 desktop recorders | 5,628-7,035 | 2,452-2,975 |
| | 14 desktop transcribers | 5,628-7,035 | 2,452-2,975 |
| | 14 portable recorders | 3,518-4,221 | 1,528-1,850 |
| | (1 ea per division) MB-MP-CP | | |
| ACTION OFFICER | | | |

## CENTRALIZED OPTICAL CHARACTER RECOGNITION (OCR) SYSTEM

### System Design

The system is designed around the concept of an agency level word processing center. Documents typed throughout the agency are fed into an optical character recognition (OCR) reader, scanned, and digitized for acceptance by a mini-based text editor. Any special requirements such as, forms, statistical typing and math software are handled on the mini. The center prepares the final copy for signature.

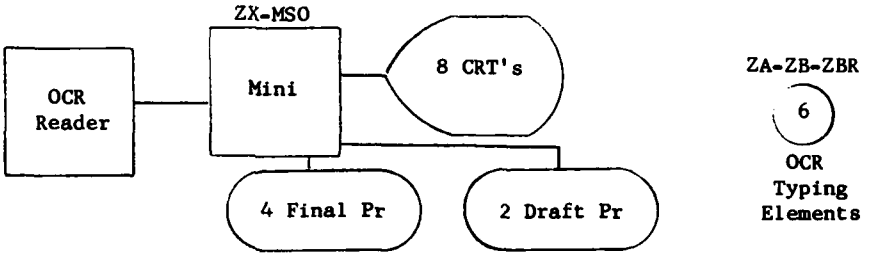
### Advantages

1. Provides that existing equipment can become an input station to the mini through the addition of a typing element.
2. Makes efficient use of existing equipment base.
3. Very cost effective.

### Disadvantages

1. If the mini is inoperable, final typing must be performed on existing equipment.
2. Does not provide text editing capability at immediate division or directorate level.
3. Requires space and personnel to establish an agency level word processing center.

CENTRALIZED OPTICAL CHARACTER RECOGNITION (OCR)
SYSTEM

| | |
|---|---|
| AGENCY |  |
| DIRECTORATE | 8 OCR Typing Elements |
| DIVISION | 45 OCR Typing Elements |
| ACTION OFFICER | 20 OCR Typing Elements |

CENTRALIZED OPTICAL CHARACTER RECOGNITION (OCR) SYSTEM

| | | System Cost | |
|---|---|---|---|
| | | Purchase | Lease |
| | | $111,126 to 171,126 | $119,126 to 124,126 |
| AGENCY | OCR Reader | 15 - 30,000 | 9 - 15,000 |
| | Mini, 8 CRT's, 6 printers | 95 - 140,000 | 50 - 108,000 |
| | OCR Elements | 84.00 | 84.00 |
| DIRECTORATE | OCR Elements 8 ea | 112.00 | 112.00 |
| DIVISION | OCR Elements 45 ea | 650.00 | 650.00 |
| ACTION OFFICER | OCR Elements 20 ea | 280.00 | 280.00 |

## CENTRALIZED/DISTRIBUTED MINI-BASED SYSTEM

### System Design

The centralized/distributed system provides the use of networks to allow sharing resources from a host mini processor to various locations. One large data base for storage and retrieval in addition to dual floppy disk capability at each of the 24 work stations is available. All work stations operate independently of the mini-processor if necessary. The mini might possibly be located in the agency mailroom, thus requiring minimal modification.

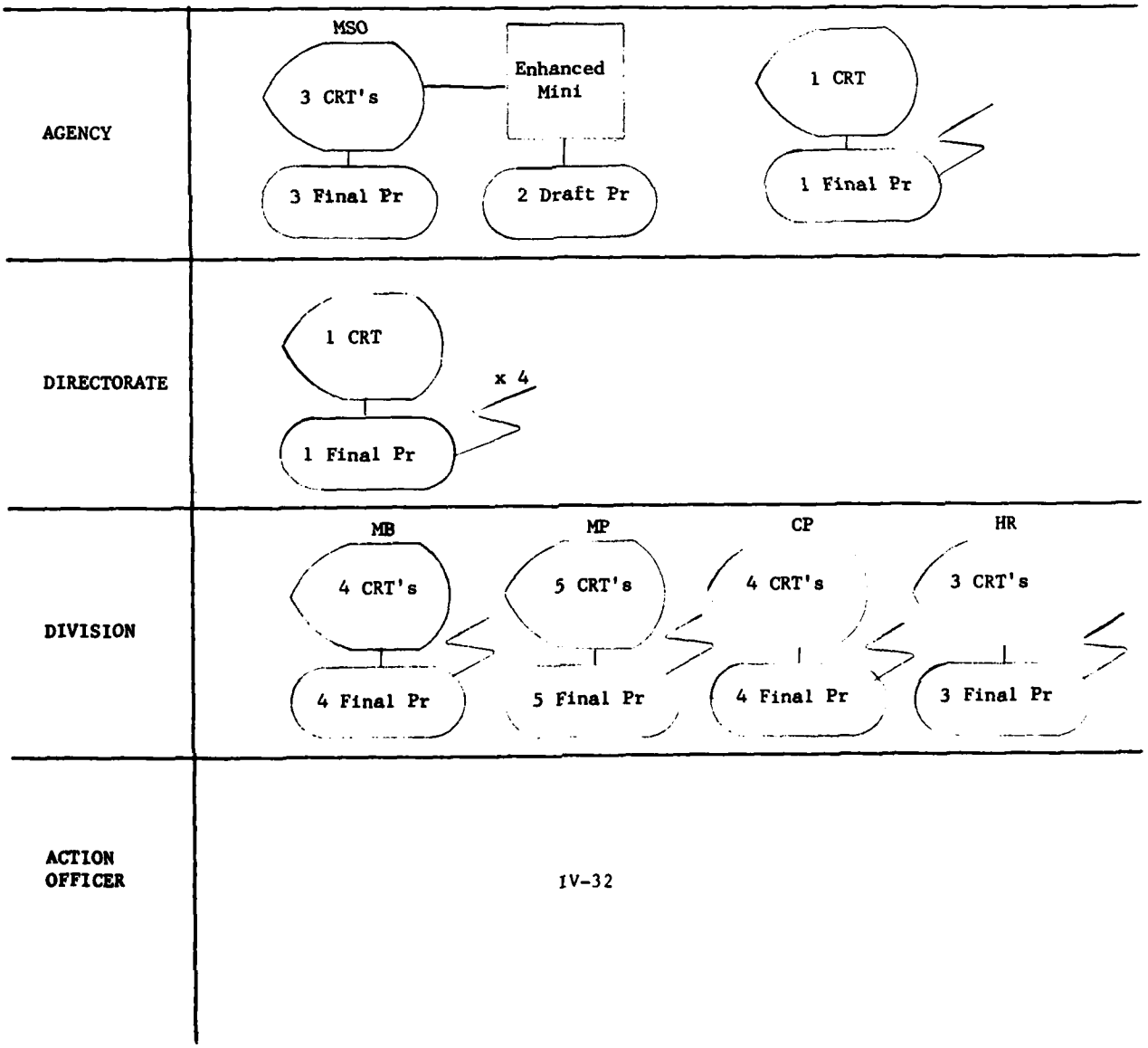
### Advantages

1. Large data base source and access.
2. Provides uniform compatibility among equipment.
3. Provides for expansion of data base and terminals/printers as needed.
4. Built-in communications capability.
5. Can expand mini with software for electronic mail, document tracking, etc.

### Disadvantages

1. Requires facility modification.
2. Costly
3. Modems for communications must be purchased. (Or, lease telephone-company installed models).
4. Requires individual knowledgeable in operation of a mini.

CENTRALIZED/DISTRIBUTED MINI-BASED SYSTEM



CENTRALIZED/DISTRIBUTED MINI-BASED SYSTEM

| | | System Cost | |
|---|---|---|---|
| | | Purchase | Lease |
| | | $407,800-$429,000 | $249,600-$264,000 |
| AGENCY | 1 enhanced mini w/ 24 CRT's w/printers | 385,600-400,000 | 227,400-240,000 |
| | Software | 15,000 | 15,000 |
| | Modems | 7,200-9,000 | 7,200-9,000 |
| DIRECTORATE | | | |
| DIVISION | | | |
| ACTION OFFICER | | | |

## CLUSTERED OPTICAL CHARACTER RECOGNITION (OCR) SYSTEM

### System Design

Provides optical character recognition (OCR) together with a small mini-based word processing center at each directorate level. Documents typed through each directorate are fed into the OCR reader, scanned and digitized for acceptance by a mini-based text editor. Any special requirements for forms, statistical typing and math software are handled on the directorate mini. All final typing for signature is generated from the small word processing center.

### Advantages

1. Provides that existing equipment can become an input station to the mini through the addition of a typing element.

2. Makes efficient use of existing equipment base.

### Disadvantages

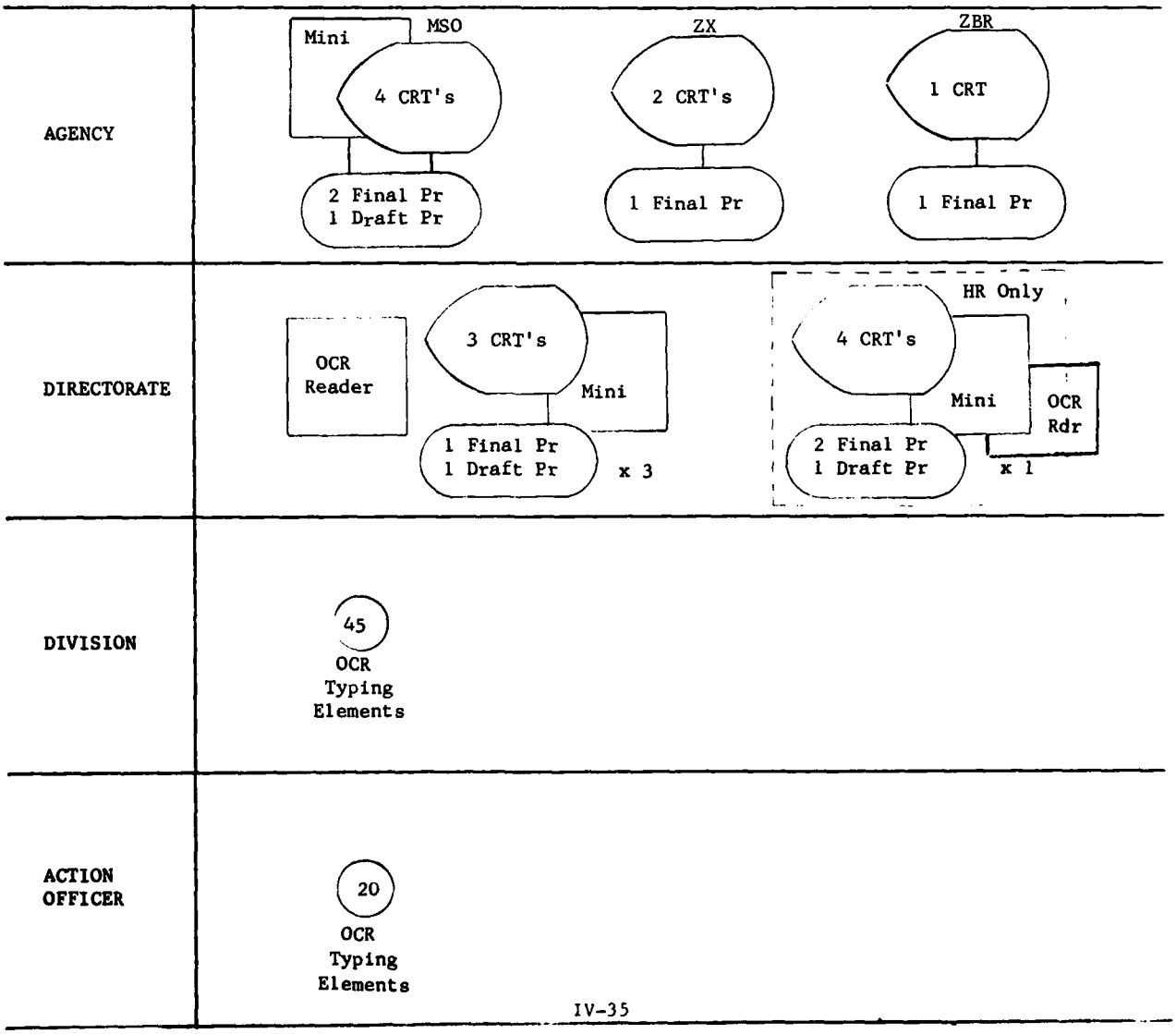
1. If the mini is inoperable in any one directorate, final typing must be performed on existing equipment.

2. Does not provide text editing capability at immediate division level.

3. Requires space and personnel to establish a directorate level word processing center.

4. Costly.

CLUSTERED OPTICAL CHARACTER RECOGNITION (OCR)
SYSTEM



CLUSTERED OPTICAL CHARACTER RECOGNITION (OCR) SYSTEM

| | | System Cost | |
|---|---|---|---|
| | | Purchase | Lease |
| | | $300,680-$491,930 | $143,930-$257,630 |
| AGENCY | (MSO) Mini (96K), 4 CRT's, 3 printers | 65,000-101,000 | 27,000-48,500 |
| | (ZX-ZBR) 3 CRT's, 2 printers | 27,750-36,000 | 12,500-16,200 |
| DIRECTORATE | 4 OCR Readers | 60,000-120,000 | 36,000-60,000 |
| | 3 Minis, 9 CRT's, 6 printers | 147,000-234,000 | 67,500-132,000 |
| | (1 OCR Reader in ea Dir)<br>(1 Mini w/3 CRT's, 2 pr in MB, MP, CP) | | |
| DIVISION | 45 OCR Elements | 650 | 650 |
| ACTION OFFICER | 20 OCR Elements | 280 | 280 |

AD-A089 028 ADJUTANT GENERAL WASHINGTON DC HEADQUARTERS ADMINIST--ETC F/G 5/1
ARMY STAFF AUTOMATED ADMINISTRATIVE SUPPORT SYSTEM (ARSTADS) RE--ETC(U)
JUL 80 L J FLEEGER, D J BARTLETT, J F GORECKI
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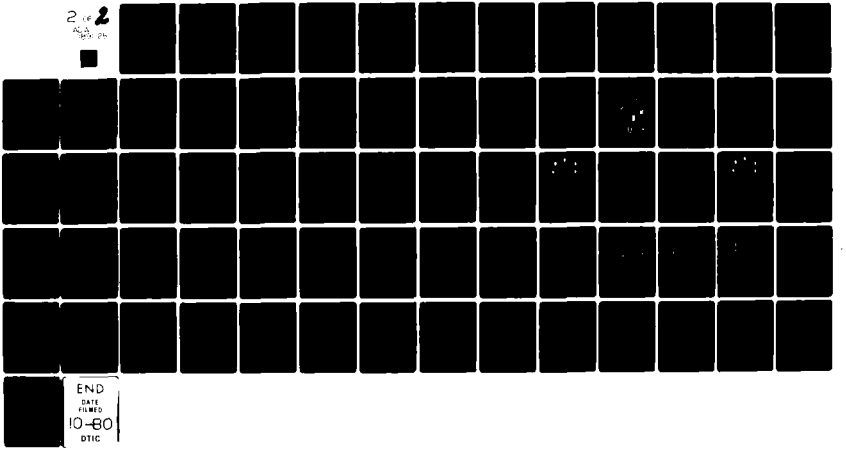

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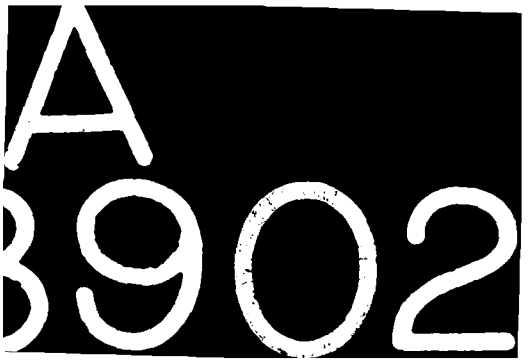
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## DECENTRALIZED STAND-ALONE SYSTEM

### System Design

This stand-alone system provides for text editing capability at each level, dependent upon the requirements of each individual unit. All typing is handled within the originating unit by present personnel.

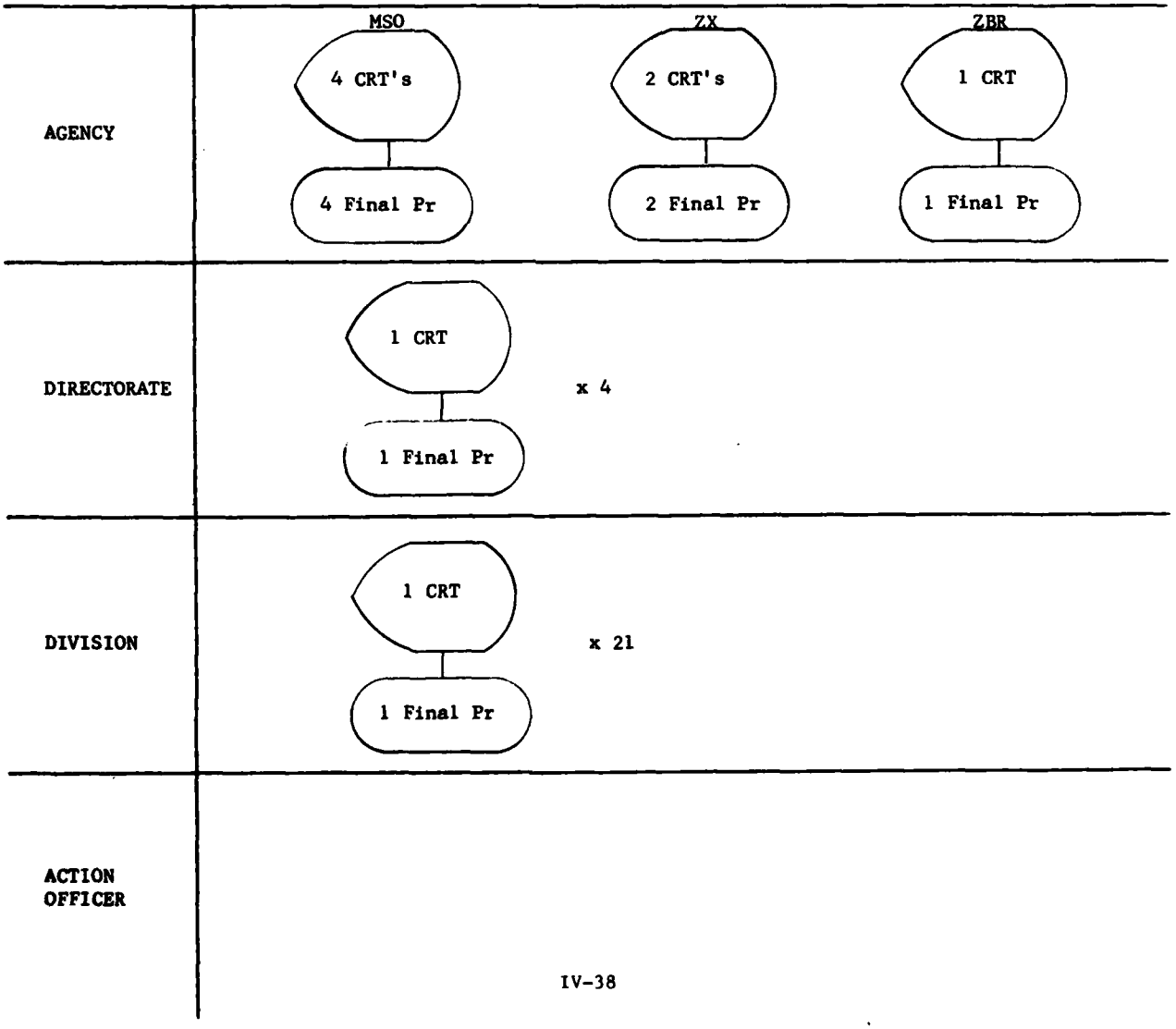
### Advantages

1. Provides text editing capabilities at every level and with sufficient special requirements as needed by individual units.
2. Does not disturb present personnel configuration.
3. Can add communications (to allow access to external systems).
4. Can interface with mini-processor based systems.

### Disadvantages

1. Cost.
2. Individual unit workload may not justify the use of one unit of text editing equipment.
3. Users may require cross-training on different equipment.

DECENTRALIZED STAND-ALONE SYSTEM



DECENTRALIZED STAND-ALONE SYSTEM

| | | System Cost | |
|---|---|---|---|
| | | Purchase | Lease |
| | | $335,750-$445,000 | $198,200-$221,200 |
| AGENCY | (MSO) 4 CRT's w/printers | 60,000-75,000 | 30,600-35,000 |
| | (ZX-ZBR) 3 CRT's w/printers | 27,750-40,000 | 12,600-16,200 |
| DIRECTORATE | 4 CRT's w/printers<br>1 ea directorate | 48,000-55,000 | 25,000-30,000 |
| DIVISION | 21 CRT's w/printers<br>1 ea division | 200,000-375,000 | 130,000-140,000 |
| ACTION OFFICER | | | |

## MODIFIED DECENTRALIZED STAND-ALONE SYSTEM

### System Design

The modified stand-alone system provides for text editing capability at levels where workloads justify equipment. Each unit may have levels of text editing capability different from other units as equipment can be installed based upon specific requirements. All typing is handled within the originating unit by present personnel. No text editing capability is provided for the director's offices.

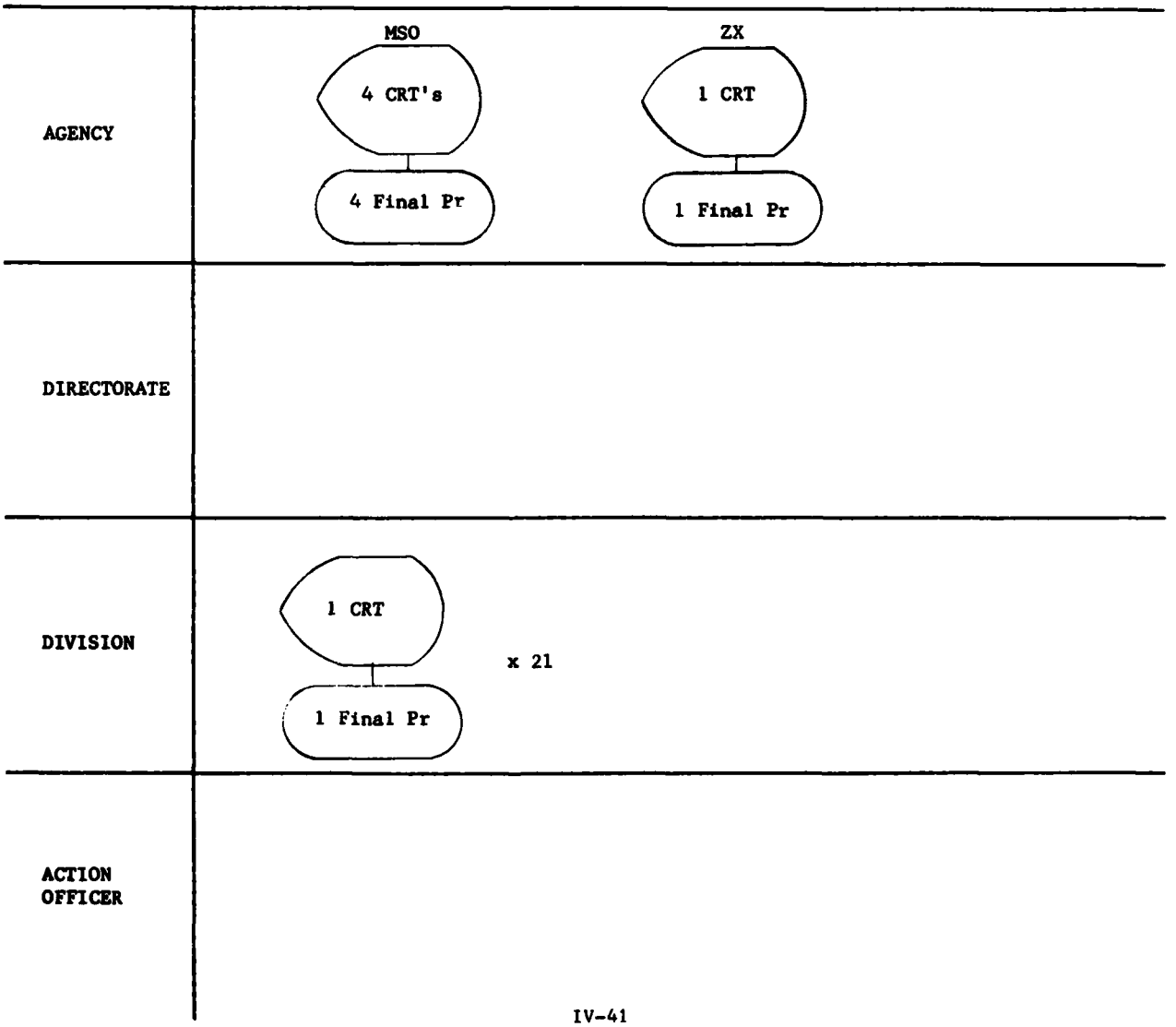
### Advantages

1. Provides text editing capabilities at levels where needed and with sufficient special features needed by individual units.
2. Does not disturb present personnel configuration.
3. Can add communications to interface with external systems.
4. Can interface with mini-based systems.

### Disadvantages

1. Does not provide text editing capability at director's immediate office level.
2. Users may require cross-training on different equipment.

MODIFIED DECENTRALIZED STAND-ALONE SYSTEM



MODIFIED DECENTRALIZED STAND-ALONE SYSTEM

| | | System Costs | |
|---|---|---|---|
| | | Purchase | Lease |
| | | $311,000-393,000 | $167,000-200,000 |
| AGENCY | (MSO) 4 CRT's w/printers | 60,000-75,000 | 30,600-35,000 |
| | (ZX) 1 CRT w/printer | 11,000-13,000 | 6,000-7,000 |
| DIRECTORATE | | | |
| DIVISION | 6 CRT's w/printers | 90,000-105,000 | 50,400-58,000 |
| | 15 CRT's w/printers | 150,000-200,000 | 80,000-100,000 |
| ACTION OFFICER | | | |

APPENDIX V

TO

VOLUME II

# REPROGRAPHICS

## PROBLEMS/ANALYSIS/ALTERNATIVES

THIS APPENDIX CONTAINS A DISCUSSION OF PROBLEMS RELATED TO THE REPROGRAPHICS SUBSYSTEM, ALTERNATIVE SOLUTIONS TO THOSE PROBLEMS, THE RECOMMENDED SOLUTION AND ASSOCIATED COSTS OF IMPLEMENTATION AND TEST.

Appendix V. (Reprographics Problems/Analysis/Solution)

A. PROBLEM 1

1. PROBLEM AND ANALYSIS.

a. Problem. Professionals are performing administrative functions such as copying and collating which should be the functions of administrative support personnel.

b. Analysis. Survey questionnaires reflect that 85 percent of professionals perform administrative functions, normally a support personnel function. The annual cost per year for professionals to perform copying and collating functions is $152,722 compared to $98,548 for clerical. Interviews with personnel and observations indicate that these costs are due, in part, to lack of adequate administrative support personnel and time wasted "waiting in line" at the Army Service Centers. Over half of the agency copying, 201,100 copies per month, is at the Army Service Centers compared to 193,868 at the eight decentralized agency copiers. The copier survey and personal interviews reflect the high usage of the Service Centers is due, in part, to the lack of needed special feature capability and high speed quality reproduction, not available on agency copiers.

2. ALTERNATIVE SOLUTIONS.

a. Alternative A. Make no change to current equipment and procedures.

b. Alternative B. Increase the number of support personnel, increase the number of copiers, and upgrade copier capability to provide easy access and reduce the dependency on the Service Centers

c. Alternative C. Replace copiers in the mailroom with one upgraded copier to provide required additional features and high speed quality copies. Turn in as excess to DSS-W both copiers presently in the mailroom. Implement changes in procedures for better utilization of copiers to reduce copying time spent by professionals.

(Reprographics Contd)

3. DISCUSSION OF ALTERNATIVES

a. Alternative A. Not recommended.

b. Alternative B. An increase in personnel spaces is not possible. Agency copy volume does not support an increase in the number of copiers.

c. Alternative C. Replacement of copiers in the mailroom with one upgraded copier will provide the required copier capabilities within the agency and thereby reduce time spent waiting at the Army Service Centers. Additionally, the following changes in procedures will reduce copying time spent by professionals.

(1) Dedicated operators, assigned as additional duty to clerical personnel in the mailroom, will fill copier requests on the high speed copier in the mailroom for 15+ copies, but not exceeding 25 copies, of more than 10+ pages and requiring special features. Requests will be sent to and returned through mail channels.

(2) Secretaries/clerks will fill copy requests on a scheduled basis (2-3 times a day) on the medium and lower speed agency copiers for requests of 1-15 copies of less than 10 pages. Requests, other than high priority, will be accumulated at a central point in each division.

(3) Requests for 25+ copies of more than 10 pages will be accomplished by Defense Printing - less than 25,000 copies at the Satellite Section, located adjacent to the Army Service Center; more than 25,000, Defense Printing Main Plant.

Above procedures will capitalize on partially centralized copier support, places limitations on number of copies per original that may be made on each copier, and provides monitoring of type material to be reproduced (e.g. blank forms and publications that may otherwise be obtained from an established source will be prohibited).

(Reprographics Contd)

4. IMPLEMENTATION.

a. Phase I. Plan for replacement of government-owned Xerox 3600 and Xerox 2400 with one leased upgraded copier, either Kodak 150 or Xerox 8200. Turn in as excess to DSS-W government-owned copiers.

Present annual maintenance cost:
Xerox 3600 - $3,970
Xerox 2400 - $3,000

Proposed annual lease/maintenance cost:
Kodak 150 - $21,300 (100,000 copies per month)
Xerox 8200 - $23,281 (100,000 copies per month)

b. Phase II. Implement procedures for accomplishing copy requirements to reduce amount of time professionals spend copying and collating.

c. Phase III. Install and test the copier and new procedures.

B. PROBLEM 2.

1. PROBLEM AND ANALYSIS.

a. Problem. Agency copiers do not have the special features and accessories to meet user needs such as reduction, automatic two-sided copying, high collating, stapling, and stacking

b. Analysis. Survey report reflects that all directorates have a need for all or a portion of special features cited. Of these features the only feature available on the agency copiers is 10-bin collating capability on two copiers - Xerox 3600 in Room 2D719 and the IBM II in Room 2D679.

2. ALTERNATIVE SOLUTIONS.

a. Alternative A. Make no changes.

b. Alternative B. Replace copiers in the mailroom with one upgraded copier to provide required special features. Turn in as excess to DSS-W both copiers presently in the mailroom.

(Reprographics Contd)

3. DISCUSSION OF ALTERNATIVES.

a. Alternative A. Not recommended.

b. Alternative B. Replacement of copiers in the mailroom with one upgraded copier will provide the required special features and accessories to meet user needs.

C. PROBLEM 3.

1. PROBLEM AND ANALYSIS.

a. Problem. In two directorates, location of copiers does not provide ready access.

b. Analysis. Survey report reflects that less than 50% of respondents (39%) to questionnaire are satisfied that copying requirements are met in a timely manner. In addition to agency copier limitations, two directorates have no assigned copiers and must rely on copiers located throughout the agency and Service Centers.

2. ALTERNATIVE SOLUTIONS.

a. Alternative A. Make no change in current configuration.

b. Alternative B. Relocate directorate copiers on basis of space availability for better user accessibility

3. DISCUSSION OF ALTERNATIVES.

a. Alternative A. Not recommended.

b. Alternative B. Relocation of copiers to meet directorate needs will result in increased usage of agency copiers. Should relocation of copiers within the agency be currently limited by space availability, such relocation should be considered in the event reorganization or realignment occur.

c. Test Plan. Initiation of subsequent survey will determine if additional requirements exist, resulting from a shift in copy volume from the service centers to agency copiers. In such cases, additional copiers may be justified.

(Reprographics Contd)

D. TEST OF INTELLIGENT COPIER/PRINTER

1. Discussion. Current copier technology provides the capability to satisfy copier requirements electronically. Copies can be produced on an intelligent copier/printer through interface with word processing or data processing systems. This copier technology also provides for the electronic distribution of documents. This technology will be implemented during the test period, and based upon test data could result in a reduction of the total number of copiers required throughout the agency.

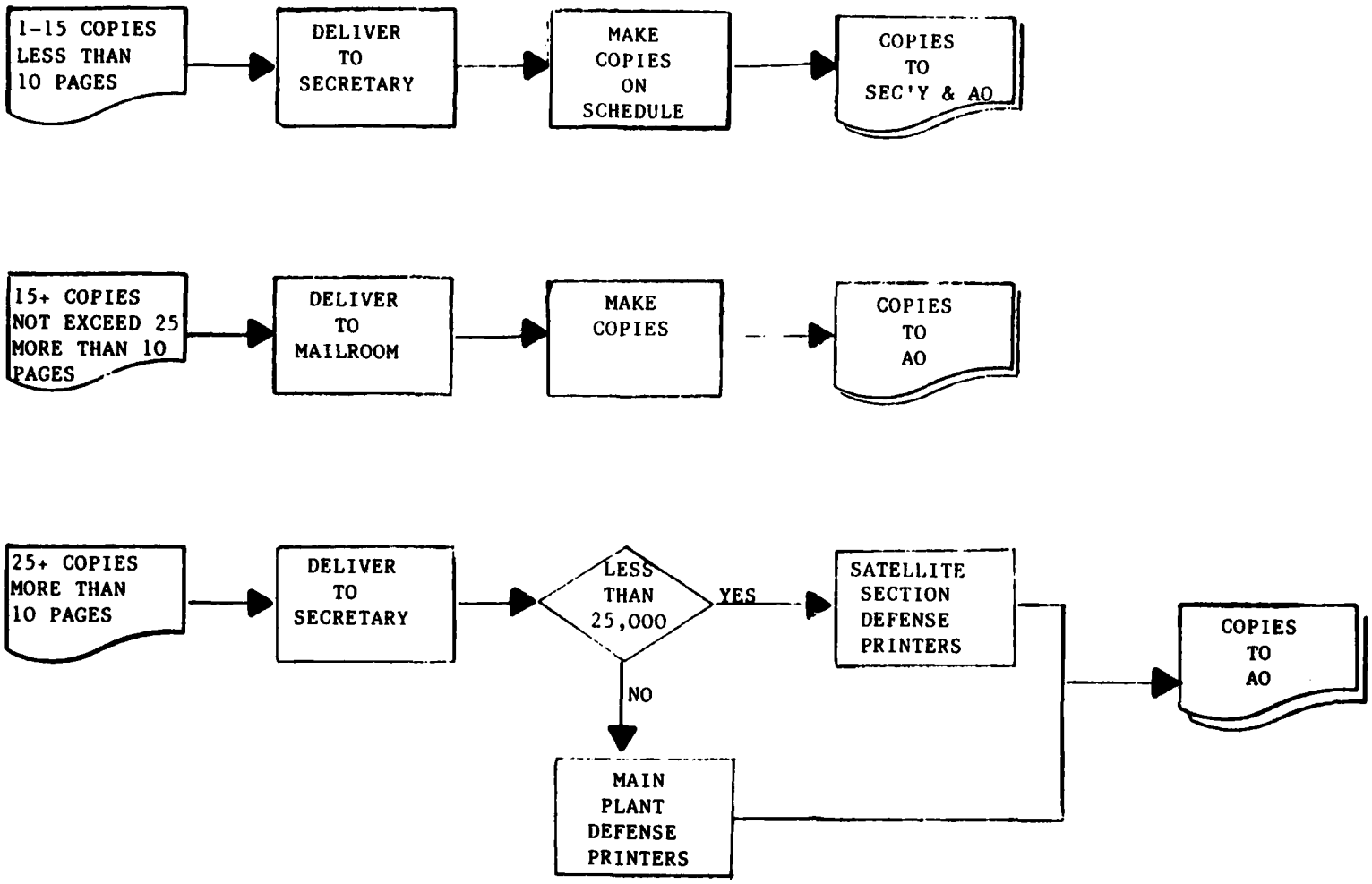
2. Implementation.

a. Phase I. Plan for the acquisition and installation of an intelligent copier.

b. Phase II. Develop and implement procedures for the utilization of the intelligent copier.

c. Phase III. Install and test.

# PROPOSED COPYING PROCEDURES



# APPENDIX VI

TO

VOLUME II

## MICROGRAPHICS

## PROBLEMS/ANALYSIS/ALTERNATIVES

THIS APPENDIX CONTAINS A DISCUSSION OF PROBLEMS RELATED TO THE MICROGRAPHICS SUBSYSTEM, ALTERNATIVE SOLUTIONS TO THOSE PROBLEMS, THE RECOMMENDED SOLUTION AND ASSOCIATED COSTS OF IMPLMENTATION AND TEST.

Appendix VI. (Micrographics Problems/Analysis/Alternatives)

A. PROBLEM: Action officers are using desk drawers rather than the central files for storage and retrieval which implies lack of trust and understanding of the file system.

1. ANALYSIS: Generally throughout the agency the Army Functional File System (TAFFS) is used. Files are usually maintained by division and branch secretaries but records management regulations are not adhered to. Many personnel interviewed felt that TAFFS was not suitable for their purposes. Survey qustionnaire reflect that 61% of action officers most often refer to their desk drawer files for storage and retrieval of documents implying they either do not understand or do not trust the filing system.

2. ALTERNATIVES.

a. Alternative A: Make no change to current method of filing, storing or retrieving of records.

b. Alternative B: Develop a files index, set procedures for maintenance and disposal of records in accordance with TAFFS. Purge files and implement use of the charge-out cards for records removed from files. Provide training for secretaries and AOs for proper maintenance and disposition of records.

3. DISCUSSION OF ALTERNATIVES.

a. Alternative A. Not recommended.

b. Alternative B. Will reduce mistrust of the files by the AO, produce quicker access and retrieval of records. Storage containers will also be reduced and other methods of storage media will be possible.

(App 6 Contd)

B. PROBLEM: Offices are over crowded with record storage containers creating an unsatisfactory work environment.

1. ANALYSIS: Survey questionnaire and interviews reflect that 40% of personnel are not satisfied with work environment; 31% are somewhat satisifed. Observations of office environments reveal that offices are designed around record storage containers which consume approximately 1697 square feet of the agency allocated space. Survey questionnaire reflects an average of 111 square ft. of space per person based on total square footage for the agency; actual space is less, reduced by the footage occupied by the files.

2. ALTERNATIVES:

a. Alternative A. Make no change.

b. Alternative B. Obtain additional personnel and storage space.

c. Alternative C. Reduce the number of records storage containers and increase personnel space.

3. DISCUSSION OF ALTERNATIVE:

a. Alternative A. Not recommended

b. Alternative B. An increase in office space is not possible. Records stored cannot be eliminated; therefore, the average actual space occupied per person in the agency is reduced by that space the files occupy.

c. Alternative C. Reduce the number of record storage container space by storing records on a media other than hard copy. This will increase actual personnel space, allow for rearrangement of the offices, improve lighting and ventilation, and create a better work environment.

(App 6 Contd)

C. PROBLEM: Offices crowded with record storage containers. Numbers of records to be stored are increasing daily.

1. ANALYSIS: Survey questionnaire reflects that records are filed in safes, file cabinets (2, 4, and 5 drawers), bookcases and open shelving which occupy 1697 sq. feet of space. As records continue to increase so do space costs. Space costs $6.29 per sq. ft. in 1980 and will increase to $10.03 in 1981. Files are behind in maintenance; records are sometimes lost; some records are placed in boxes waiting for someone to file or for a place to be filed. Interviews reflect that the records now stored are frequently used and most cannot be retired. Some branches are solving lack of storage containers and shortages of space through micro-media storage.

2. ALTERNATIVES.

a. Alternative A. Make no change to current file and storage methods or equipment.

b. Alternative B. Produce all records for storage on microform, starting with current files and retaining existing records in hard copy form.

c. Alternative C. Convert all permanent and long term records to microform.

3. DISCUSSION OF ALTERNATIVE.

a. Alternative A. Not recommended.

b. Alternative B. Producing all current records on microform as of a given date will not decrease the number of record storage containers presently required for filing.

c. Alternative C. Conversion of permanent and long term records to microform will:

(1) Increase file integrity.
(2) Increase AO and clerical productivity.
(3) Increase security for vital records.
(4) Allow for more effective utilization of valuable floor space.
(5) Reduce labor cost to access, store and retrieve records.
(6) Develop trust in the Army Functional File System.
(7) Improve work environment.

(App 6 Contd)

D. IMPLEMENTATION

1. PHASE I: Pre-conversion plan for phased conversion of permanent and long term records to microfiche.

a. Conduct indepth review of permanent and long term documents to be stored on microfiche, eliminate those stored by one or more branches.

b. Identify records which require distribution to one or more branches, directorates, and MACOMs to eliminate creating multiple original microfiche.

c. Plan for acquisition of equipment, quantities by type, determine need based on volumes of microfiche users.

Readers: $150.00 ea recommend 100 (on hand 8).

Reader/Printers: $1000.00 ea recommend 23 (on hand 3).

Storage Containers: quantity and size to be determined after indepth review of records to be miniaturized.

d. Determinations to be made when converting to microfiche.

(1) In-House: Provide labor and supplies, no delay for turnaround time, and no over-size document capabilities.

(2) Radford-Army: Turn-around time 4-5 days at no cost but no archival processing.

(3) AF Service Center: Provide labor and establish reimbursable order for supplies. Turn-around time same as in-house, have oversize document capability and can produce archival quality microfiche.

(4) Navy Yard Micrographic Center: Turn around time is 1-5 days. Cost includes archival silver original/duplicates. No oversize capability.

(5) Service Bureau Contract: Turn around time 1-30 days. Cost includes archival silver original/duplicates, pick up and document preparation cost must be added. Method of conversion to be determined by length of time records can be out of file with minimum disruption to operations, size and condition of records, archival requirements and cost.

(App 6 Contd)

2. PHASE II

a. Eliminates management and user reluctance to use micrographics as a media for record storage which will permit ease of access, storage and retrieval of information.

b. Establish procedures for document preparation, indexing, classifying, filming, managing the system and maintenance of the files.

c. Develop training plan and train personnel to prepare documents for filming, to film records, to access, store and retrieve from the files, to reproduce hard copy from micro images when required and to manage/maintain the files once converted to microform.

## ARSTADS MICROFICHE IMPLEMENTATION PLAN FOR ODCSPER

1. Phase conversion of all permanent records to microfiche.

2. Phase conversion of all long term records to microfiche.

3. Through the proposed ADP system, documents will come into ODCSPER several ways, either through the mail room or directly. Either way all incoming/outgoing source documents will be indexed and placed on microfiche for full text retrieval when needed.

4. In-house source document generated on magnetic media could be converted to microfiche through COM conversion.

5. Request all computer generated listings be provided in microfiche rather than hard copy from USAMSSA, MILPERCEN, RCPAC, USAFAC and ANGB.

6. Request all publications, regulations, indexes, policies, procedures, guidance etc., be published on microfiche for replacement of existing hard copy.

7. LONG RANGE: If determined that an automated storage and retrieval system is feasible for the Army Staff, then converted permanent records and long term documents would become part of the system. This would allow automatic access to information, consolidated storage of documents, retrieval of full text documents on CRT, microfiche and/or hard copy.

## MICROGRAPHICS COSTS

### A. EQUIPMENT REQUIREMENTS

1. At Branch Level, to place a minimum of one reader, utilizing equipment on hand, the requirement is 92 additional readers. (Total requirement 100)

| | | |
|---|---|---|
| Readers on-hand | 8 | |
| Reader/Printers on-hand | 3 | |
| Add'l requirement | 92 @ $150.00 | $13,800.00 |

2. At Division Level, to place one reader/printer, utilizing equipment on hand, the requirement is 20 additional reader/printers. (Total requirment 23).

| | | |
|---|---|---|
| Add'l requirement | 20 @ $1000 | $20,000.00 |

3. At Directorate Level, to place one reader/printer, utilizing equipment on hand, the requirement is 3 additional reader/printers. (Total requirement 6).

| | |
|---|---|
| Add'l requirement | 3 @ $1000 = $ 3,000.00 |

4. Recommend minimum of 1 reader per branch and one reader/printer per division.

5. For the purpose of developing equipment cost and estimates, the following assumptions are made:

   a. ASSUMPTION #1: Eliminate user reluctance by providing adequate equipment convienently located.

   b. ASSUMPTION #2: More than one user needs reader at the same time, user can use reader in another branch close by.

   c. ASSUMPTION #3: That COM (Computer Output Microform) will be received and replace computer outputs in hard copy. Daily work load requirement must be acted on as they are received, reader must be available during the test. There must be a minimum of one reader at the branch level.

6. Based on assumption, equipment requirement and cost will be developed at the branch level subject to change after an indepth review of agency records to be converted to microfiche.

(Micrographics Cost Contd)

B. CONVERSION

1. Conversion of records to microfiche, survey questionnaire implied that over 10 million pages are stored. Based on interview and alternatives recommended approximately 500,000 pages will remain for conversion to microfiche.

   a. In-house - Originals $ .90 ea
      Duplicates .05 ea

   b. AF Service Center (self-svc). Same as in-house cost and must furnish labor.

   c. Navy Yard Micrographics Center
      Silver Originals (Archival) $4.50 ea
      Duplicates .07 ea

   d. Radford - No cost and film is not archival.

   e. Contract Service Bureau
      Silver Original $ 8.50 - 10.00 ea
      Silver Duplicate .25 ea
      Duplicates .18 ea
      Pick up/Delivery Charge $ 10.00 - 25.00

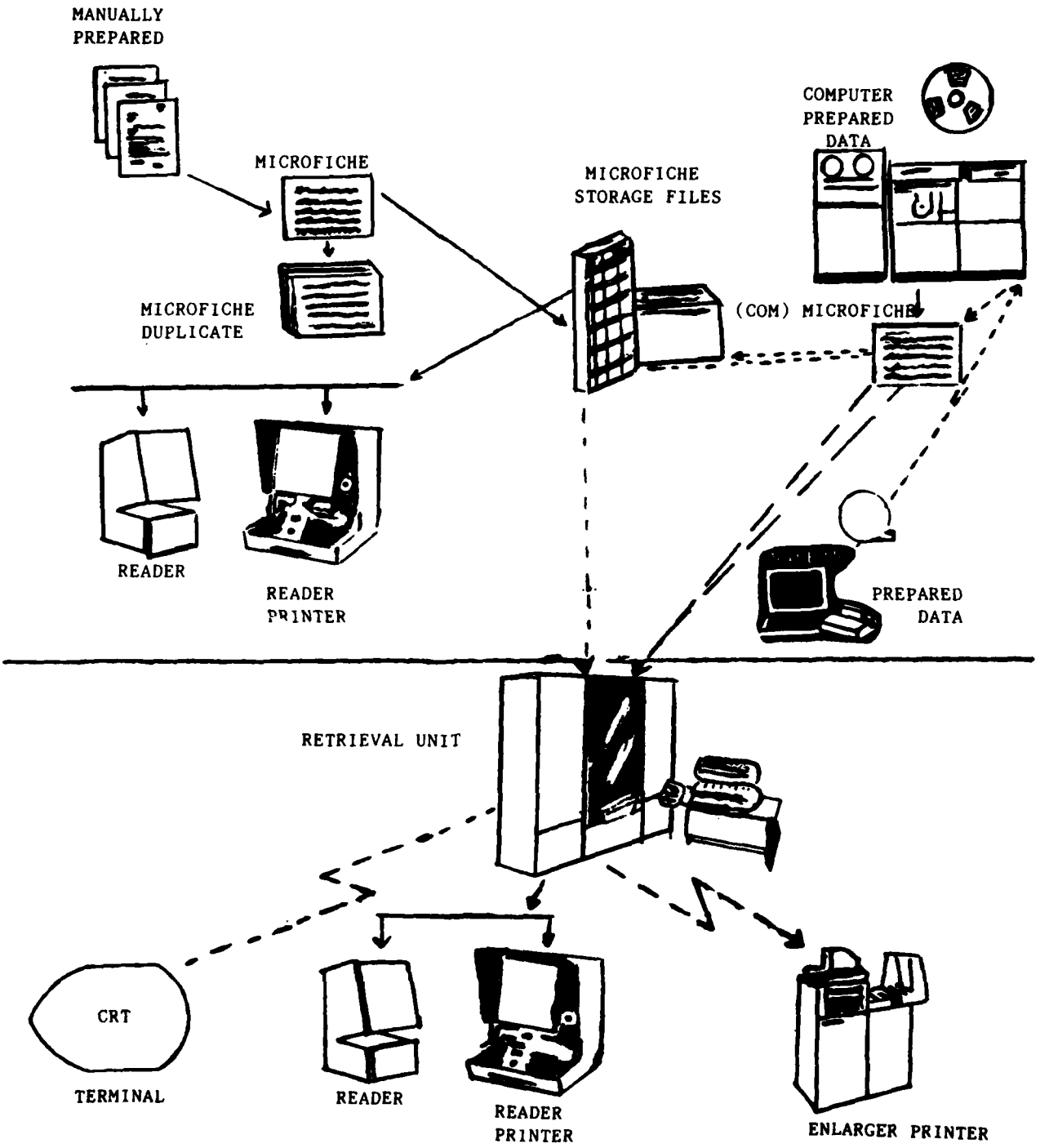
2 Estimate for conversion of files to microfiche.
500,000 pages = 98 images (records)
per fiche =

| | |
|---|---|
| Microfiche required | 5,103 |
| Average cost per microfiche | X 3.00 |
| Microfiche cost | $15,309 |
| | |
| 29 reader/printers @ $1000 ea | $29,000 |
| 100 readers @ $150 ea | 15,000 |
| | $44,000 |
| Less on-hand readers (8 @ 150) | 1,200 |
| Reader/printer(3 @ $1000) | 3,000 |
| Equipment Cost | $39,800 |

3. Total Micrographics Cost

| | | |
|---|---|---|
| 500,000 pages=5,103 microfiche | | |
| X $3.00 average cost = | | $15,309 |
| Equipment Cost | | 39,800 |
| Miscellaneous Costs | | 5,000 |
| | Total cost | $60,109 |

# MICROGRAPHICS SYSTEM



# APPENDIX VII

TO

VOLUME II

## DATA PROCESSING

## PROBLEMS/ANALYSIS/ALTERNATIVES

THIS APPENDIX CONTAINS A DISCUSSION OF PROBLEMS RELATED TO THE DATA PROCESSING SUBSYSTEM, ALTERNATIVE SOLUTIONS TO THOSE PROBLEMS, THE RECOMMENDED SOLUTION AND ASSOCIATED COSTS OF IMPLEMENTATION AND TEST.

Appendix VII. (ADP Problems/Discussion/Solution)

1. PROBLEM: ODCSPER does not have a complete, integrated information management system for researching, retrieving, storing and disposing of key documents and information. Sub problems of this are:

   a. There is no standard system for the receipt, tracking and control of incoming and outgoing documents.

   b. There is no standard system for access to, retrieval of and storage of key documents/information.

   c. There is no standard system for the distribution of key documents/information.

2 DISCUSSION:

   a. Document Control: During the survey, ODCSPER personnel reported not controlling 48% of their actions by any system. The agency mailroom currently has a terminal to the ASG (Administrative Systems Group) mailroom system; however, it is only used to monitor the status of ODCSPER suspensed actions.

   b. Document Access/Retrieval/Storage: There is no central agency file for the storage, access to and retrieval of key documents and information. Action Officers (AOs) rely primarily (63% of time) on their own desk file. They infrequently use outside research sources, the Army Library being the number one outside source. The annual cost to ODCSPER for AOs to maintain their own files is $99K compared to $43K for administrative personnel. Additionally the annual cost to the agency for both AOs and administrative personnel to perform research is $810K. ODCSPER does use the OPTIMIS System; however, this is primarily an AO oriented research tool and does not provide for access to or retrieval of the source document in all cases. The ASG System provides for storage of key documents on microform and access to those documents; however, it does not capture all documents and does not provide for easy access by the AO.

c. Document/Information Distribution During the coordination process, an action is reviewed 3 or more times (73% of the time). There is no system to facilitate this process. The dispersion of ODCSPER elements seems to indicate a need for a system to facilitate the many communications between those elements. Currently this is accomplished by telephone, TWX, hand carry, messenger service or facsimile. Use of telephone due to time differential and distance involved does not afford the AO/manager the opportunity for most efficient management of his/her work day. Messenger service is too slow in some instances. Use of facsimile is currently limited because it is slow, remote to the user and requires both a sender and receiver. The cost to ODCSPER for the AO to handcarry documents is $185K annually

3. ALTERNATIVES: There are six alternatives to the solution of the entire problem or parts of this problem. These alternatives are listed below and are dicussed in detail in the attached pages:

a. Alternative I: The ASG System resolves the document control problem and is currently a partial solution to the document access, retrieval and storage problem. It is administratively oriented and focuses primarily on incoming documents.

b. Alternative II: The OPTIMIS system resolves (partially) the document access, retrieval and storage problems. It is AO oriented and focuses primarily on completed actions.

c. Alternative III. Agency controlled and operated minicomputer and software. This alternative is satisfied by a number of vendors and addresses the entire problem.

d. Alternative IV. Vendor controlled, agency operated minicomputer and software. This alternative can also be satisfied by a number of vendors and addresses the entire problem.

e. Alternative V. Time-sharing. This alternative is satisfied by a number of vendors and addresses the entire problem without the requirement for agency dedicated space and personnel.

f. Alternative VI. Use of the ASG, OPTIMIS systems and time sharing to resolve the entire problem.

4. RECOMMENDED SOLUTION.

a. The ASG and OPTIMIS systems will be used as the solution to the problems of document control, access, retrieval, distribution and storage. These systems are already operational either partially (ASG) or totally (OPTIMIS) with ODCSPER and offer the most cost effective solution.

b. The ASG system when used with OPTIMIS solves the problem of document control and storage and provides access to and retrieval of documents through either the ASG hard wired terminals or the OPTIMIS system which contains the history of all ASG transactions. This system should be installed in the August - September 1980 time frame to allow for fine tuning prior to formal initiation of the test in October 1980. A detailed discussion of the operation of ASG and several options on the micrographics equipment to be used is contained in Alternative VI.

c. A test of the electronic mailbox feature available through a time-sharing contract will provide a basis for the evaluation of electronic mailbox capability to address the problem of document distribution. A detailed discussion of time-sharing and its applications is in Alternative VI.

## ALTERNATIVE I - ASG System

1. The ASG System is now operating on a minicomputer in the OSA mailroom. The contents of the data base are incoming/outgoing correspondence being processed by the OSA mailroom. Only hard-wired computer terminals can be used for inquiries. Located in the mailroom is the microfiche source document camera which is used to microfiche all documentation processed through the mailroom and is used as the ASG Central File.

2. Incoming documents processed through the Chief of Staff mailroom are assigned control numbers, document data (Subject, From, To, Synopsis, etc.) are entered electronically into the ASG inquiry data base and the complete document is microfiched for the ASG Central File.

3. Outgoing documents are usually replies to an action originally received from the OSA mailroom. The control numbers have been previously assigned, therefore, the related entry on the data base and the original microfiche will be located and the reply will be added before distribution is made.

4. When an inquiry is made to the system and a copy of the document is needed, the ASG mailroom can provide a hard copy (paper) or a microfiche duplicate from the microfiche on file.

5. COST

   a. In-house minicomputer.
   b. Microfiche camera/duplicator $30,000 plus any supplies and film.
   c. Hard wired terminals w/communication devices cost $5,500 per unit.
   d. Automated storage/retrieval microfiche unit - $60,000.

6. USE OF THE ASG SYSTEM

   a. <u>ADVANTAGES</u>

      (1) The ASG System is operational with a partial microfiche file already established.

      (2) ODCSPER mailroom has a terminal to the ASG System and personnel are familiar with procedures; therefore, creating smoother transition when fully establishing ASG in ODCSPER.

      (3) Immediate interface between an approved ARSTADS and ASG Concepts.

(Alt I Contd)

DISADVANTAGES

(1) AOs cannot use the dial-up portable terminals in ODCSPER to make inquiries to the ASG data base which uses hard-wired computer terminals.

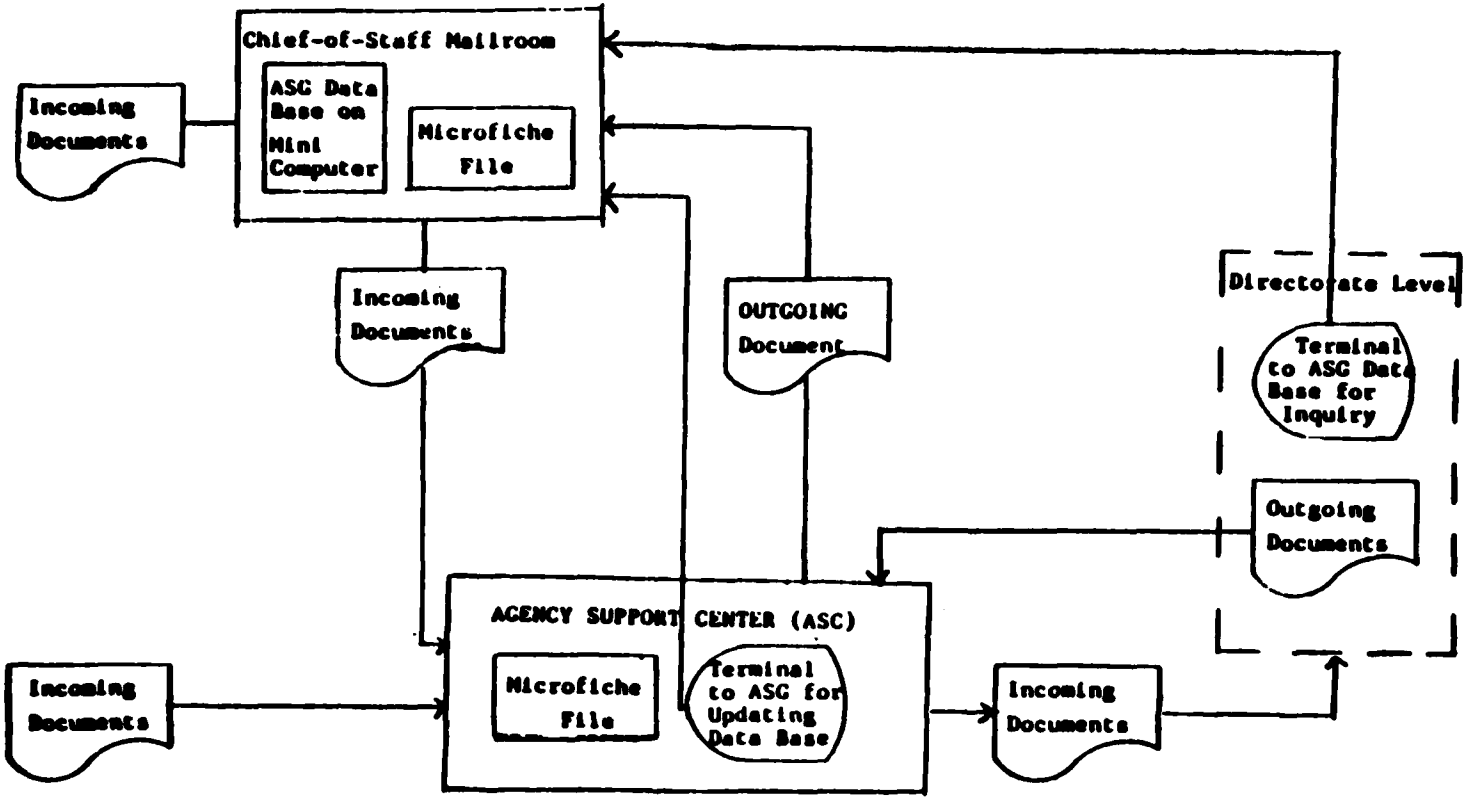
(2) The ASG data base does not contain all incoming and outgoing correspondence only those processed through the Chief of Staff mailroom.

(3) The ASG System has not been fully implemented within ODCSPER and there will be a time factor for ASG to be initiated.

(4) The ASG System does not currently support any additional features such as electronic mailboxing.

(5) The ASG System is limited in its searching techniques.

ALTERNATIVE 1 - ASG System



## Alternative II - OPTIMIS

1. The OPTIMIS data base is operating on the computer located at Battelle Labs, Columbus, Ohio. Plans are to transfer the data base and supporting programs to USAMSSA sometime in FY 80.

2. Dialup portable terminals (Texas Inst "Silent 700") are used to make inquiries to the system at AO levels.

3. Until recently, the information contained on the data base related only to outgoing completed actions. In Dec 80, the ASG data base was put on computer magnetic tapes and mailed to Battelle. Using conversion programs, the tapes are reformated and added to the OPTIMIS file. This same procedure will be followed once a month giving the AO the capability to query both data bases using OPTIMIS.

4. A copy of SELECTED outgoing documents are sent to the OPTIMIS control room by the AOs for entry into the data base. There document data (Subject, From, To, AO name & extension), are electronically keyed into the data base. The system automatically assigns a control number to the entry and the paper copy is destroyed unless return is indicated by the AO.

5. When an inquiry is made to the system and a copy of a document is needed, the system will direct the AO to the originating agency, AO and telephone extension, where a copy can be retrieved.

6. COST:

   a. Computer - contract w/Battelle Labs. $10,000

   b. 13 dialup portable terminals now located in ODCSPER at a lease cost of $97 each per month or a total of $1261. Annual lease cost is $15,132.

7. Use of OPTIMIS

   a. ADVANTAGES

      (1) Inquiries are made at AO level from their desk using the portable terminals.

      (2) Personnel in ODCSPER are familiar in the use of OPTIMIS.

      (3) OPTIMIS can be accessed by word processing systems which contain communication packages and telephone modems.

(Alt II Contd)

(4) OPTIMIS has a toll-free number for evening and week-end use. This allows the AOs to take the portable terminals home to query the data base if they so desire.

(5) The OPTIMIS System could be used as an index to current/ historical documents and additional data base information.

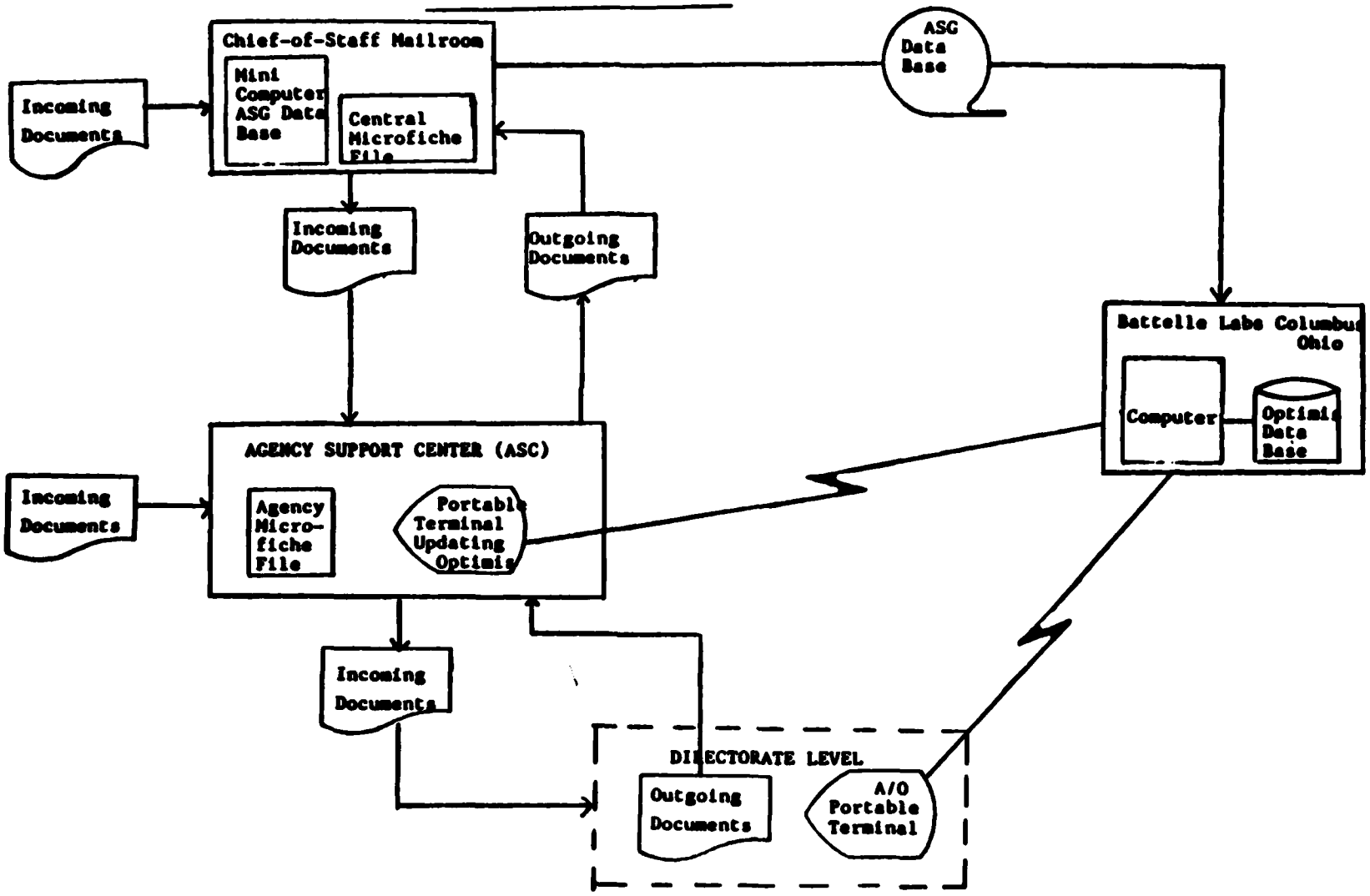
(6) The OPTIMIS Data Base Management System (BASIS) is a document indexing system that affords unlimited potential.

b. DISADVANTAGES

(1) The OPTIMIS System does not provide for a central file for source documents in either paper or microfiche form.

(2) The OPTIMIS System does not provide for the purging of outdated files.

## ALTERNATIVE II - OPTIMIS



## Alternative III - In-House Minicomputer

1. An in-house minicomputer would contain the Agency Support Center (ASC) data base, disk work areas, storage and connectors for word processin stati ns, support for electronic mailbox and possible interface with the ASG minicomputer.

2. All incoming/outgoing documents would be processed through a control desk located in the agency mailroom. At that desk control numbers would be assigned and selected data entered electronically into a data base.

3. The documents would then be microfiched using a microfiche camera/duplicator located in the mailroom. The microfiche would then be filed in an agency central file also located in the mailroom.

4. To query the data base, an A/O would use either a dialup portable terminal or communicating word processors. The information received would direct the A/O to the microfiche file containing the required document, where upon request, a copy or an abstract of the document could be provided.

5. COST

| | | |
|---|---|---|
| a. | Minicomputer w/software, peripherals, communication devices | $80,000 - $100,000 |
| b. | Personnel (1 GS-09 Computer Prog, 1 GS-07 Operation Supvr, 2 GS-05 Operators) | $ 54,000 |
| c. | Micrographics | |
| | Camera maintenance per yr | $ 3,036 |
| | Film cost 63,440 documents per yr | |
| | 62,000 master microfiche @ $.40 per | $ 24,800 |
| | 20,000 duplicate microfiche @ $.07 per | $ 1,400 |
| d. | Portable terminals - lease 30 @ $97 each per month for $2,910. Annual lease would be | $ 34,940 |
| e. | Space with adequate air conditioning and upgrade of electrical requirements to accommodate configuration. Electrical costs are unknown at this time: Minimum space required would be 150 sq ft at a current cost of $6.24 per sq ft or | $ 936 |
| f. | Total cost Alterantive III | $220,876. |

(Alt III Contd)

6. USE OF IN-HOUSE MINICOMPUTER

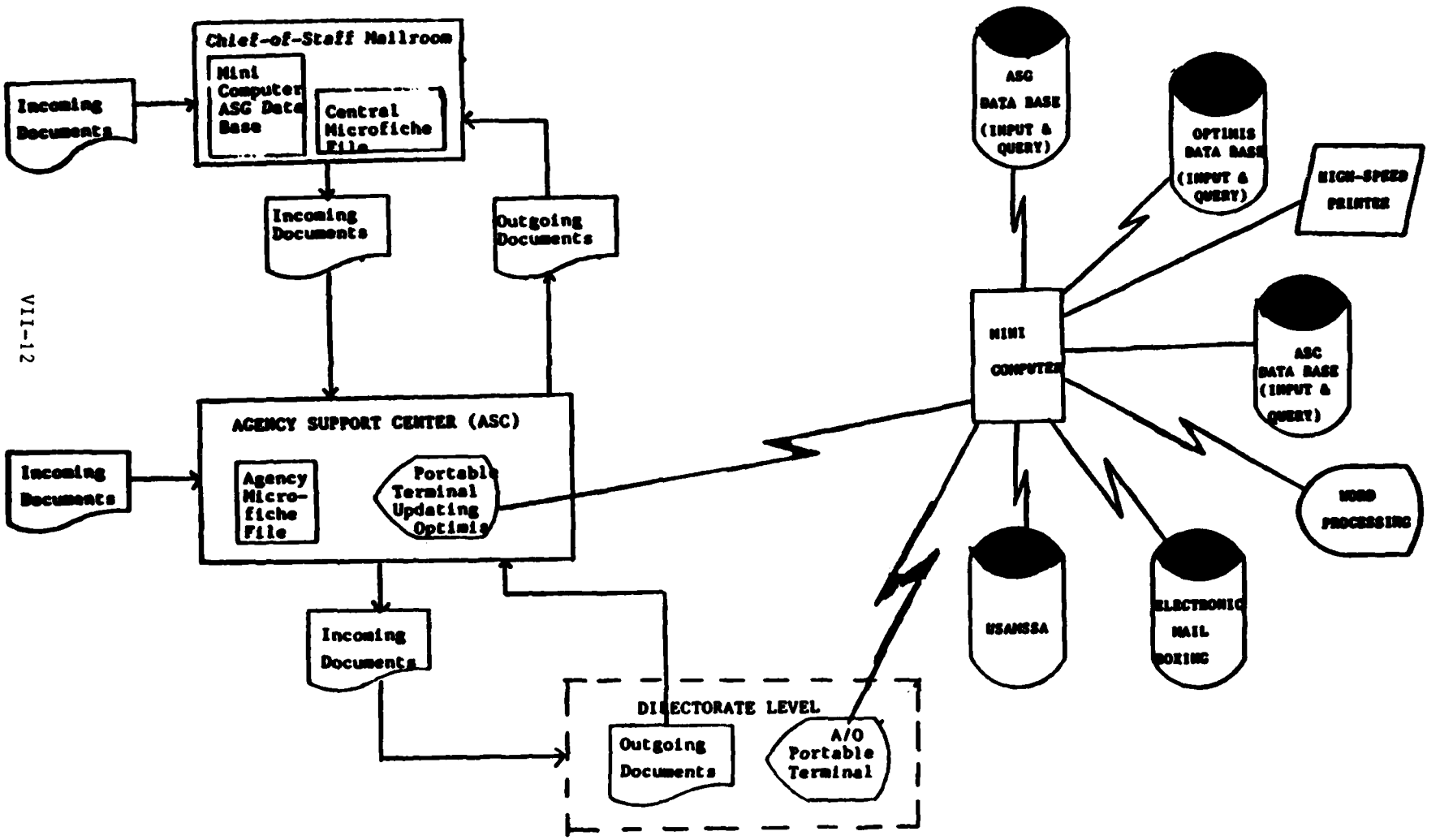
a. ADVANTAGES

(1) Agency would have total control of operations
(2) Capability to add minor ADP programs
(3) Adapts to technology
(4) Adapts to networking
(5) Can be linked to other systems
(6) Can be used as interface between word processing, micrographics, microprocessors, reprographics and mainframe computers (USAMSSA & MILPERCEN)

b. DISADVANTAGES

(1) Requires operational support (4 personnel)
(2) Needs systems programming support
(3) System would be costly and the expense would not be warranted for short (1 year) test.

## ALTERNATIVE III - IN-HOUSE MINI COMPUTER



Alternative IV - In-House Minicomputer (Vendor Controlled)

1. An in-house, vendor controlled minicomputer would contain the Agency Support Center (ASC) data base, disk work areas, storage and connectors for word processing stations, support for electronic mailbox and possible interface with the ASG minicomputer.

2. All incoming/outgoing documents would be processed through a control desk located in the agency mailroom. At that desk control numbers would be assigned and selected data entered electronically into a data base.

3. The documents would then be microfiched using a microfiche camera/duplicator located in the mailroom. The microfiche would be filed in an agency central file also located in the mailroom.

4. To query the data base, an A/O would use a dialup portable terminal or communicating word processors. The information received would direct the A/O to the microfiche file containing the required document where upon request, a copy or an abstract of the document could be provided.

5. COST:

| | | | |
|---|---|---|---|
| a. | Minicomputer w/software, peripherals, communication devices | | $80,000 - $100,000 |
| b. | Personnel (1 GS-07 Supvr, 2 GS-05 Operators) | | $ 37,000 |
| c. | Micrographics | | |
| | Camera maintenance per yr | $ 3,036 | |
| | Film cost 63,440 documents per yr | | |
| | 62,000 master microfiche @ $.40 per | $ 24,800 | |
| | 20,000 duplicate microfiche @ $.07 per | $ 1,400 | |
| d. | Portable terminals - lease 30 @ $97 each per month for $2,910. Annual lease would be | $ 34,940 | |
| e | Space with adequate air conditioning and upgrade of electrical requirements to accommodate configuration. Electrical costs are unknown at this time. Minimum space required would be 150 sq ft at a current cost of $6.24 per sq ft or | $ 936 | |
| f. | Total cost Alternative IV | | $203,876. |

(Alt IV Contd)

6. USE OF VENDOR SYSTEM

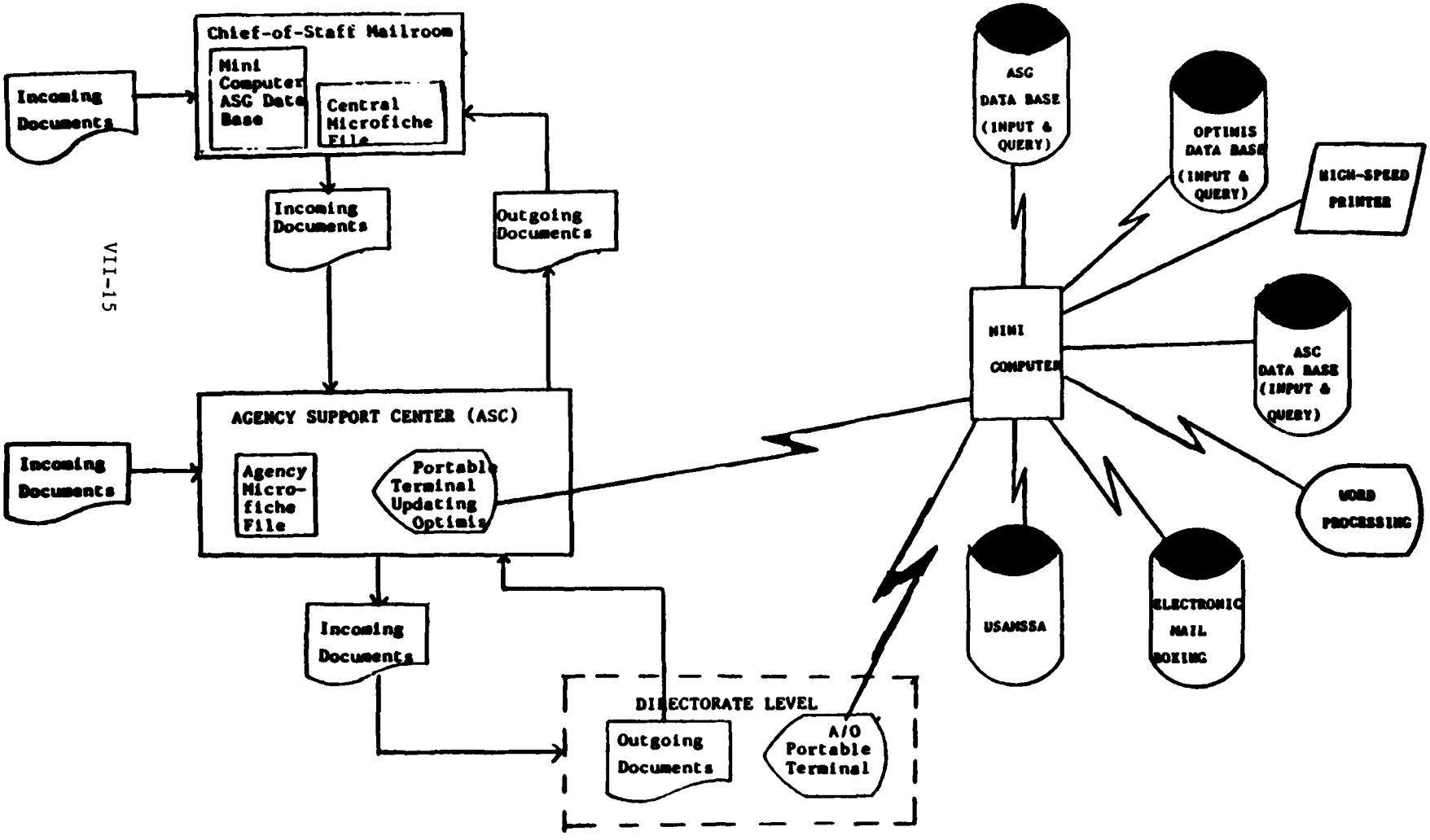
a. ADVANTAGES

(1) Provide up to 64 communication ports
(2) Can provide electronic mail, high speed printer, connection to multiple computers, security, compatibility with multiple word processors.
(3) Maintenance provided and short lead time installation.
(4) Adapts to technology.
(5) Adapts to networking.
(6) Can be used as interface between word processing, micrographics, microprocessors, reprographics and mainframe computers (USAMSSA & MILPERCEN)

b. DISADVANTAGES

(1) Requires operational support (3 personnel).
(2) Needs a controlled environment and space to operate.
(3) System could be costly and the expense would not be warranted for short (1 year) test.

## ALTERNATIVE IV - VENDOR CONTROLLED



## ALTERNATIVE V - TIME SHARING SYSTEM

1. The Agency Support Center (ASC) data base, word processing stations/storage, and electronic mailboxing could be supported on a time sharing computer.

2. All incoming/outgoing documents would be processed through a control desk located in the agency mailroom. At that desk, control numbers would be assigned and selected data entered electronically into a data base.

3. The documents would then be microfiched using a microfiche camera/duplicator located in the mailroom. The microfiche would be filed in an agency central file also located in the mailroom.

4. To query the data base, an AO would use either a dialup portable terminal or communicating word processors. The information received would direct the AO to the microfiche file containing the required document where upon request a copy or an abstract of the document could be provided.

5. COST

a. Time Sharing Companies.

Battelle Labs Columbus Ohio (Verbal Proposal) (Electronic Mail Package Only)
(1) Modify TASS (TAGCEN Administrative Support System) - $10,000
(2) Provide 28 ports on their computer - $3-$5K per mo

DIALCOM
(1) Minimum monthly interactive - $25.00
(2) Unlimited time - $875.00 per month
(3) Mass storage - $.50/1.00...1000 characters per month

Bowne Time Sharing
(1) Minimum monthly interactive - $150.00
(2) Mass Storage - $.28...1550 characters per month

b. Micrographics

| | |
|---|---|
| Camera maintenance per yr | $ 3,036 |
| Film cost 63,440 documents per yr | |
| 62,000 master microfiche @ $.40 per | $ 24,800 |
| 20,000 duplicate microfiche @ $.07 per | $ 1,400 |

c. Portable terminals - Require lease 30 @ $97 each per month $2,910. Annual lease would be $ 34,400

(Alt V Contd)

4. USE OF TIME-SHARING

a. ADVANTAGES

(1) Electronic mailboxing & bulletin board capability
(2) Multiple access to data base
(3) Unlimited document & updating capability
(4) No maintenance, operational facilities or personnel to operate.
(5) Able to purchase software if needed in future
(6) Includes training

b. DISADVANTAGES

(1) Lose control of the data base
(2) Storage offsite

## ALTERNATIVE VI - RECOMMENDATION

A. ASG/OPTIMIS SYSTEMS (Document Control and Storage)

1. The Chief of Staff ASG mailroom personnel will process incoming documents for ODCSPER and forward them to the ODCSPER mailroom. All incoming documents to the ODCSPER mailroom or documents received within directorates, must be routed to the control desk in the Agency Support Center. There the documents will be assigned control numbers, document data (Subject, From, To, Synopsis, Date, etc.) will be electronically entered into the ASG data base, and microfilmed for the agency central file.

2. As a part of this recommendation, a control desk or information specialist position must be established in the mailroom. This position should be occupied by an individual with some experience in data base management, with knowledge of the inner workings of ODCSPER and able to make decisions on the data and paper flow of ODCSPER.

3. All outgoing documents must be sent to the ASC control desk. Either the signed copy for fowarding to the Chief of Staff mailroom (reply to action), the signed copy for mailroom distribution, or a carbon copy of a document mailed directly from the directorate.

   a. The ASC will assign control numbers to each piece of outgoing material unless it is in response to an action originally received , in which case a control number would previously have been assigned.

   b. If not, the control desk will key in the data required for the ASG data base and microfiche the complete document for the agency central file.

4. The present ASG inquiry system is accessed through the use of hard wired computer terminals. Therefore, to support the extension of ASG to ODCSPER, OSA should arrange the funding and installation of 6 computer terminals to be located and distributed as follows: 1-Hqs., 1-Mgmt Spt and 1 for each directorate. Later consideration should be given for possible add-on of 2 additional terminals in each directorate depending on geographical location of divisions within the directorate or the amount of inquiries to the data base.

5. The existing OPTIMIS System will continue to be used as the primary research tool for the action officer. It will serve as the index to completed actions processed through the ASG System as well as an index to many other information sources.

(Alt VI Contd)

6. COST.

a. OSA Funded - Option 1.

(1) Six (6) hard-wired computer terminals with communication devices. $33,000 (per unit $5,500 X 6).

(2) Microfiche camera and duplicator total cost $30,000.

(3) Automated storage & retrieval device. Total cost $60,000.

b. ARSTADS Funded - Option 2.

(1) Microfiche camera/duplicator.
Transfer from OPTIMIS to ODCSPER mailroom.
Camera maintenance per yr $ 3,036

(2) One small retrieval microfiche unit for the agency central file at a cost of $1,000 for a small manual system, up to approximately $10,000 for a small automated system.

c. Film cost 63,440 documents per yr
62,000 master microfiche @ $.40 per $ 24,800
20,000 duplicate microfiche @ $.07 per $ 1,400

d. If para 6a above materializes, there will only be a supply cost (para c) to ARSTADS to implement ASG. If not, it is estimated that the costs outined in 6b and 6c above, would be approximately $40,000 for storage and retrieval, supplies and maintenance.

B. TIME-SHARING Electronic Mail Package. The test of electronic mail will be a two part effort. It will use the electronic mailbox feature available from a time share source in the following manner:

1. In-House Effort. Extend the capability of an electronic mail system for communication and correspondence purposes. The recommended plan is to place a computer terminal in DCSPER's office, Management Support, each director's office and 3 FOAs (i.e. MILPERCEN, TAG, and possibly USMA), for testing the use of electronic mail.

(Alt VI Contd)

2. Survey Effort. Establish a mail box system to support the Manpower Survey and Standards Branch CONUS-wide. This office is conducting a test of the functional manpower requirements determination process for TDA activities. Benefits to the Survey & Standards Branch include:

a. Direct/timely communications with POC and team leaders during the preliminary planning stage to effectively coordinate travel, administrative and technical issues.

b. A communication medium unconstrained by different time zones during the on-site data collection phase.

c. Simultaneous distribution of technical and policy decisions.

d. Direct/timely communications to team leaders at MACOM/installations during standards development stage to resolve questions related to data collected.

e. Reduced time required for formal coordination with MACOMs on specific issues prior to study finalization and decision.

3. SUPPORT.

a. Mail Box Ports 20 available
(1) In-house effort - 9.
(2) Survey effort - 11 ports (1 HQDA 10 CONUS elements).

b. Terminals.
(1) In-house. Use communication terminals or portable terminals on hand.

(2) Survey Effort. Would require additional portable terminals to support this effort. Distribution would be as follows:
1 unit for HQ office of study.
6 units for survey team to use while on TDY.

(Alt VI Contd)

4. COST.

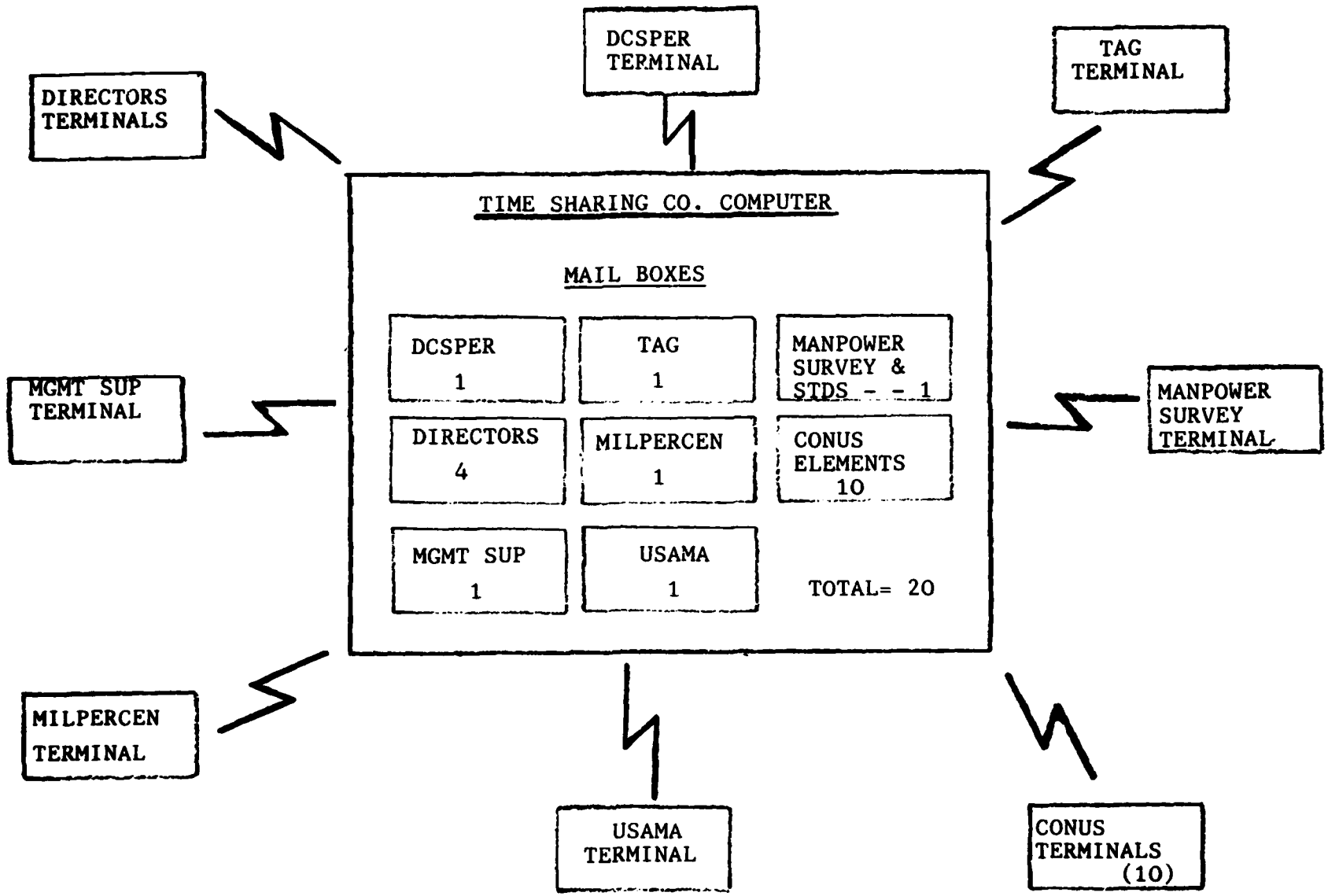
a. Terminals - requirement is for 6 additional terminals at a lease cost of $97 each per month or a total of $582. Annual lease is $6984 per year.

b. Acquire 20 ports on a time share computer - $3-5K per mo.

c. Possible cost of long distance calls for each inquiry.

d. Total 1st year cost approximately - $70,000.

ALTERNATIVE VI- Time Sharing



## ARSTADS ADP IMPLEMENTATION PLAN FOR ODCSPER

1. Establish the ODCSPER mailroom as the ARSTADS Agency Support Center (ASC). The mailroom presently has a computer terminal to support the ASG system. This would decrease the amount of training of control personnel for using the ASG system.

2. Move the Microfiche source document camera and duplicator to the mailroom from the OPTIMIS control area. Conduct maintenance and test the equipment to insure it is operating properly.

3. Train personnel in the mailroom on the operation of the ASG system and establish procedures, data bases, and the microfiche inquiry data base.

4. Establish the control desk and information specialist position in the mailroom. Train the individual in the use of the ASG system and set up the micrographic system and central file.

5. Install hard-wire terminals in the directorates and train the individuals who will use the terminals.

6. Insure that proper procedures are being followed for entries into the ASG data base.

7. Test electronic mail for agency using a time sharing system.

# ANNEX A

# TO

# VOLUME II

# ODCSPER SURVEY PLAN

ANNEX A to VOLUME II

## ODCSPER SURVEY PLAN

1. DISCUSSION.

a. Background. The ARSTADS study surfaced some general problem areas with administrative support across the HQDA Staff. There is a need to further define and validate those problems within a staff agency. The agency selected is ODCSPER.

b. Problem. Initial survey efforts concluded that an integrated system is required to assist HQDA action officers and agency heads in the exchange of vital information, to provide a document index/file of essential papers and to increase administrative support effectiveness through improved use of personnel, procedures and equipment.

2. OBJECTIVES. The objectives of this plan are to:

a. Provide for the conduct of detailed management surveys within ODCSPER.

c. Flowchart the current system.

d. Validate and define the specific requirements for administrative support within ODCSPER.

e. Design and flow-chart the proposed system(s)

f. Provide alternatives, costs and equipment requirements for the proposed system(s).

g. Provide information necessary to develop a detailed test plan.

3. LIMITATIONS. The following limitations are understood in the conduct of these surveys:

a. Personnel requirements will not exceed that currently authorized in the surveyed agency.

b. The sequence of the conduct of surveys within ODCSPER elements will be as determined by the agency in coordination with the ARSTADS group.

4. ESSENTIAL ELEMENTS OF ANALYSIS. Scope of the analysis will include, but not be limited to the following:

a. Requirements Definition.

(1) Survey and flowchart of current procedures and work flow in ODCSPER.

(2) Determine cost of current operating system.

(3) In-depth survey to define user needs-- management, action officers and administrative support personnel.

b. Systems Design.

(1) Are procedures and document flow smooth?

(2) Can flow process and procedures be standardized? Automated?

(3) What, if any, administrative data base requirements exist? Do existing data elements meet current user needs? Can a standard data base be developed to meet requirements? Do requirements exist for use of other information sources?

(4) To what extent does current equipment base accommodate anticipated needs?

c. Equipment Selection.

(1) What equipment is available now or in immediate future?

(2) Which equipment meets systems requirements?

5. METHODOLOGY. The survey will be conducted as follows:

(Detailed milestones are at TAB A).

a. Data collection.

b. Data analysis.

c. Requirements definition.

d. Systems design.

e. Equipment selection.

f. IPR.

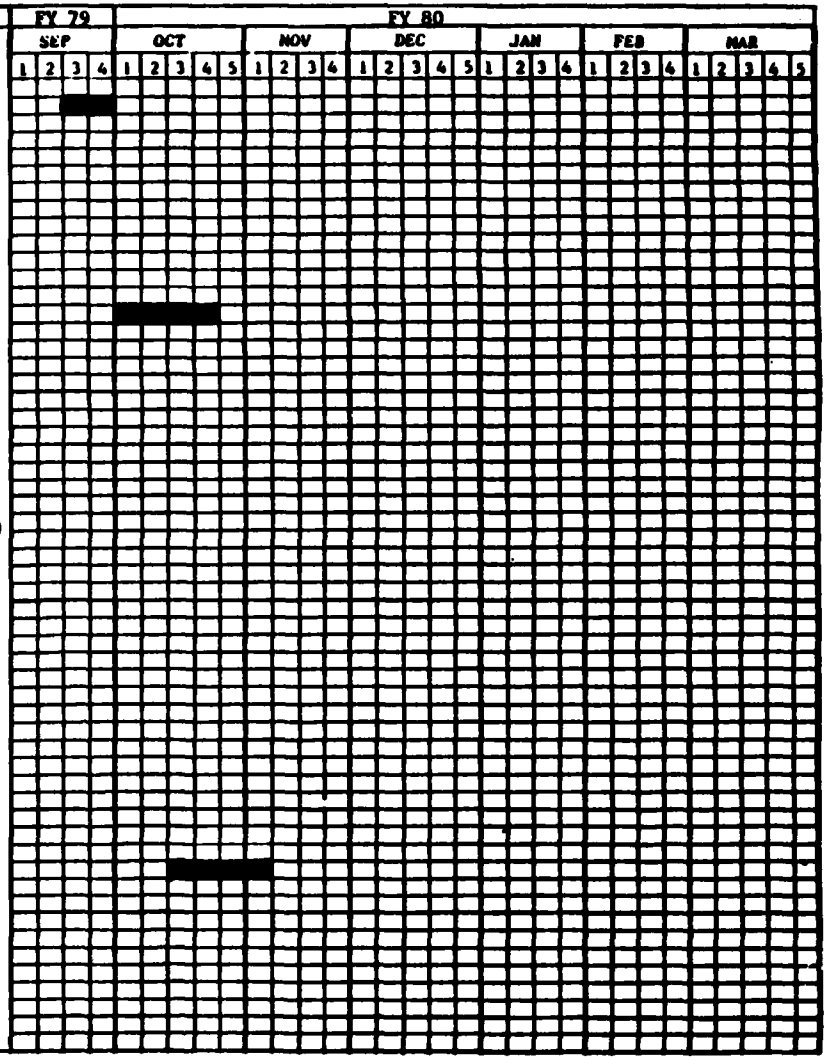
6. RESPONSIBILITIES. DA Memo 340-10 is still in effect. This plan contains steps required to complete PHASE I of ARSTADS effort.

7. ADMINISTRATION. See DA Memo 340-10

TAB A - Survey Milestones

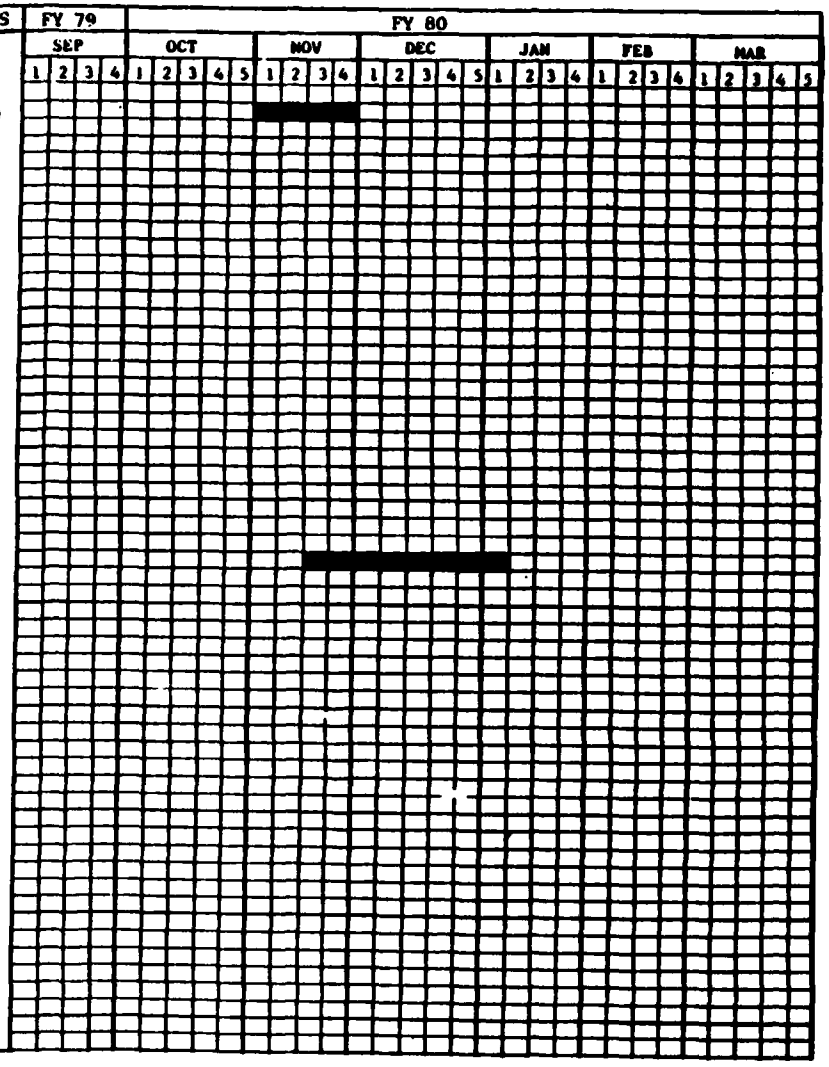
## PHASE I: DETAILED ODCSPER SURVEY PLAN

| ACTIVITY | DAYS |
|---|---|
| 1. PRELIMINARY ORGANIZATION | 10 |
| 1.1 Meet with Admin Officer, ODCSPER | |
| 1.2 Select ODCSPER POCs | |
| 1.3 Brief POCs | |
| 1.4 Finalize detailed plan | |
| 1.5 Brief ODCSPER top management | |
| 2. DATA COLLECTION | 20 |
| 2.1 Prepare survey sheet | |
| 2.2 Conduct survey briefings | |
| 2.2.1 Managers | |
| 2.2.2 Action Officers | |
| 2.2.3 Administrative Support | |
| 2.3 Conduct survey | (10) |
| 2.4 Collect data | |
| 2.5 Tally data | |
| 2.6 Prepare interview sheets | |
| 2.7 Conduct interviews | |
| 2.8 Tally interview data | |
| 2.9 Flowchart Current System | |
| 2.10 Cost Current System | |
| 2.11 Document data collection | |
| 2.12 IPR - ODCSPER | |
| 3. DATA ANALYSIS | 20 |
| 3.1 Analyze survey results | |
| 3.2 Analyze interview results | |
| 3.3 Analyze current system | |
| 3.4 Document analysis (conclusions) | |
| 3.5 IPR - ODCSPER | |



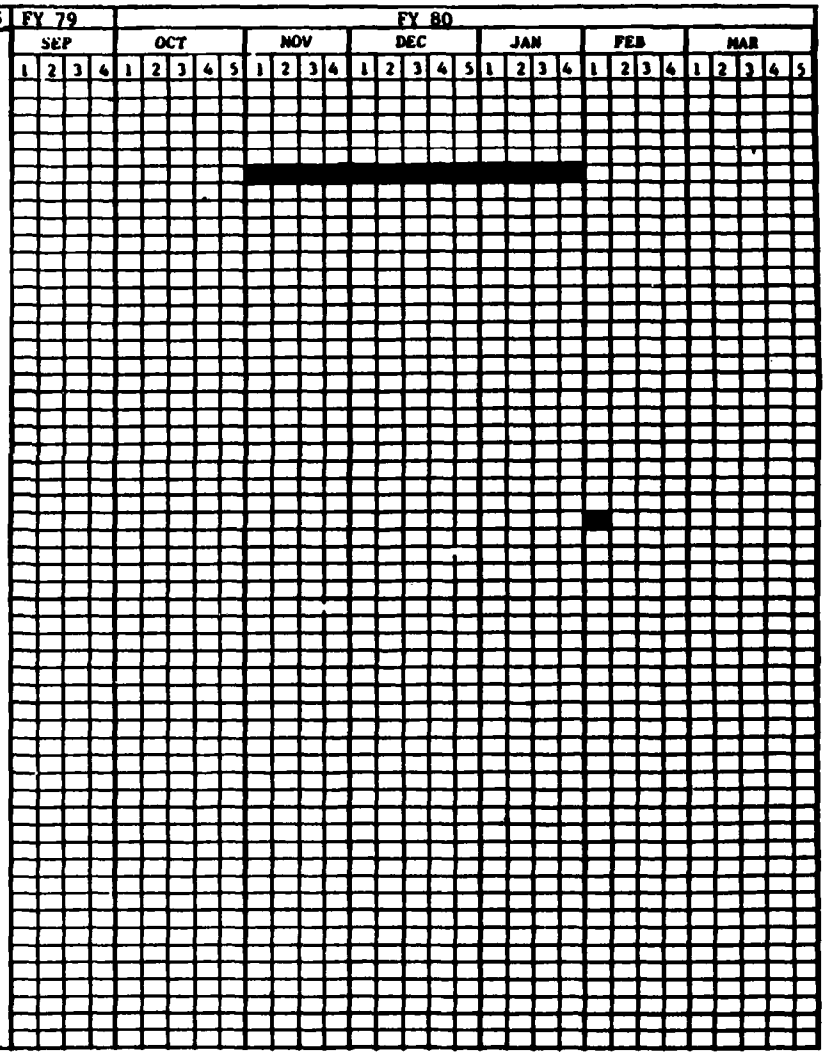
## PHASE I: DETAILED ODCSPER SURVEY PLAN

| ACTIVITY | DAYS |
|---|---|
| 4. REQUIREMENTS DEFINITION | 20 |
| 4.1 Define problem areas | |
| 4.2 Define constraints/limitations | |
| 4.3 Brief/coordinate ODCSPER personnel | |
| 4.3.1 Managers | |
| 4.3.2 Action Officers | |
| 4.3.3 Administrative Support | |
| 4.4 Define system objectives | |
| 4.5 Define system requirements | |
| 4.6 Prioritize requirements | |
| 4.7 Define measurement criteria | |
| 4.8 Document requirements definition | |
| 4.9 IPR - ODCSPER | |
| 5. SYSTEMS DESIGN | 40 |
| 5.1 Design test system | |
| 5.2 Flowchart overall system | |
| 5.3 Prepare alternative system solutions | |
| 5.3.1 Draft flowchart | |
| 5.3.2 Outline procedures | |
| 5.3.3 Cost alternative system | |
| 5.4 Brief/coordinate ODCSPER personnel | |
| 5.4.1 Administrative Support | |
| 5.4.2 Action Officers | |
| 5.4.3 Managers | |
| 5.5 Select test systems | |
| 5.6 Document test systems | |
| 5.6.1 Finalize test systems flowchart | |
| 5.6.2 Finalize test systems procedures | |



PHASE I: DETAILED ODCSPER SURVEY PLAN

| ACTIVITY | DAYS |
|---|---|
| 5.6.3 Cost test systems | |
| 5.7 IPR - ODCSPER | |
| 6. EQUIPMENT SELECTION | 65 |
| 6.1 Conduct market surveys | |
| 6.1.1 Prepare data sheet | |
| 6.1.2 Begin survey | |
| 6.1.3 Analyze surveys | |
| 6.2 Identify equipment meeting systems require | |
| 6.3 Brief/coordinate ODCSPER personnel | |
| 6.3.1 Managers | |
| 6.3.2 Action Officers | |
| 6.3.3 Administrative Support | |
| 7. GENERAL OFFICER IPR | 5 |
| 7.1 Prepare IPR | |
| 7.2 Conduct IPR | |



ANNEX B

TO

VOLUME II

AGENCY QUESTIONNAIRE

ANNEX B to VOLUME II

## AGENCY QUESTIONNAIRE

All personnel will complete Section I, GENERAL. Circle only one answer for each multiple choice answer.

### SECTION I

### GENERAL

1. Which of the following categories best describes your duties?

   A. Management (e.g., division chief, branch chief, team leader)
   B. Action Officer
   C. Administrative Support/Clerical

2. What is your organization? (agency - division office symbol)

   — — — — - — — —

3. Are you military or civilian?

   A. Military
   B. Civilian

4. How long have you worked in your agency?

   A. Less than 6 months
   B. 6 to 18 months
   C. 18 to 36 months
   D. Over 36 months

5. Do you have easy access to regulations, SOP's or other policy documents necessary for the completion of your assigned actions?

   A. Yes
   B. Somewhat easy
   C. No

6. Is sufficient and proper office equipment available to meet daily requirements (e.g., typewriters, copiers, calculators)?

   A. Yes
   B. Somewhat sufficient
   C. No

7. Are internal suspense times realistic?

   A. Always
   B. Usually
   C. Seldom
   D. Never

8. Are you required to work overtime for "what if" or "contingency" type situations?

   A. Always
   B. Usually
   C. Seldom
   D. Never

9. Do you feel your working environment (includes space, lighting, arrangement, ventilation, etc.) is adequate?

   A. Yes
   B. Somewhat adequate
   C. No

   If no, briefly explain why.

10. Are your copying requirements satisfied in a timely manner?

   A. Yes
   B. Somewhat timely
   c. No

11. From the followling list, select the obstacle that most often delays completion of staff actions. Check only one please.

   A. Internal agency coordination
   B. Lack of guidance
   C. External (outside agency) coordination
   D. Unrealistic suspense
   E. Lack of adequate administrative support
   F. Insufficient delegation of authority
   G. Excessive review levels
   H. Overly formal internal procedures
   I. Misassigned actions
   J. No major obstacles

12. If suspense times are unrealistic, what office usually causes this situation?

   A. Agency head
   B. Directorate
   C. Division
   D. Outside agency
   E. Suspense times are realistic

13. Do you feel you have adequate time to think through and prepare an action?

    A. Always
    B. Usually
    C. Seldom
    D. Never

14. Are actions unnecessarily delayed due to insufficient typing support?

    A. Yes
    B. Somewhat
    D. No

15. Do you maintain a copy of incoming/outgoing correspondence?

    A. Always
    B. Usually
    C. Seldom
    D. Never

16. Are new methods of operation, new procedures or changes in management style accepted by personnel in your office?

    A. Always
    B. Usually
    C. Never
    D. Not applicable

17. Do you use a computer terminal?

    A. Yes
    B. No

18. If Yes, is it a --

    A. Portable terminal (TI Silent 700)
    B. Hard-wireterminal in your office
    C. Hard-wired terminal in another office.

19. How many hours a week do you use it? _____ hrs/week

20. What type of typewriter do you use?

    A. Manual
    B. "Selectric" type electric (golf-ball typing element)
    C. Other electric
    D. MTST
    E. Mag card
    F. Mag tape
    G. Other word processor
    H. I do not use a typewriter

21. Do you like the typewriter you presently have?

A. Yes
B. No
C. I do not have a typewriter

22. During the last six months, how many times did the typewriter you have on your desk need repair, malfunctioned, or didn't work at all?

A. None, I have had no problems with my typewriter.
B. 1 to 2 times
C. 3 to 5 times
D. 6 or more times
E. I do not have a typewriter

IF YOU SELECTED "A" OR "B" TO QUESTION 1 ABOVE --

COMPLETE SECTION II

IF YOU SELECTED "C" TO QUESTION 1 ABOVE --

COMPLETE SECTION III

## SECTION II

## ACTION OFFICERS

This section is to be completed by all personnel selecting "A" or "B" to question 1 in SECTION I.

1. Do you perform administrative functions which you feel should be a requirement of support personnel (filing, typing, telephone answering, copying, etc.)?

   A. Yes
   B. No

2. Which one of the following is the method you most frequently use in submitting material for draft or final typing?

   A. Longhand
   B. Machine dictation
   C. Typed draft
   D. Stenographer

3. Are you receiving adequate turnaround from draft or final typing submissions?

   A. Yes
   B. Somewhat adequate
   C. No

4. Are you permitted to make pen and ink corrections to internal HQDA correspondence?

   A. Yes
   B. No

5. Which of the following files do you most often refer to in responding to actions?

   A. Your own desk or file drawer
   B. Office centralized files
   C. Files outside your office

6. Do you use outside sources for researching information to complete an action (e.g., Army Library, OPTIMIS, etc.)?

   A. *Quite Often*
   B. Infrequently
   C. No

If Yes, indicate the one you most frequently use ...

A. Army Library
B. OPTIMIS
C. Other agency files
D. Other services (AF, Navy) files
E. Other (specify) _____

7. Do you presently use microforms?

A. Yes
B. No

8. Have you ever used microforms before?

A. Yes
B. No

9. Is microform considered as an acceptable form for research or backup files by you?

A. Yes
B. Somewhat
C. No

10. Do you receive satisfactory secretarial/administrative support?

A. Always
B. Usually
C. Seldom
D. Never

11. Do you allow white-out or neat erasures on documents typed in final form?

A. Yes
B. No

12. On an average, how many task related actions do you process per month?

A. Less than 5
B. 6-15
C. 16-25
D. More than 25

13. Do you permit your administrative support personnel to correct grammar or edit your material?

A. Yes
B. No

14. Are you required to have your action papers retyped for aesthetic, editorial or administrative reasons during internal-agency coordination?

A. Always
B. Usually
C. Seldom
D. Never

15. Is accurate, timely information available to assist you in completing your assigned tasks?

A. Yes
B. Somewhat
C. No

16. How many reviews (including both supervisory and administrative) are required to process an action from you to the agency head?

A. One
B. Two
C. Three
D. Four
E. Five or more

17. Do you receive information copies in excess of your requirements?

A. Yes
B. No

18. If you process joint actions, what do you consider the largest problem?

A. Lack of guidance.
B. Lack of knowledge of Army position.
C. Insufficient research material.
D. More emphasis on form than substance
E. Other.
F. No special problems.
G. Not applicable.

19. Are you satisfied with the general quality of typing?

A. Always
B. Usually
C. Seldom
D. Never

20. Is the quality of editing and proofreading acceptable?

A. Always
B. Usually
C. Seldom
D. Never
E. Not Applicable-My Secretarial Support Does Not Do Editing Or Proofreading

21. If you have one recommendation to make to the agency head regarding internal administrative support procedures, what would it be?

DID YOU ANSWER QUESTION 1 IN SECTION I "A" OR "B"? YES___ NO___

DID YOU COMPLETE SECTION I AND II? YES___ NO___

IF YOU CHECKED "YES" TO BOTH QUESTIONS, THEN PLACE THIS COMPLETED QUESTIONNAIRE IN THE ATTACHED ENVELOPE, SEAL IT AND RETURN TO YOUR DIRECTORATE POC.

Responses to this questionnaire are anonymous, however, if you wish to discuss any item with the TAG survey team, please include your name and phone number. All information will be held in strict confidence.

THANK YOU FOR YOUR COOPERATION

## SECTION III

### A MINISTRATIVE SUPPORT/CLERICAL

This section is to be completed by all personnel selecting "C" to question 1 in SECTION I.

1. Do you retype material for aesthetic, editorial or administrative reasons for internal agency papers?

   A. Yes
   B. Sometimes
   C. No

2. Are you permitted to make pen and ink corrections to internal HQDA correspondence?

   A. Yes
   B. No

3. Do you do research for action officers (using telephone, files, library)?

   A. Always
   B. Usually
   C. Seldom
   D. Never

4. Do you maintain a log of incoming/outgoing actions?

   A. Yes
   B. No

5. Are you allowed to edit drafts you type for action officers?

   A. Yes
   B. No

6. Do you have backup support to perform your duties when you're absent?

   A. Always
   B. Usually
   C. Seldom
   D. Never

7. Do you type for ...

   A. 1 person
   B. 2-5 persons
   C. 6 or more persons

8. Do you have a correspondence guide available?

   A. Yes
   B. No

   If yes, do you use it?

   A. Quite often
   B. Infrequently
   C. No

9. Do you ever have a backlog of work to be typed?

   A. Always
   B. Usually
   C. Seldom
   D. Never

10. Do you have time for good proofreading?

   A. Always
   B. Usually
   C. Seldom
   D. Never

11. Have you been provided training for your job?

   A. Yes
   B. Somewhat
   C. No

12. Have you ever used word processing-type equipment (e.g., MTST, mag card, mag tape, floppy disk, memory typewriters)?

   A. Quite often
   B. Infrequently
   C. No

13. Do you use any word processing equipment now?

   A. Quite often
   B. Infrequently
   C. No

14. Would you like to see word processing equipment made available to you at ...

   A. Your desk
   B. Division level
   C. Directorate level
   D. Word Processing Center

15. Do you prepare draft replies to routine actions?

A. Quite often
B. Infrequently
C. No

16. If you have one recommendation to make to the agency head regarding internal administrative support procedures, what would it be?

DID YOU ANSWER QUESTION 1 IN SECTION I "C"? YES___ NO___

DID YOU COMPLETE SECTION I AND III? YES___ NO___

IF YOU CHECKED "YES" TO BOTH QUESTIONS, THEN PLACE THIS COMPLETED QUESTIONNAIRE IN THE ATTACHED ENVELOPE, SEAL IT AND RETURN TO YOUR DIRECTORATE POC.

Responses to this questionnaire are anonymous, however, if you wish to discuss any item with the TAG survey team, please include your name and phone number. All information will be held in strict confidence.

THANK YOU FOR YOUR COOPERATION

ANNEX C

TO

VOLUME II

TIME/TYPING

SURVEY FORM

## TYPING SURVEY

| OFFICE CODE | PERSONAL CODE | SURVEY DAY |
|---|---|---|
| | | |

PLEASE PRINT CLEARLY

| MACHINE USED | GOES TO | HOW DONE | KIND OF WORK | ARRIVED HOW | SPEED | CLASSIFICATION | PAGES | | DISPOSITION | NUMBER OF LINES | | | NUMBER TIMES TYPED | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
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| MACHINE USED | GOES TO | HOW DONE | KIND OF WORK | ARRIVED HOW | SPEED | CLASSIFICATION | PAGES | | DISPOSITION | NUMBER OF LINES | | | NUMBER TIMES TYPED | |
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C-1

TELEPHONE NUMBER_____

## TIME SURVEY

9

| (A) TYPING | (B) DICTATING, GIVING OR TAKING SHORTHAND | (C) EDITING AND PROOFREADING | (D) COPYING AND COLLATING |
|---|---|---|---|
| (E) FILES | (F) ANSWERING PHONE FOR OTHERS | (G) RECEPTIONIST DUTIES | (H) ADMINISTRATIVE AND CLERICAL |
| (I) HANDLING MAIL | (J) TRAVEL ARRANGEMENTS, VOUCHERS | (K) HANDCARRY PAPERS | (L) ERRANDS |
| (M) WRITING MATERIAL (LONGHAND) | (N) RESEARCH | (O) MEETINGS | (P) OTHER WORK |
| (Q) WAITING FOR WORK | (R) TIME OFF | (S) UNPAID OVERTIME | (T) PAID OVERTIME |

ARSTADS SURVEY TEST FORM

# DEFINITIONS -- TYPING SURVEY

## (LEFT SIDE OF FORM)

1. **MACHINE USED** -- Enter the code letter corresponding to the type of machine used to type the document. Some persons use machines other than the one at their desk. This information will help us identify machine utilization, regardless of which person used it.

2. **GOES TO** -- (Destination) Enter the code letter corresponding to the level of the addressee on the document. If material is typed for an action officer for his use (e.g., vugraphs, briefing papers) enter "V" for Division.

3. **HOW DONE** -- Original typing is typing done for the first time by a typist (even if the author typed a draft). Minor Editing indicates pages retyped because of restarts, typographical errors, or 4 lines or less changed or revised in the text. Major Editing is more than 4 lines changed in the text. Repetitive refers to repeated typing of the same material with very small changes (e.g., changing addressees only in a standard letter).

4. **KIND OF WORK** -- Indicate kind of document as shown in block on following page. The length and type of document will indicate the type of system that might be of most benefit to you.

5. **ARRIVED HOW** -- The medium through which the material reached the typewriter. If you prepared the material yourself, enter "G" for self-generated.

6. **SPEED** -- The priority or urgency placed on the document by the author. "When you have time" or over one working day is Low Priority; two to eight hours is Normal; less than two hours is Rush.

7. **CLASSIFICATION** -- Indicate the security classification of the document you are typing. "N" indicates unclassified; "C" indicates FOUO, Confidential or Secret; "T" indicates Top Secret or higher.

8. **PAGES** -- Enter the total number of pages of the document typed. If the document is 1½ pages in length, enter "02". Count only the pages you typed or retyped (e.g., if you retyped 6 pages of a 30-page document, enter "06").

9. **DISPOSITION** -- Show if the document is going to any of the dispositions mentioned. If it is unknown or somewhere else, mark "0" (unknown). If there is more than one disposition, put down the highest number that applies. Example: a document to be printed and then mailed will be marked "9" (Printing).

10. **LINES** -- Measure the number of lines in the document with the transparency sheet you have received and put the number in the spaces provided.

11. **TIMES** -- This space is a convenience for the word processing operator or typist of a repetitive job. On any single document it will be "01." If 20 similar letters are typed, mark the number of lines and pages for one letter, then put "20" in the "times" space.

# DEFINITIONS -- TIME SURVEY

## (RIGHT SIDE OF FORM)

A. **TYPING** -- Enter actual time for all typing, including setup, correction of errors, put away or clean up time.

B. **DICTATING OR TAKING SHORTHAND** -- Time spent dictating to a stenographer or time a stenographer takes dictation.

C. **EDITING AND PROOFREADING** -- Time spent reviewing typed documents for errors.

D. **COPYING AND COLLATING** -- Time spent copying and assembling documents. This includes walking to a copier, waiting in line, collating, punching, stapling and assembling documents.

E. **FILES** -- Time spent creating, searching and posting office files. This includes typing folders, retrieving and refiling files.

F. **ANSWERING PHONE FOR OTHERS** -- Time spent answering calls intended for others and taking messages or referring the calls.

G. **RECEPTIONIST DUTIES** -- Time spent in receiving or greeting visitors and escorting or directing them. This includes "watching the office" for other offices.

H. **ADMINISTRATIVE AND CLERICAL** -- Time spent in office administrative and clerical tasks, such as requisitioning supplies, filling out personnel forms, doing time cards, arranging conferences, filling out this survey.

I. **HANDLING MAIL** -- Time spent picking up, handling, opening, sorting, stamping, distributing mail.

J. **TRAVEL ARRANGEMENTS AND VOUCHERS** -- Time spent arranging travel, including documents requesting travel, and time spent filling out payment vouchers.

K. **HAND-CARRY PAPERS** -- Time spent personally distributing papers outside your office.

L. **ERRANDS** -- Time spent on errands other than copier, mail or handcarrying of papers. This would include going to the supply room, running errands for others.

M. **WRITING OUT MATERIAL (LONGHAND)** -- Time you spend writing any type of material for typing.

N. **RESEARCH** -- Time spent searching for information, including management and statistical reports.

O. **MEETINGS** -- Time spent in official meetings and conferences, not including travel time.

P. **OTHER WORK** -- Activities which do not fall under any of the other categories. For technicians, executives and others, this can be a large category.

Q. **WAITING FOR WORK** -- Time spent waiting for instructions, other personnel to be free, waiting during slack periods.

R. **TIME OFF** -- Any time not spent on professional and administrative duties. This includes coffee breaks, visiting and longer than scheduled lunch breaks. Also includes attendance at official ceremonies and awards, office parties, going-away luncheons, formal training sessions and other official and nonofficial absences. Include vacation and sick time.

S. **OVERTIME (UNPAID)** -- Actual time spent working beyond normal duties hours, for which you do not receive additional pay or compensatory time.

T. **OVERTIME (PAID)** -- Actual time spent working beyond normal duties hours, for which you are paid overtime rates or receive compensatory time.