

LIBRARY  
CONSULTANTS  
SURVEY  
1957

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**CENTRAL INTELLIGENCE AGENCY  
WASHINGTON 25, D. C.**

May 18, 1957.

Memorandum to: Mr. Robert Amory, Jr., DD/I

From: [redacted]

Consultants

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Subject: Personnel

The staff of OCR and all others with whom your Consultants have worked during the preparation of their study have been most cooperative. They are nice people, industrious and willing to do a good job. Lack of leadership is clearly responsible for a large part of the state of affairs reported in this study. Another factor is failure to fit the person to the job in a good many cases. There are jobs for which specialized training and experience are necessary. These can not be performed adequately or efficiently without specialized background no matter how willing the staff is to do so. There is some misassignment of staff; people trained to do professional library work are doing or supervising routine operations. There are a few cases in which staff are misassigned in terms of their native ability, quite apart from their training. In other cases, people who are competent by training and temperament are prevented from doing a good job because of the failure of the top management of OCR to appreciate the need for an integrated job and failure to bring the policies and programs of OCR into a coherent and consistent operation. There are still other cases in which inbreeding in the Agency, despite minimum professional training and unusual ability, has limited the ability of key staff to develop effective programs.

The implications for the Agency top management of the Consultants' report appear to be obvious. There appears to be little that can be done about conditions found by your Consultants unless it is feasible to replace top management of OCR. This is difficult. No one from outside the Agency can step into any of the top two or three positions in OCR without considerable training in the special problems of the Agency. This means that if anything is to be done within the next couple of years it must be started with staff now on duty in the Agency. Your Consultants believe that temporary assignment [redacted] as Assistant Director/OCR and James G. Chandler as Deputy Assistant Director/OCR would make it possible to effect the reorganization proposed and to convert OCR into an integrated service-centered organization.

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[redacted] Executive Officer/OCR, is a brilliant and able young man. He is outstanding on all counts except for breadth of library experience. If he could be assigned for two years to act as assistant Librarian of one of the great university libraries of the country, he could

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25 January 1957

MEMORANDUM FOR: CIA Library Consultant Panel

SUBJECT : Specialized Library Needs of CIA


1. The CIA Library provides all forms of library service to CIA research components; provides many services to operational and administrative units of the Agency; provides limited services throughout the intelligence community and in a few instances to non-intelligence library users.

2. The basic services to CIA research components might be compared to those of any large research library. However, the subject fields in which service must be provided are as varied as in all but a few of the larger reference libraries. Demands are insistent that the service be prompt, complete, and authoritative, although these criteria are not of equal importance in every instance. Moreover, at times, the service must be on a "crash" emergency basis. In addition, CIA has a major problem in the tremendous flow of documents (cables, report, etc.) which libraries normally do not have to face in such proportions. These problems include speedy processing and proper indexing for subsequent recall of the information.

3. Library support to operational and administrative units frequently raises the problem of masking the interests of CIA. Procurement and accounting procedures must sometimes be modified, and recall of detailed information may be required for operational background in many areas where detailed research is not normally undertaken.

4. The attached statements indicate some of the specialized library needs of the individual offices and an outline terms of reference for your inquiry.

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Chairman  
Library Survey Committee

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TERMS OF REFERENCE

1. The present over-all organization of the CIA Library and its branch and special libraries:
  - a. Main Library
  - b. Branch Libraries:
    - i. Branch 1 (K Bldg)
    - ii. Branch 2 (Alcott Hall - OTR)
    - iii. Branch 3 (J Bldg - Medical)
    - iv. Branch 5 (Barton Hall - OSI)
    -
  - c. Special Libraries:
    - i. General Counsel
    - ii. Communications
    - iii. Historical Intelligence Collection
    - iv. Training (including those at special training facilities)
    - v. Logistics
    - vi. SR Division, DD/P
    - vii. FBID
2. Which of the above Branch and Special Libraries need be retained as separate collections in the new CIA building?
3. Present and prospective programs for inter-library cooperation in the IAC agencies.
4. What library facilities or services, not presently provided, should be added?
5. Is the periodical reading room adequate? Is there an adequate

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selection of periodicals? Would an adequate periodical room in the new Library cut down on duplication of purchases for individual analysts? (See also para. 10 e.)

6. The Accessions Process. Selection

- a. Is the present system of accessioning material as efficient as possible?
- b. Are the various components of the Agency properly and adequately represented in the selection process? Should all selection be centralized?
- c. How are Agency personnel made aware of the publication of new material?
- d. Is there a routine for eliciting suggestions for library purchases from the reader constituency?
- e. How are Agency personnel made aware of the accession of new material in the Agency? Do the offices receive timely notification of accessions in which they have an interest? Should notification of individual items be routed only to requesting components? Is the material sufficiently described?
- f. Should the Library publish an accessions list?
- g. Is there suitable Agency policy and procedures with respect to the accessioning of intelligence productions?
- h. Are the personnel who are authorized to approve the ordering of library material fully cognizant of their responsibility? Is it too easy to order material without question or presenting some justification?
- i. Do these selection and notification procedures satisfy the peculiar requirements of the training staff as to: (i) Specific selections for each course of instruction responsive to instructor research requirements (including examples of data) and informational gaps in the course reference material; and (ii) Publication of bibliographies and accessions lists of current materials reflecting significant modifications to the subject matter of the courses of study.

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1.
- m. Are additional arrangements necessary for procurement of Communist material?
- n. How much time elapses between arrival of material in CIA and its availability in the Library for customer request?
- o. What is the process and time factor of satisfying requests for retention copies of books, intelligence reports, and material produced by other agencies.
- p. Is there too much individual retention of Library material in offices, which can be reduced by the new Library?
- q. Should several copies of especially important material be procured to avoid unduly long waits when there are many requesters? Is this overdone?
- r. When material is superseded by later editions, is an automatic notification system desirable?
- s. Should certain offices be provided with petty cash for quick purchase of newspapers and periodicals?

7. Cataloging.

- a. Is the present cataloging system the best one? Is it economical?
- b. Is the rate of cataloging adequate?
- c. Is the Intelligence Subject Code adequate, and is it serving its purpose? Is it adequate for recall precision in intelligence research? What is its general acceptance in other agencies?
- d. Does the Intelligence Subject Code lend itself to a usable shelving procedure?
- e. Should the Intelligence Subject Code be broadened to include more abstract categories? Should it be used for documents only, and not for books?
- f. Is inclusion in the Intelligence Publications Index an adequate means of analytical cataloging?

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- g. How can the Agency cataloging system, which does not parallel the areas of instruction or identify the tradecraft subjects, reflect adequately the specific reference requirements of the teaching staffs? Can it cover the special Libraries? Can it cover the complexity of various types of material utilized by the Communications Library?
  - h. Should branch libraries be equipped with separate subject catalogues for books, if CIA continues to have branch libraries?
  - i. Should cataloging by subject of FBIS reports be resumed? Availability of old FBIS issues.
  - j. Should the shelf list and catalogue show locations of books in branch and special library collections?
8. Circulation. Inter-Library Loans.
- a. Is the circulation and recall system adequate? Are requests for Library materials promptly and adequately handled?
  - b. Are too many books lost?
  - c. Should control procedures be instituted for any books removed from Agency premises for use or study at an employee's residence?
  - d. Can arrangements be made whereby the Library may loan the most recent periodicals overnight with the provision that they be returned the next morning.
  - e. Should a system of fines be instituted?
  - f. What should be the extent of stack privileges?
  - g. Are the reading room facilities adequate? Should there be greater use of "reserve" book room techniques? Is there adequate work space in the reading room?
  - h. Should requests for library services and, in return, library materials for individuals in a component, be routed to a central control point in that component?
  - i. Should there be a procedure for cancelling the accountability of an individual analyst for indefinite loan books?
  - j. Are accountability procedures for books released on a permanent loan basis to individuals necessary? Could such books be expended for record purposes?

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- k. Is there a requirement to forward Library material overseas?  
Does any of it have to be sterile?
- l. Should a special file--or branch--be established to provide unclassified materials  25X1  
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- m. Is the Inter-Library Loan system timely and adequate?
- n. Should there be an extension of time for inter-library loans?  
(The two weeks' limit is currently reduced by the time required for the book to reach the reader.)
- o. Should books be returned to loaning libraries and re-issued, or could a system of renewals without returning the book be established?

## 9. The Reference Department.

- a. What is the desirable organizational relationship and level of library service in relation to other reference facilities?
- b. Are the reference and bibliographic collections adequate?
- c. Is appropriate and adequate reference service being rendered?
- d. Should there be specialization and specialized personnel in the reference staff? Are the reference personnel adequately conversant with Agency problems and needs?
- e. Should Branch Librarians who are responsible for a Branch Library of a technical nature be trained in that technical specialty in order to provide more definite support to specialized components?
- f. Are reference facilities outside the CIA Library adequately brought to bear upon reference problems?
- g. Could there be a closer coordination concerning available microfilmed doctoral dissertations at the Microfilming Division, University of Michigan?
- h. Does the Library publish sufficient accessions lists, indexes, research aids, papers, and annotated bibliographies to render a professional contribution comparable to other government and major research libraries?

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10. Machines.

- a. Are the various machine and reproduction facilities of the Library adequate and efficient?
- b. What is the routine time required to reproduce copies of material by the Library's reproduction processes?
- c. Can the delay in obtaining prints be held to a reasonable time? (Say 2 or 3 days?)
- d. Can the quality of reproduced prints be kept consistent? Is it good quality?
- e. Is it feasible to devote special equipment and qualified operators to obtaining legible reproductions from poor original documents?
- f. Do the Library runs include the most up-to-date publications or documents, including as much as possible those in cataloging or analyzing process?
- g. Should significant foreign language documents be microfilmed?

11. Agency's Branch Libraries.

- a. Should all Agency libraries come under the jurisdiction of the CIA Librarian?
- b. Should Training and other CIA components have independent libraries of their own?
- c. Will the requirements of OTR instructors and its Assessment and Evaluation Staff be served more adequately if these separate collections are located in the OTR area and maintained by librarians responsible to OTR:
  - (a) Foreign language grammars and dictionaries,
  - (b) Area knowledge text books and periodicals,
  - (c) Psychological and psychiatric books, periodicals and monographs,
  - (d) Reference texts in management and supervision.
- d. What advantages and disadvantages are there to the training activity if the librarians serving the OTR students are members of the Office of Training?

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- e. Are there reasons for the students of the OTR courses which will be in the building (part-time language, area knowledge, administration and clerical subjects) to have access to a separate reading room in the OCR area with reserved collections of multiple copies of books, periodicals, and instructional materials, classified and unclassified?
- f. In view of the fact that most OTR instructional programs will be conducted outside the new building [redacted] 25X1  
[redacted] is it a proper assumption that operation of library facilities at these sites is a proper responsibility of OTR?
12. CIA Library Personnel. 25X1
- a. Are there adequate library career service arrangements?
- b. Is there a proper blending of research background and formal library training in the Library personnel?
- c. How knowledgeable are the administrators of the CIA Library of the policies and requirements of Agency components?
- d. Are there sufficient basic library literature and current library periodicals maintained for professional background reading by the Library staff?
13. Are there adequate provisions for the retirement of infrequently used Library material?
14. Do CIA component libraries retire books through CIA Library facilities and procedures?
15. Are the users of the Library satisfied?
16. Are new employees throughout the Agency adequately introduced to the Library?
17. Is advanced training in the use of the Library available for those who intend to use the Library extensively?
18. Plans for the new Library.
- a. Do these plans include adequate plans for expansion?
- b. Are there adequate reading room facilities planned, including

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a periodical reading room and a "reserve" book room? (See also para. 10 e.)

- c. What changes in arrangements and operations should be planned for the new building?
19. Should archival materials of the Agency be maintained by the Library? If not, what should be the relationship between Library and Archives?

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REPORT OF THE LIBRARY CONSULTANTS

(18 May 1957)

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**CENTRAL INTELLIGENCE AGENCY  
WASHINGTON 25, D. C.**

18 May 1957

Mr. Robert Amory, Jr.  
Deputy Director of Intelligence  
Central Intelligence Agency  
Washington 25, D. C.

Dear Mr. Amory:

We are very pleased to submit herewith our report on the information activities of the Central Intelligence Agency, as we have been privileged to study them during the past 15 weeks.

We shall, of course, be glad to assist you further in the event you need amplification or clarification of any of the observations or recommendations made in this report.

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(18 May 1957)

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SUMMARY OF FINDINGS  
REQUIRING ACTION

MANAGEMENT (pp. 1-7)

1. OCR lacks an aggressive, creative philosophy with respect to its position in the Agency.
2. A clear policy on book acquisition is lacking.
3. OCR lacks the kind of leadership needed to make it a vital force in the intelligence community.
4. Too much time is spent keeping unnecessary records.

SPACE (pp. 8-10)

1. Compartmentation results in duplication of services and waste of effort on the part of the users of information.
2. Present space arrangements are unsatisfactory and satisfactory service is not provided in reasonable time.
3. The new building can provide space arrangements proper to the efficient management of a central reference service.
4. Plans submitted by the architects do not provide the desired space arrangements.
5. The architects plans are wasteful of space.
6. There is an attempt to keep within an office-type new building instead of planning space to meet functional needs.
7. Proper space is necessary to the implementation of the Consultants' recommendations.
8. An integrated reference operation is impractical unless proper space arrangements are provided.

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COLLECTION POLICY AND PROGRAM (pp. 11-17)

1. OCR collections are inadequate to meet the needs of the intelligence community.
2. Decision not to purchase needed books is frequently based on space and staff limitations.
3. The Agency staff has not participated actively in the selection of intelligence materials.
4. Insufficient funds are allocated to permit the development of an integrated intelligence collection.

ACQUISITION PROGRAM (pp. 18-44)

1. The Acquisitions Branch is limited to procurement functions and has no responsibility for selection activities.
2. The output of work per staff member in the Acquisitions Branch is lower by at least one third than that normally found in research libraries, including comparable acquisition jobs such as State Department Library.
3. Integration of the work  of the Acquisitions Branch should permit the handling of peak loads caused by crash situations without manning the unit for peak loads.
4. Full utilization of the cash purchase procedure is not made. An increase in the use of this procedure would result in a more economical and efficient operation.

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6. The procedure whereby user division funds are spent for the development of the OCR collections is impractical and cumbersome.
7. Economy mindedness has resulted in wasteful operations in the development of the book budget.
8. The Acquisitions Branch is engaged in activities which are duplicated in the Reference and Circulation Branches.
9. The collection of 20,000 books and periodicals maintained by the Acquisitions Branch is a duplication of services rendered by the Circulation and Reference Branches.
10. The total number of dollars spent for books, newspapers, and periodicals as additions to the OCR collections is low as compared to normal research libraries.
11. The book budget is not under the control of the Assistant Director, OCR, which is contrary to normal research library practices.
12. The collection and dissemination of enclosures to other Agency reports and despatches requires top-level administrative investigation and decision.

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CATALOGING OF BOOKS (pp. 45-51)

1. The workload in the Cataloging Section is low as compared to normal research libraries, and to a comparable library in the State Department which is also responsible for intelligence activities.
2. Under satisfactory working conditions, the Catalog Section could be reduced by 50 or 60 percent, or could handle 50 or 60 percent more work.
3. Cataloging is handicapped by the location of the Section and its relations to necessary tools.
4. There is inconsistency in the classification of books.
5. The cost of cataloging, per title, is excessive compared to normal research libraries.
6. The number of copies of catalog cards per title produced and disseminated is excessive as compared to normal research libraries.
7. The present-ISC cannot be applied uniformly to the classification of books and must be revised.

REFERENCE BRANCH (pp. 52-59)

1. The Information Unit is grossly overstaffed for the current workload.
2. Three-fourths or more of the work done in this Unit is routine reference work of the type done in normal, non-intelligence research libraries.
3. The total amount of service given is very low in relation to the number of analysts served and the nature of their work.

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4. There is too much use of untrained staff for work requiring professional competence.
5. The tools available to the Information Staff are inferior to those available in most reference libraries.
6. Analysts must maintain personal files on a large scale because library service is poor and is not dependable.
7. The analyst must go to many places to get the information that is available. He generally does not do that, so he may not be using all the information available to him in the Agency.
8. There is wasteful duplication among the various sources of information in the Agency.

THE CARD CATALOG (pp. 60-63)

1. The card catalogs are bulky, inefficient, and are badly maintained.
2. The card catalogs provide a lower level of intellectual content than is customary in research libraries.
3. Failure to change older material when classification numbers are changed, plus the pulling of cards for book runs, make use of the card catalog uncertain in terms of retrieval of material actually available in OCR.
4. Identifying an individual document available in OCR is slow, expensive, and uncertain.

INTELLOFAX RETRIEVAL (pp. 64-85)

1. Intellofax runs answer only ten to fifteen percent of the reference questions handled in the Reference Branch.

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2. Intellofax service is very slow for most of the questions handled, as compared with conventional means.
3. The need to make Intellofax runs to find out whether the Agency has a particular document results in exceedingly slow, untrustworthy, and costly service as compared with conventional methods.
4. The non-availability of the older Intellofax cards means that the total investment in Intellofax input is gone after five to six years, and there is no usable way to get at older materials.
5. The encoding of Intellofax runs is inconsistent and unreliable.
6. The information given on Intellofax tapes is inadequate for reliable selection of pertinent documents.
7. The intellectual level of the Intellofax system is low.
8. The Intellofax system does not always give the same data for repeated runs on the same codes.
9. The Intellofax system does not retrieve all the material known to the analyst, which should be in the system.

BIBLIOGRAPHY UNIT (pp. 87)

1. The total amount of bibliographic work performed is low and is of low quality. Little of it as currently performed requires special competence.

INDEXING OF FBIS MATERIALS (pp. 88-89)

1. The FBIS reports are one of the very important sources used in creating intelligence reports.
2. The contents of FBIS reports are now indexed by hundreds of analysts because there is no central index.

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**SECRET**CIRCULATION BRANCH (pp. 90-106)

1. The Branch is over organized and overstaffed.
2. Circulation Branch duplicates acquisition work and reference work which should be assigned to their proper units.
3. Production is low throughout the B branch.
4. Service is very slow.

FDD (pp. 107-108)

1. FDD duplicates index files and information services provided by OCR.
2. Translation service is an integral part of the over-all job of making literature available in usable form.

DOCUMENT DIVISION (pp. 109-114)

1. The present ISC cannot be applied uniformly to the coding of books or documents and must be revised.
2. The card production system is slow and wasteful.

MACHINE DIVISION (pp. 115-138)

1. Retirement of IBM cards limits the usefulness of the Intellofax system to five or six years of recent materials.
2. The Intellofax punched card files form a blind conventional classified card catalog.
3. Automatic machine filing does not keep the cards in a single file so that manual consultation of eight blind files for every subject code must precede machine searching; limits the speed of the whole system. Errors in this are inevitable and this limits the reliability of the entire system.

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4. These files are never intact.
5. These files require excessive space.
6. Little sorting is done on the machines that could not be effected by subheadings in conventional catalogs or bibliographies.
7. The Intellofax system as a whole requires more space than conventional systems.
8. An enlarged IPI could do the job now done by the Intellofax system at a higher intellectual level, and at about half the current cost.
9. An intact hard-copy room would be more economical of space, and would provide faster and better service than does the current film storage, IAC room and reproducing complex, and at lower cost.
10. Work done in the Registers is duplicated in other parts of OCR, particularly in the Intellofax system.
11. Optimum service to analysts and others in the Agency requires complete cycle service from a single point rather than the present fragmented approaches.
12. The Intellofax system has failed to provide service at as high an intellectual level as needed for the programs of the Agency. It is slow and costly and undependable.
13. Facsimile reproduction is slow, costly, and produces a product of low quality.
14. Greater speed of reproduction service, with higher quality and in more usable format can be obtained at lower cost by use of other available processes.

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MINICARD SYSTEM I (pp. 139-147)

1. The Intellofax system as currently operated provides very slow service, at a very low intellectual level, at very high cost.
2. As attested by the Assistant Director/CCR, the Intellofax system has broken down.
3. The results of Intellofax runs are unreliable because of unreliability of encoding and decoding, as well as the human errors inevitable in hand-pulling of cards from eight files for every code number inserted into the IBM machines for sorting.
4. Present planning for Minicard offers no solution to the present low-intellectual level of Intellofax. It is identical also in the large number of false sorts that will result, and will tie the analyst to a reading machine to get even the titles of the documents included in the batch sent to him. This will cost more of the analyst's time.
5. A printed bibliography, as an expansion of the IPI, together with an intact hard-copy file, offers promise of better and faster service to all analysts at lower cost, together with improved program efficiency.
6. Facsimile reproduction is poorer in quality, slower and more expensive than other methods now available.
7. The aperture card system, which must be supplemented by 35 mm roll film and by hard copies in the IAC room constitutes an inefficient substitute for an intact hard-copy file.

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~~SECRET~~RECOMMENDATIONS1. Mission of OCR

Decisions affecting the national security on the highest level are dependent upon estimates prepared by the intelligence community. These estimates are prepared through the utilization of all available foreign and domestic intelligence information. Intelligence information is made available through the use of written materials of all kinds. Without these materials, the intelligence effort would collapse. It follows that the Central Intelligence Agency must provide for the organization and utilization of these written materials in the best and most expeditious ways possible. This means that the mission of OCR is of the greatest importance, not only to the Agency itself, but to the intelligence community at large, and to the U. S. Government. The highest level performance attainable and the creation of a vital and positive reference service should be the goal of OCR with emphasis on the pertinence of the intellectual content of intelligence materials to the intelligence program of the Government.

The end products of the intelligence effort are of three kinds. It is from these products that national security decisions are made. These are estimates of the future, estimates of the current situation and research in depth which contributes so largely to the estimates. Each requires a different type and speed of provision of intelligence information, and the success of the producers of the end products is dependent upon information made available through a central reference service. Without a dynamic reference service, there

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can be no assurance that available and pertinent intelligence information has been evaluated and used in the preparation of estimates, reports, or in basic research.

It is recommended that the mission of OCR should be the provision of a dynamic central reference facility for the use of the Agency and the intelligence community. It should provide a positive approach to the utilization of intelligence information and act in anticipation of intelligence needs.

2. A library committee composed of representatives of all the components of the Agency should be created to serve in an advisory capacity to the Assistant Director/OCR and as a channel of communication to the Agency.
3. The passive philosophy now existing in OCR with respect to its functions should be changed to a more aggressive and creative one and there should be developed a strong leadership both within and without OCR to properly provide for its effectiveness.
4. The Registers should be studied in greater detail than was done by the Consultants in order to determine the areas in which they can contribute most effectively to the over-all information requirements of the Agency.
5. Present compartmentation is inefficient and results in overlapping of functions, the duplication of effort, and in general, the waste of many man hours of time. The administration of OCR should provide for a more flexible management program.
6. There should be established a high level bibliographical planning staff to develop and to experiment with methods, machines, and

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systems for complete cycle information handling. Included in such investigations should be studies of the strengths and weaknesses of the various tools for handling information, including determination of the break-even points for use of such tools as conventional card catalogs, notch<sup>ed</sup> cards, punch<sup>ed</sup> cards, film-sort cards, and similar devices.

7. The quality and speed of service provided by OCR should be high enough to reduce the amount of storage of documentation done by the analyst and the amount of reviewing of non-pertinent documents which now must be done by the analyst.

8. A program should be developed to bring together the analyst and the reference staff so that the reference staff may be aware as much as possible of what intelligence reports and programs are underway so that the staff might give a higher level reference service and be prepared to call to the attention of the analyst pertinent periodical articles, intelligence reports, books, documents, etc., which is a normal special library technique and service.

9. Professional employees of OCR should be given the same training program, particularly in introductory courses, as are the analysts in producing offices in the Agency. The training program should be planned to give sufficient instruction to enable the professional staff of OCR to give high-level reference service to users from the intelligence community.

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10. The personnel responsible for the OCR program should be outstandingly competent in the professional aspects of library work so that they can fit available techniques to the needs of the Agency or develop suitable techniques as needed to provide the analyst with required supporting service. This is particularly true in such areas as development of ISC, in which substantive needs must be blended with firm knowledge of classification and the organization of classification schemes, in order to achieve a workable tool.

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## 11. Proposed Organization

This recommendation is based upon the major premise of a centralized information service for CIA in OCR. By this is meant the establishment of one point of contact for users of OCR reference services. It is the intent that each OCR service division be represented at the central point.

As shown in the proposed organization chart, page 1, the suggested organization for OCR calls for an Office of the Assistant Director under which there will be three divisions administered by Deputy Assistant Directors. One Deputy Assistant Director will be responsible for Administrative Services, including administrative staff, machine support, and distribution.

A second Deputy Assistant Director will be responsible for Reference Services including those from the four Registers, the Reference Branch, the Linguistic Branch, the Map Service, etc.

The third Deputy Assistant Director will be responsible for Technical Services including acquisition, dissemination, cataloging, etc.

The major changes over the present OCR organization pattern are the following: (1) a transfer to a central reference division of all reference services now included in the Registers, in FDD, in the Map Library Division, and in the Library Division, etc. (2) the transfer from ORR to OCR of the Map Library Division and the transfer from OO of the Foreign Documents Division. Both of these divisions are performing reference services and should, therefore, be part of the Office of Central Reference; (3) the abolishment of the present Document~~s~~ Division and the abolishment of the present Library Division; (4) the immediate transfer to OCR of responsibility

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for all of the branch libraries and the inclusion of branch library personnel, collections and services in the Central Reference Service for all components housed in the new building; (5) the immediate merger of the two training collections into one branch library.

## 12. Functions of the Proposed Divisions

The Technical Services Division should bring together activities now performed in the various components of the Agency dealing with the acquisition, cataloging and dissemination of books, documents, and other intelligence materials. Cataloging should be limited to the normal library control of all physical items added to the OCR collections. The Bibliography Branch of the proposed Reference Division should index all materials for subject content.

The Reference Division should be responsible for accepting and satisfying all requests by users for all of OCR's services. This includes the use of books, documents, maps, Industrial Register information, Biographic Register information, Graphics Register information, finished intelligence, and historical intelligence. A Bibliography Branch should be responsible for the expanded IPI and the preparation and development of specialized bibliographies as required. The Circulation Branch should be limited to control of the loans of intelligence materials and to the physical maintenance of the collections.

It is to be noted that in naming components, the word "support" has been used. The reason for using the word is to try to clarify the relationships between the Registers, Map Division, and the Machine Division to the Central Reference Service, i.e., the Reference Division.

While it is anticipated that all of the branch libraries now in

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existence will be incorporated into OCR in the new building, it is to be noted that the Building Planning Staff reports that two activities may not be placed in the new building; these are Training and Commo. If this is the case, then two branch libraries will be necessary, each located in that space occupied by those activities, but under the direction of OCR.

### 13. Historical Intelligence Collection

The Historical Intelligence Collection has developed rapidly and already shows signs of usefulness throughout the Agency. Along with the collecting activity, a bibliography on intelligence is being prepared. At present, because of space limitations, this collection is housed in a room away from the Reference Service of OCR, and is administered by staff assigned to it from the Office of the DD/I. This arrangement should be discontinued and Historical Intelligence should become a part of the Central Reference Service. A special place, however, should be provided for the collection in the classification scheme so that these materials can be shelved together in the book stacks. Since this is a highly specialized function and interest unique to the Agency, a position should be provided for a curator who would specialize in this activity.

### 14. OTR Libraries

The two libraries now located in the Office of Training should be combined into one branch library under the direction of OCR.

### 15. Implementation

It will not be necessary to wait for the completion of the new building to put the proposed organizational pattern into effect. It is recommended that the three to four years available before the new building is completed be used to effect the new organization, and the

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recommendations in this report, to train the personnel along new lines, and from a new point of view, so that a smooth operation and dynamic and high-level reference service will be in effect when the move to the new building is made.

The first step in implementation should be the creation of the Reference Division as indicated above. This can be done in the Riverside Stadium. The information staff can be assembled from the present Library Division and the Registers. To bring map support into the Central Reference Service immediately, members of the information staff should be assigned for training periods to the Map Division [redacted] and rotated with the present map reference librarians.

Existing space in Riverside Stadium was examined in consultation with the Management Staff. It is clear that there is sufficient space available to begin the centralized reference service with the exception of locating two registers, namely Biographic and Graphics, adjacent to the central service. If the recommendations, with regard to the Document and Machine Divisions are implemented, it will be possible to move either the Biographic or Graphics Register to Riverside Stadium. This would mean that the Central Reference Service will be adjacent to the Industrial Register, the Biographic Register or Graphics Register, and only one Register, therefore, will remain outside of the space occupied by the Central Service. (The Special Register has been omitted from consideration in all studies of the Consultants). The other outside activity will, of course, be the Map Library Division, [redacted]

[redacted] which occupies a large amount of space, and could not

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be moved initially. By moving the present Library Division, that is the Reference and Circulation Branches and the Office of the Chief, which now occupy space in Temporary "M", to Riverside Stadium and into space adjacent to the Industrial Register, one central point of contact can be established. This should enable the Reference Branch to begin to provide service based on all of the resources of OCR.

To make room for the Reference and Circulation Branches of the Library Division, it is recommended that the Analysis Branch and the Processing Branch of the Documents Division be moved to Temporary "M". The Domestic Section of the Acquisitions Division should be moved to [redacted] and be integrated with the Foreign Procurement Section. Liaison Division of OCR should be moved to Temporary "M", as well as the OCR Administration and Operations Staffs. These moves will clear 16,500 square feet of space. Since the Management Staff states that space can be made available [redacted] the move of the Domestic Section of the Acquisitions Branch offers no problem. The need for space in Temporary "M", therefore, is 14,300 square feet. An actual measurement of space now occupied by OCR in Temporary "M" made on 22 April 1957, resulted in a figure of 15,683 square feet. Since only 14,300 square feet are needed and reductions are proposed in Documents Division, it is clear that these moves can be made.

The Circulation and Reference Branch components to be moved to the Riverside Stadium, plus the books to be moved [redacted] will require something under 16,000 square feet. While recommendations in other parts of this Report will result in a reduction of that space, it is apparent that the 16,500 square feet cleared in the Stadium will be adequate to permit merger of these components.

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Included in the 16,000 square feet is provision for a reading room where forty people could be accommodated at any one time. A book stack area of 4,500 square feet is also included. The latter space will allow for much needed additional book stack space and an expansion of the collection. There are now approximately 79,000 volumes shelved in the stack area in Temporary "M" Building, which measures 1,840 square feet. The 4,500 square feet in the Stadium will allow, therefore, for two and one half times as many volumes. The Library Division now occupies 12,339 square feet in Temporary "M", and (the vaulted area) in Que Building. The space occupied in Temporary "M" is 11,476 square feet.

The space proposed in the Riverside Stadium, when allowance is made for the hard copy material transferred from Que Building, space now used for the Photostat Expeditors and the savings in space that may be anticipated from changes recommended in the Circulation Branch, should provide 3,000 square feet for an intact hard copy file including space for the Photostat Expeditors and for readers in the hard copy room.

These figures indicate that the proposed moves can be made. As recommended elsewhere in this Report, the Searching Unit of the Circulation Branch should be transferred to become a part of the Acquisitions Division, but for the time being, the searching staff should be housed near the card catalogs and reference tools.

#### 16. Space

Space arrangements in the new building should be based upon the major premise of this report - a Central Reference Service for the Agency. The space arrangement should be likened to a circle which is the reading area, and the reference desk and all support functions

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should lead from the circle to the periphery of the circle. A drawing is appended as Tab A, which shows the recommended-space relationships of the components of OCR.


17. The proposed space in the new building should be so constructed as to accommodate the functions of a Central Reference Service. For the four-tier stack unit, 16,000 square feet of space is recommended and the building should be adapted to accommodate it. The four-tier stack unit will save 5,000 square feet of floor space as compared to the architect's plans, and this saving should be considered a net saving for the Agency as it is not needed for OCR purposes.

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ACQUISITIONS


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19. Move the Domestic Section of the Acquisitions Branch  and integrate its personnel and activities with the Foreign Section.

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20. Distinguish between the dissemination and distribution processes, transfer distribution to the Administrative Services Division, and follow the definitions of these functions as given in the Glossary of Intelligence Terminology.

21. Establish on an Agency-wide basis, a selection policy for the procurement of all types of intelligence material and established in consultation with the user divisions.

22. Purchase more books and other materials through the cash procurement procedure and make it possible for personnel buying with cash 

23. Place full responsibility for the book and document selection in the Acquisitions Branch and require the Branch to procure publications in anticipation of need and in accordance with an established Agency policy.

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24. Distinguish between book funds provided for the development of the central collections and funds necessary for the purchase of expendables.

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25. The book budget should be increased to approximately \$500,000 a year. Assign full responsibility to OCR for the budgeting and control of book funds for the collections. Assign budget and control responsibility to user divisions for money spent for expendables. Analysis should be made of the material and the numbers of dollars spend on expendables and firm regulations established to control the purchase of expendables. This should result in more funds available for the development of the central collections. OCR should continue to make purchase of books, newspapers, periodicals, etc., whether these are to be added to the collections or to be considered as expendable. Review and simplify the present budgeting procedure particularly with respect to the preparation of the book budget.
26. Implement the proposal of the Management Staff to undertake a detailed study of fiscal control and bookkeeping as now practiced by the Acquisitions Branch.

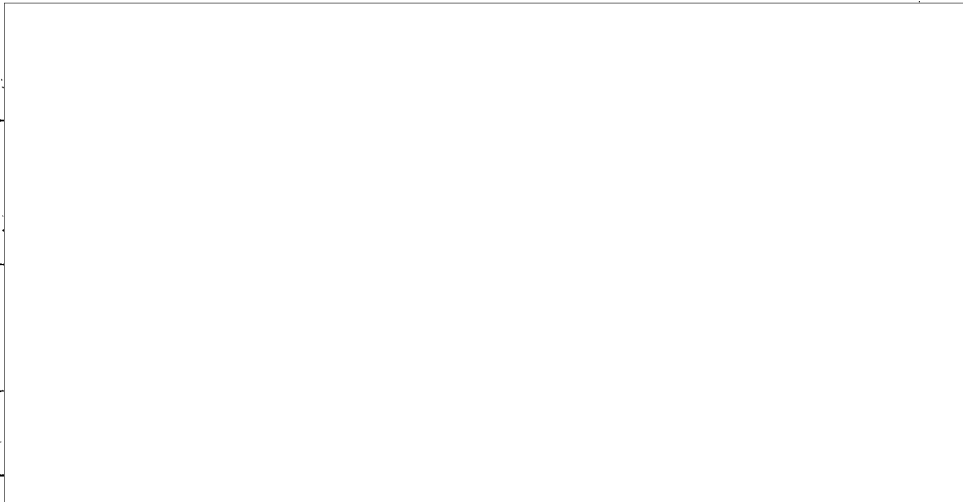
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28. The problem of enclosures should be given attention on the highest level so as to achieve better coverage of this vital source of intelligence information.
29. Provision should be made as part of the Acquisitions Branch routine to make photographic copies for users, both within and outside the Agency, of all single copy materials as acquired for intelligence purposes, and all single copies received should go directly to the intact hard-copy file.



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31. Transfer the book and periodical collection maintained in the Acquisitions Branch to the Reference Division where it should either be catalogued into the collection or otherwise disposed of.

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32. Transfer all reference and selection activities now performed in the Acquisition Branch to the Reference Division.
33. Step up work performance to compare more favorably with the standard of performance in research libraries particularly in the procurement functions and utilize personnel saved to establish a central serial record.

CATALOGING

34. The Catalogue Section should be located in space adjacent to the reference collections, book stacks, and the card catalogue.
35. Eliminate the card catalogue now maintained in the Catalogue Section since it is incomplete and duplicates filing time and maintenance time necessary for the catalogue in the Reference Section.
36. Station in the Library of Congress or send regularly to the Library of Congress a cataloger to search the more difficult titles so as to take advantage of work already done by the Library of Congress. Since 60 per cent of titles catalogued are not listed in the printed catalogue of the Library of Congress cards, it is likely that sufficient main entry information can be determined to expedite the cataloguing of titles in the Catalogue Section.
37. The procedures of the Catalogue Section be simplified to effect production of cataloging comparable to that of other libraries. If this is done, the present staff will be sufficient to handle the added cataloging load that will be caused by the increase in acquisitions that is proposed.

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REFERENCE

38. All information available from books, documents, periodicals, etc., including loan, purchase, interlibrary loan, or retention copy and other means for making the material needed available, should be provided from a single source in the Reference Division on a single request from the analyst. The information provided should tap all required sources, both within and outside the Agency.
39. All short-term transactions should take place at the central point, whereas longer-term inquiries should be referred to those persons and files located on the perimeter of the Reading Room. For example, quick identification of a personality can be handled at the central reference point but a request for a biographic report or a biographic briefing would result in sending the user to the Biographic Register. Similar examples could be given for the Industrial Register and the Graphics Register.
40. Information service should be speeded up to provide answers to quick reference questions (i.e. factual data obtainable from general reference tools) in ten minutes or less.
41. The tools available in the information room should enable reference librarians to identify any specific book, periodical, or document that is in the collection and to make it available to the user in five minutes or less.
42. The Registers should be a part of the central reference facility and their service should not be duplicated by other tools or services.

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43. Conventional 3 by 5 catalogue cards should be substituted for the IBM catalog cards in both the author and title and in the classified catalog, and these catalogs should be equal in quality to those in research libraries in general.

44. A bibliography of reports should be on hand to enable the Reference staff to provide quick reference information from documents without making machine runs of any type. Machine runs, if they prove useful for any purpose, should be limited to longer, retrospective searches particularly for material more than five years old.

BIBLIOGRAPHY:

45. While short, low-grade bibliographies may still be needed for special purposes, higher level bibliographic service aimed to supply information bearing on particular investigations should be provided. There should be more of this sort of service. Merger of the compilation of bibliographies with the compilation of the recommended enlarged IPI, should provide a large enough staff base to take care of a great deal more bibliographical work. This group should also be adequate for peak load staffing of the information room, rather than staffing the information room for peak load at all times.

46. The IPI should be expanded to cover all documents, books, and periodical articles that make a substantive contribution, including FBIS materials, and which are not covered in the Registers. Its quality should be improved by annotation of all entries and thorough indexing.

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47. The Circulation Branch should be reduced in size and range of responsibilities. Its Search Unit should be transferred to the Acquisition Branch, its reference functions should be handled by the reference librarians in the Information Branch, and its copying function, insofar as that continues, should go to the Machine Unit. The functions that should be assigned to this Branch should be limited to (a) the handling of the clerical routines involved in borrowing and lending of books and other materials, (b) and the shelving of materials and obtaining them from the shelves, (c) keeping the shelves in order, and (d) collecting materials to be bound and preparing them for the bindery.

48. The use of aperture cards should be discontinued in favor of an intact hard-copy room for documents up to five years old, after which all service should be from film of the documents in the same order as the materials are kept in the hard-copy room, i.e., by issuing agency and series.

49. The IAC Room should be converted into an intact-hard copy room, with space for readers and with Photostat Expeditors available so that analysts who want a copy of a document <sup>or</sup> of a page can make it immediately, without waiting for an order to be processed through OCR.

FOREIGN DOCUMENTS DIVISION:

50. FDD should be relieved of its reference function and should be the linguistics arm of the information service. It should be transferred to OCR.

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51. Phase out the Intellofax system as rapidly as the expanded IPI can take over this function. This would involve the discontinuance of punching of cards for documents as soon as the expanded IPI is started.
52. Insert subject and area guide cards in the present punched card file for Intellofax, interfile the various files and use them manually to supplement the IPI, and discontinue the machine runs on these. Return the punched cards for earlier years from storage and interfile them in this one file for manual use.
53. Discontinue the insertion of film into aperture cards upon initiation of the intact hard-copy collection.
54. Discontinue facsimile printing and substitute silver paper reproduction or RCA electrofax reproduction of references, in standard size slips.
55. In making copies of documents for analysts, whether from film or from paper originals, the reproduction ratio should be high enough to permit easy use, and this should take precedence over saving of a few square inches of paper per exposure.

**DOCUMENT DIVISION:**

56. Transfer the dissemination function to the Acquisition and Dissemination Division, the distribution function to the Administrative Division, and the indexing function, including the IPI, to the Reference Division.
57. Revise the ISC and make it internally consistent, defining all terms used in it and indicating when each should be used.

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MINICARD:

58. Minicard appears to offer some definite advantages over Intellofax in terms of the storage and reproduction of materials but it is currently being considered on the same intellectual level as Intellofax. The system has not been studied fully, and it is not possible to predict that it will make any great improvement in the program efficiency of the Agency in the whole information retrieval cycle.

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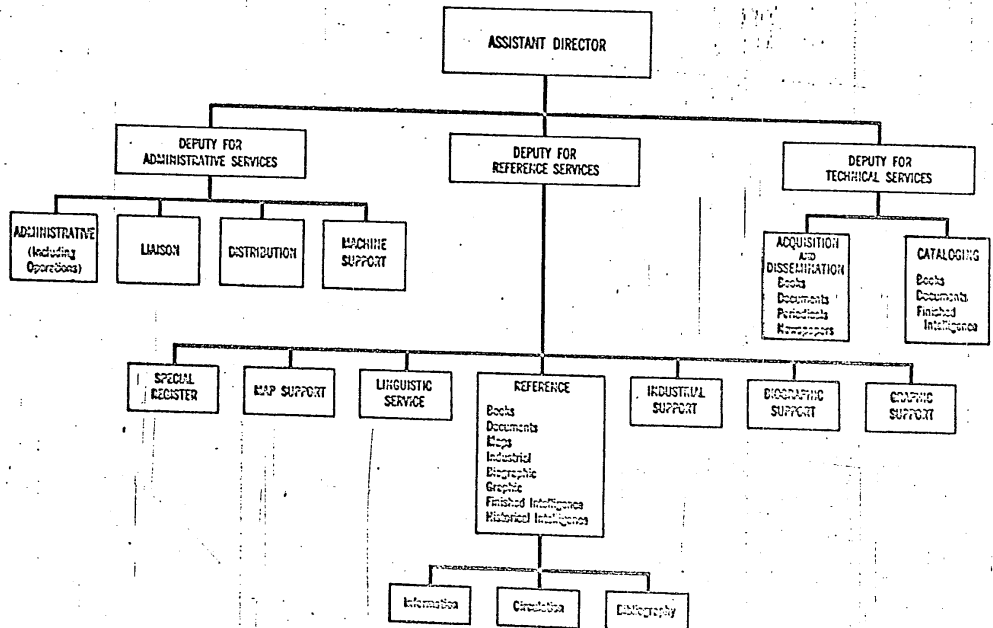
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ADMINISTRATION AND MANAGEMENT

PROPOSED ORGANIZATION

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OFFICE OF CENTRAL REFERENCE



May 1957

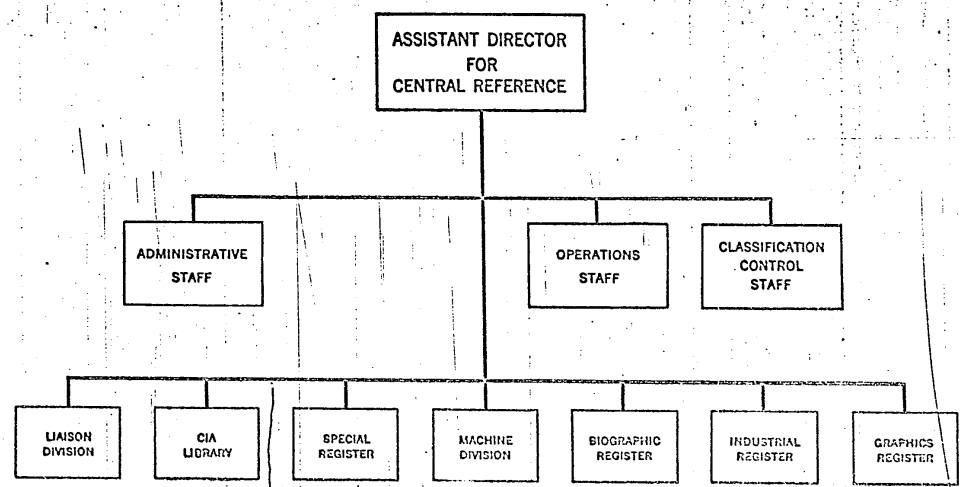
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REGULATION  
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9 December 1955

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**OFFICE OF CENTRAL REFERENCE**



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Figure 2

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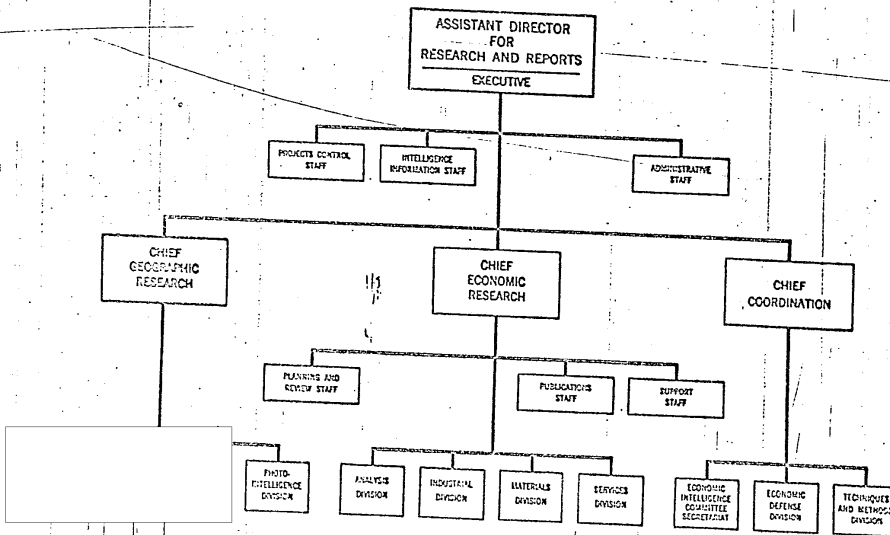
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# OFFICE OF RESEARCH AND REPORTS



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Figure 3

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**SECRET**MANAGEMENT

The success of the library program of CIA depends upon the inter-relation of three groups; the administration of OCR, the consumers of the Agency, and the library staff. The administration must have an appreciation of the relationship of the library to the total activities of the Agency, the consumers must have an understanding of the library's place in the complex and be able to contribute to the formulation of policies which will enable it to function most effectively to their advantage and the members of the library staff must be familiar enough with the policies and objectives of the Agency to carry out their part of the program.

A fundamental assumption upon which the organization, the administration, and support of a research library rests is that it is a service agency and that it does not exist in a vacuum; away from the administration or the users. It is important, therefore, that channels between the three groups be kept open for free exchange of ideas and for the development of library policy.

The CIA library in structure differs little from a university library. The top administrators represent the library to components of OCR and CIA in much the same fashion as a university librarian would represent his library to the several schools in the university. There is sufficient difference, apparently, in the kind of representation required here, however, that the top layer management should more properly come from some area of intelligence than from librarianship.

The Assistant Director for Central Reference views his assignment quite properly as one of assembling the material created by the Agency, the books and documents essential to the Agency's

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program, coordinating and making them available to the intelligence community. He sees OCR as a unit of CIA, subject to the call of the remainder of the Agency, not as an aggressive creative agency, but one to perform at the request of others and to organize and make available the kind of material that will be of value to them and that exists in the Agency. His philosophy in general concerning OCR is not to try to anticipate needs in building a collection of intelligence material and that if the product OCR produces is good enough, people will know about it and use it.

Colonel Moreau, [redacted] represent the *Cis, in fact* 25X1  
*Director* in certain fairly definite areas; the three of them, with Dr. Andrews, constitute the policy-making body of OCR.

Colonel Moreau represents OCR in Dr. Andrews' absence. He serves in addition on many across-the-board committees. He is chairman of the OCR Career Service Board, and serves as DD/I representative on the Selection Board; he serves on the Honor Awards Board, passes on fitness reports, briefs VIP's, holds briefing sessions weekly with branch chiefs to acquaint them with what is going on around the Agency; what IR and BR are doing and how it fits into the Agency program. He also tells other agencies how CIA can be of service to them. 25X1

[redacted] handles personnel. [redacted] is manager for all units of OCR, serves as liaison between Andrews and Moreau and the working units, and between all units of OCR and the library. He gives directives to the head of each unit about preparation of the budget and prepares the OCR budget for submission to Dr. Andrews. 25X1

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These officers and the activities in which they are engaged appear essential to the OCR program. There are aspects of the program, however, which require strengthening. In order that effective operation of the library in the Agency is not left to chance, a sound policy should be formulated, which defines the relationship of the librarian to the administration, makes clear what constitutes appropriate library sources, sets forth the duties of the librarian and defines the relationship of the library and the library staff to the administration and to the various components of the Agency. While the library is a service agent, it must become a more aggressive force in the intelligence community. Its philosophy with respect to anticipating needs should be revised and a more intensive book acquisition program initiated.

We disagree with the present philosophy which guides the development and management of the CIA library. Top leadership in OCR has been remiss in not pointing to the inadequacy of the book collection and to the need for additional funds with which it might be built at a more rapid rate than is possible on the present budget. Channels of communication between the OCR office and other offices of the division have not been kept clear or the library needs of the Agency and the areas in which present facilities fall short of requirements would be apparent to those in charge. There is nothing in the regulations which prevents CIA from anticipating the needs of the library for years hence or from building in the future.

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But regardless of management views on developing the book collection, directives to the staff in the form of buying policies are essential and have not been formulated.

Failure of the librarian to play a strong role in direction of the library is evident in various areas of the library. One which may be mentioned in some detail is record keeping.

Excessive record keeping consumes a great deal of time in all parts of OCR that were examined. Many records are kept that have no administrative significance. These consume time and add nothing of value to the program of the Library or the Agency. One especially clear example is provided by the records kept in the Circulation Branch of the Library. The monthly records, which do not give workload, and had to be recast completely for workload revealed two entirely different figures for enlargement prints from aperture cards each month on different pages of the report. Neither the Chief of the Branch nor the Assistant Chief of the Branch had noticed these and neither could explain them without a good deal of checking. It developed that one set of the figures was worked up by the Assistant Chief of the Branch and included on the first page of the report while the other set of figures was inserted in the report by a secretary, without checking. The fact that this had been going on for a number of months and nobody either inside or outside the branch had noticed it until the surveyers began to attempt to determine workload figures indicates that nobody could have made any use of these reports for administrative purposes.

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What is worse, the reports are not only loaded with irrelevant and unnecessary material but they fail to give the statistical data needed for day to day administration and are not used for that purpose.

While this is a clear example of the fact that record keeping is done for the sake of record keeping, and is excessive for the use made of it, this is by no means a unique case.

Another area in which library leadership had been lacking is its failure to make the library a more vital force in the intelligence community, which could have been achieved in a variety of ways such as by preparation of bibliographies and book lists of interest to the staff of CIA, drawing attention to the library's facilities, by instilling in the staff a desire to be of service to users, and by examining and testing regularly the library procedures and routines for adequacy.

#### FINDINGS REQUIRING ACTION

1. OCR lacks an aggressive, creative philosophy with respect to its position in the Agency.
2. A clear policy on book acquisition is lacking.
3. OCR lacks the kind of leadership needed to make it a vital force in the intelligence community.
4. Too much time is spent keeping unnecessary records.

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The space layouts recommended for the new building are based upon the major premise of a centralized information service for CIA in OCR. A centralized information or reference service will establish one point of contact for users of OCR reference services. Each OCR Service Division will be represented at the central point and the Reference Staff so constituted will search and bring together for the user, all information available in OCR on any given subject whether in books, documents, maps, graphics, special indices such as the Industrial Register and the Biographic Register or in other likely sources in the Washington area. The lack of pertinent data as recognized by the OCR Reference Staff and the user should result in the formulation of collection requests to be directed to the major collection activities of the Agency, (OO, OCR, DD/P, ORR/Maps, etc.)

Present compartmentation results in duplication of services and waste of effort on the part of the user in going to two or more places for the information he requires. Proper and efficient administration and management of a central reference service designed to give maximum service in reasonable time demands a space arrangement whereby the user-reference point of contact is adjacent to a reading area and surrounded by all support activities of the Central Reference Office. Each support activity must have ready access to the reference desk and the reading area. This may best be conceived as a circle, the center of which is the reading area, and the reference desk and all support functions lead from the center to the periphery of the circle. Analysis of the layout, Scheme 5 (Tab A), will reveal the desired relations and show that the centralized reference concept can be realized in the space available to OCR in the proposed new building.

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The plans (dated 13 May 1957) submitted [redacted] based on the conference [redacted] do not achieve the objectives shown in the Consultant's plans (Scheme 5). They split up the Reference Division and the stack area. In addition, the [redacted] scheme uses 5,000 square feet of floor space (some 70,000 cubic feet of the building) in excess of what is recommended by the Consultants. This is attributable to the attempt to keep within office type space, instead of building the four-tier stack recommended by the Consultants, and in addition, these plans make the reading room only twenty feet wide, which is a bad proportion for the reading room.

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The location of the four-tier stack at the east end of the lightwell as suggested [redacted] during the recent conference would effect the saving in space and the functional relationships recommended by the Consultants.

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Proper arrangement of space is essential to implementation of the management recommendations in the Consultant's report, and these cannot be effected unless proper relationship of the various units is provided for in the building plan. If proper space is not made available, an integrated operation will not be possible, and the improvements in operational and program efficiency posited by the Consultants cannot be achieved.

A revision of the OCR space directive, including the Map Library Division, but not including FDD, was made in consultation with Mr. Hitchcock. Since this has been accomplished, there is no point in reporting these details in this report. Reference is made to the revised space directive, which is Tab B.

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There are space implications in other parts of this report and implementation of the recommendations in other sections, particularly with respect to the use of hard copies, the substitution of a bibliography for the operations of the Documents Division, and Machine Division in the Intellofax process, etc., will permit downward revision of these space requirements.

FINDINGS REQUIRING ACTION

1. Compartmentation results in duplication of services and waste of effort on the part of the users of information.
2. Present space arrangements are unsatisfactory and satisfactory service is not provided in reasonable time.
3. The new building can provide space arrangements proper to the efficient management of a central reference service.
4. Plans submitted by the architects do not provide the desired space arrangements.
5. The architect's plans are wasteful of space.
6. There is an attempt to keep within an office-type new building instead of planning space to meet functional needs.
7. Proper space is necessary to the implementation of the Consultants' recommendations.
8. An integrated reference operation is impractical unless proper space arrangements are provided.

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TECHNICAL SERVICES

**SECRET**COLLECTION POLICY AND PROGRAM

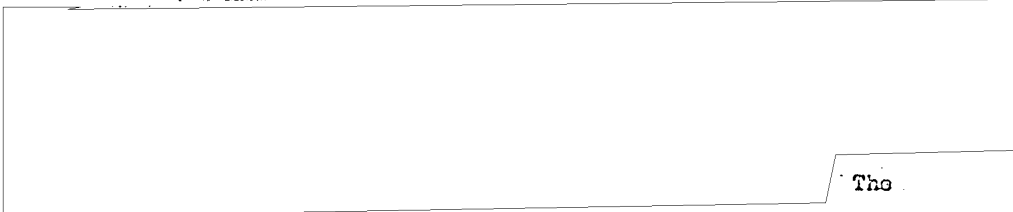
The functions of OCR as stated in the directives to the Assistant Director for Central Reference include operation of "the CIA Library, which will serve all offices of the Agency in accordance with their needs and other agencies of the intelligence community to the extent possible"; and to "provide books, periodicals, documents and other publications required for use by all components of the Agency." The implications of these directives are clear.

The fields of interest of an intelligence agency are so diverse, however, that a library service in such an agency could add almost every new domestic and foreign publication and be reasonably certain that at some time all would be used. Important research libraries already exist in the Washington area, and these should be utilized. These conditions call for clearly defined book selection and acquisitions policies. The policy, as set forth broadly, on February 20, 1951 says, "We have no intention of building a research library specializing in any given subject. We do wish to emphasize the acquisition and availability of as complete a collection of material as possible, in any language, on the U.S.S.R., satellites and perimeter areas in the field of major interest to CIA. The second emphasis should be on publications dealing with intelligence and espionage. The third is on scientific warfare, and fourth, on a good collection of basic reference works. This is to be our acquisition policy."

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Selection Officers check all important English language book trade lists and book reviewing periodicals. The foreign language publications are checked by the language specialists in the Information Section of the Reference Branch. All book purchase orders received in the Search Unit from Agency components are examined by the Selection Section for titles of interest to the OCR. Analysts and other readers are encouraged to inform the Selection Section of publications they wish to recommend for the OCR collections. Much material received on a "no order" basis is screened regularly by the Selection Officers to isolate titles which should be in OCR, e.g. foreign language books received

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enclosures to documents; materials from the Map Library, Branch Libraries, etc.

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For the reference and bibliography collection, the staff attempts to maintain a comprehensive collection of aids likely to be useful to the intelligence community. These include general and special, national and trade bibliographies, directories, year books, encyclopedias, dictionaries, biographical reference books and the like. Beyond the Soviet and satellite countries, the geographic areas of interest to the Agency, but for which coverage is aimed at less completeness, are the Middle East, Southeast Asia, Western Europe, Africa and North and South America.

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Books in English on all phases of the USSR's history, development, economy, science culture, and politics are purchased, Russian language

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books in these areas, and such technical books as bear on industrial management, agronomy, communications, meteorology, mining, construction industry, etc. are screened for the collections from those received through the variety of sources already indicated. Materials in the field of intelligence, e.g. espionage, guerilla warfare, evasion and escape, and cryptography are now acquired for the HIC collection, and as titles are noted they are called to Mr. Pforzheimer's attention.

Completely objective appraisal of the collection in OCR would require a more detailed and exhaustive study than appears necessary here. But enough objective data are available to show that OCR falls short of minimum strength for the support it should give the intelligence community. Analysts in the Agency have repeatedly commented upon the weaknesses of OCR's book collection.

Several spot checks have been made on the adequacy of selection of current materials in the English language for the Soviet and the satellite countries, and these disclose that the Selection Officers are doing a fairly thorough job in this restricted area. Of the titles on USSR listed in the Cumulative Book Index, in 1953-54, 98% were in the collection; on Poland, 90%; on German, 92%; on China, 93%.

Users have been critical of OCR's failure to acquire retrospective materials. That this condition exists is supported by the following figures on the percentage of books appearing in the Cumulative Book Index during the years 1943 - 1948 held by OCR: on USSR, 61.8%; on Poland, 60%; on China, 54.5%. It is logical to assume that examination of the holdings of the titles on these areas published ten years earlier would be substantially lower.

Experience in obtaining material published in Iron Curtain Countries

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and peripheral areas has shown that research libraries in the U. S. generally neglected to collect materials from these areas prior to World War II, when it was relatively easy to obtain these materials. This means that the percentage of important research material from these areas for early years that is available in other research libraries is small. For this reason, the Agency might be justified in relatively more intensive collecting of key materials for early years from Iron Curtain Countries or peripheral areas. In more recent times, a larger percentage of material can be obtained from other libraries and therefore, the selection might be limited to things that are clearly within the scope of the Agency Program.

Spot checks of the Cumulative Book Index for 1953-54 and the first half of 1956 of materials published on other areas of interest to CIA revealed that [redacted]

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[redacted] for Iran, 85%; for Argentina, 80%. The percentages for 1945-48 were: [redacted] Iran, 62.5%; and Argentina 55.5%.

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Similar checks against lists of reference books in Mudge, Winchell, College and Research Libraries, and in other aids to selection show that a fairly high percentage of the useful titles have been acquired.

That the wealth of material in other Washington libraries must be considered in making purchases for CIA has been acknowledged, particularly where back files of journals, newspapers, and extensive serial sets are concerned, but a core collection of basic books should include much of the monographic material not now in OCR on areas of primary and secondary interest to the Agency.

Examples of gaps, provided by the reference staff, include the following:

1. Missing volumes of bibliographic indexes such as Industrial Arts

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Index, Book Review Digest, PAIS, etc.

2. The best encyclopedias from all countries.
3. More commercial directories from all countries.
4. Complete file of New York Times on microfilm.
5. Back files of the more important periodicals received.
6. Five-year original copy files of all periodicals indexed in Readers Guide and in Industrial Arts Index.
7. All national bibliographies back to 1935.
8. Bound volumes of the NEW YORK TIMES for five years.
9. Complete sets of:
  - KNIZHNAYA LETOPIS'
  - LETOPIS' GAZETNYKH STATEY
  - LETOPIS' ZHURNALYKH STATEY
  - YEZHEGODNIK KNIGI
10. Polk's city directories for 20 major cities of the U. S.
11. Up-to-date file of available official gazettes for the Bloc countries.
12. U. S. Code Annotated (to date)
13. Code of Federal Regulations (to date)
14. Complete file of British and foreign state papers.

Lack of space is indicated as the principal reason for the relatively slow growth of the book collection and for the absence from the shelves of much obviously basic material. All too frequently the opportunity to purchase easily and inexpensively a needed book comes only once, and neither space nor staff limitations should influence a decision.

At this point, a note of caution about weeding should be interjected. This project was stimulated by lack of shelf space, and

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5,000 volumes were removed from the shelves. A few of the titles presently in the process of being discarded have been examined, and the decisions of the Selection Officers appeared sound, but at this early ~~stage~~ stage in the development of the collection, any errors of judgement should be made on the side of retention. Staff time spent on weeding could be spent more profitably on selection. A source of retrospective material, which is neglected is the second-hand and out-of-print dealers catalogs. These could be checked with profit and this could be done in less time than is devoted now to weeding the collection.

Some of the weaknesses of the present program may, of course, be attributed to the physical arrangement of OCR and correction should possible with occupancy of a central building. In selecting books, knowledge of all members of the Agency staff should be utilized. The process of building a book collection here should differ little from such an operation in a university library. The Agency staff has not participated actively in book selection.

A disproportionate number of books ordered go direct ~~of~~ to offices and may never reach the library. The new building should permit easy access of all ~~xx~~ analysts and researchers to OCR and should discourage the practice of requesting books in large numbers for office collections. Rather, analysts should be encouraged to recommend books needed by them in the OCR collections. The above indicates that insufficient funds are allocated to permit the development of an integrated intelligence collection.

**FINDINGS REQUIRING ACTION**

1. OCR collections are inadequate to meet the needs of the Intelligence community.
2. Decision not to purchase needed books is frequently based on space and staff limitations.

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3. The Agency Staff has not participated actively in the selection of Intelligence materials.

4. Insufficient funds are allocated to permit the development and integration of intelligence collection.

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ACQUISITION PROGRAM

The Acquisitions Branch has two major responsibilities:

1. The procurement of foreign publications for CIA and other agencies

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2. To serve as the central procurement or order point for all publications required by CIA.

Besides these two major functions, the Acquisitions Branch is also charged with the cataloging of books and monographs to be maintained in the OCR collections.

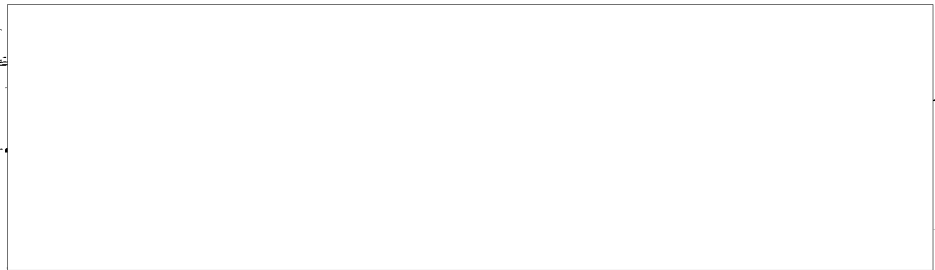
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To discharge its duties, the branch has been divided into

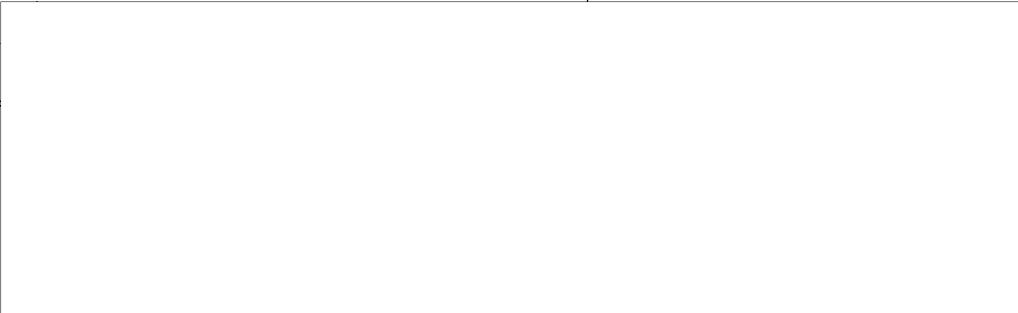
four sections: Foreign, Domestic, Dissemination, and Cataloging.

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The Domestic Section is responsible for the procurement of publications available through book stores and other sources in the United States. The Section is divided into two units: the Cash Purchase Unit and the Purchase Order Unit. The difference between the two units is simply expressed in the names given to them. The Cash Purchase Unit uses dollars to purchase books from local dealers, while the Purchase Order Unit follows the cumbersome government purchase system, and uses standard book purchase order forms. Aside from the speed with which books can be acquired by the Cash Purchase Unit, the personnel cost per volume acquired is 1/8 of the cost to use the standard purchase order form.

The Dissemination Section is engaged in distributing newspapers, periodicals, and monographs to other government agencies 

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Of the sixty-eight persons engaged in the acquisition function, the time equivalent of fourteen persons is occupied in required services to or on behalf of United States Government agencies other than CIA. Seven persons are engaged in reference, circulation, and aids-to-selection

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work. Three positions are assigned to training duties. This means that with the assignment of seventeen positions to cataloging, twenty-seven positions are occupied in procuring publications, both foreign and domestic, and including periodicals and newspaper subscriptions solely for the CIA.

To provide a basis of comparison in the gross activities of the Branch in procurement and dissemination, the time of one additional person has also been subtracted since that person is engaged primarily in the procurement of material from the defense establishment and in the management of the newspaper contract. A unit from the Circulation Branch also is charged with obtaining materials from the Defense establishment and other intelligence agencies.

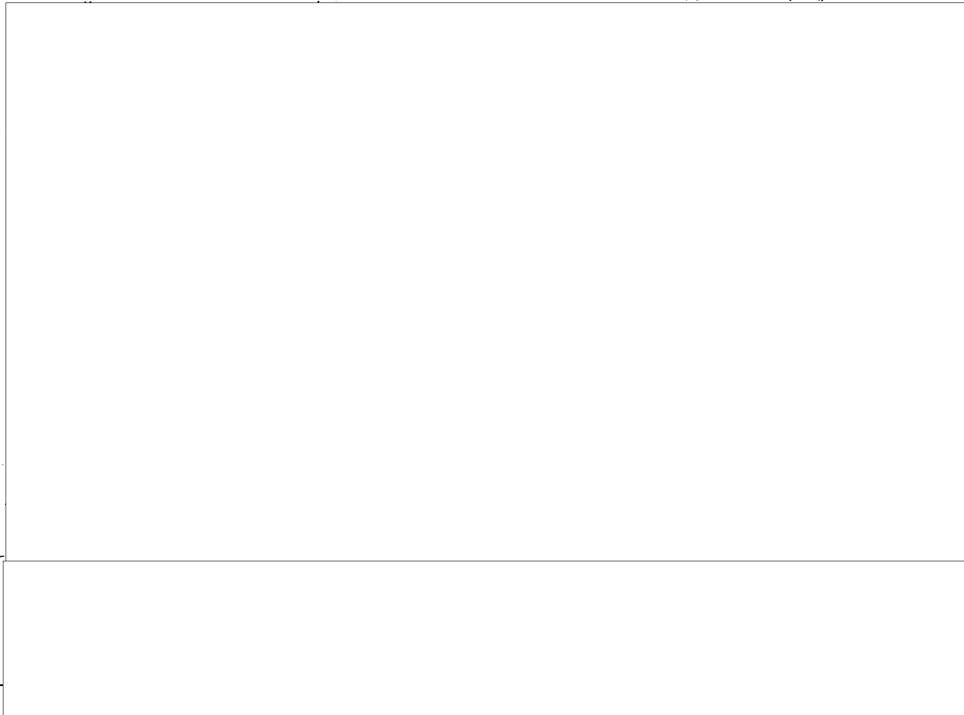
During the fiscal year ending June 30, 1956, the Acquisitions Branch placed 16,160 subscriptions and ordered or collected 51,813 volumes. Twenty-six people were required to handle this work load. During the same period, the Yale University Library, with a staff of eighteen people, acquired 73,308 volumes and placed 2,095 subscriptions. The Library Division of the Department of State acquired 12,275 subscriptions and 59,193 volumes with a staff of fifteen people in the same period. By combining subscriptions and volumes acquired, thirty-six people are processing 67,973 work units in the Acquisitions Branch. This equals 2,614 work units per person per year. Comparing this figure, we find that at Yale 4,189 units are processed per person per year, which is 64 percent more work per person than present performance in the Acquisitions

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Branch. The State Department work unit figure is 4,764 units per person per year, which is 82% more than done in the Acquisitions Branch. Assuming 4,000 work units per person per year as an average work load in a normal research library, this Branch should only require sixteen or seventeen people to handle this work load under present operating conditions. In other words, more than one third of the people now employed in the Acquisitions Branch should not be necessary under normal working conditions.



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The Acquisitions Branch is, at present, divided between two locations. The Chief, his staff, the Foreign Section, and the Dissemination Section

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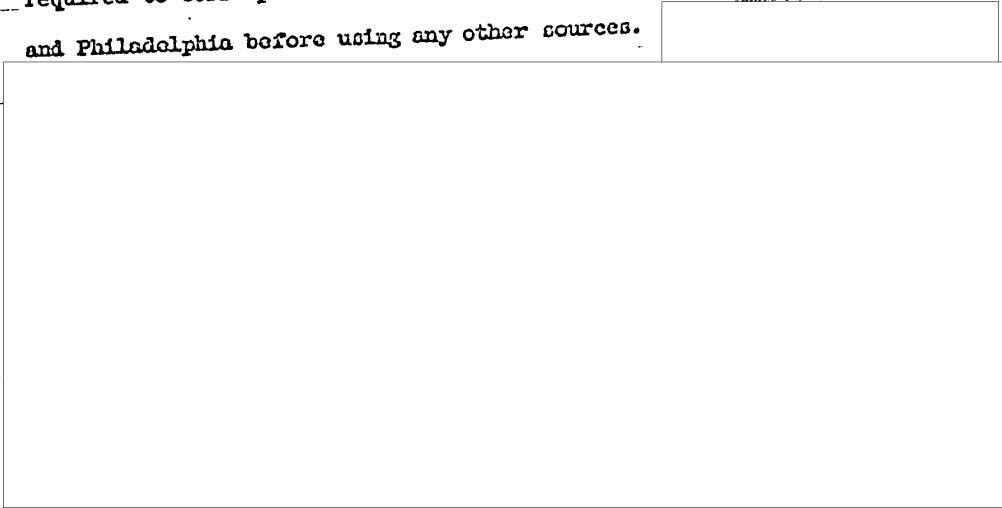
are located [redacted] across town from the Domestic Section, which is located in Riverside Stadium. This separation has resulted in operational decisions not conducive to an efficient operation.

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Policy decisions have been handed down which hamper the efficiency of the Branch. For example, Cash Purchase Unit is authorized to buy books for cash from an approved list of Washington book dealers. Whenever a book is found to be out of print, however, the unit is required to correspond with out of print dealers in Washington, Baltimore, and Philadelphia before using any other sources.

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It can be demonstrated that while the present procedures for ordering books not available in Washington are time consuming, the Agency is also paying more for books purchased from Baltimore and Philadelphia than for the same books purchased in New York. For example, a book with the title, SPYS AND SABOTEURS, which retailed originally at \$2.50, was purchased in both Baltimore and New York. The copy received from Baltimore

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cost \$4.00 plus transportation. The copy received from New York cost \$1.50 plus transportation. Another example, is the book entitled CHINA'S RED MASTERS. Originally published at \$3.50, two copies were purchased from New York, one at \$2.00 and one at \$1.00, while a third copy received from Baltimore cost \$3.75. Of eight examples of similar transactions cited by the Domestic Procurement Section in only two cases were New York prices higher than Philadelphia or Baltimore prices. A book entitled MURDER IN MEXICO originally selling for \$2.50 was procured from Philadelphia for \$2.50 while the New York price was \$3.15. In another example, a book entitled SURPRENTIOUS EMERY retailing originally at \$2.50, two copies were received at different times from New York, one costing \$2.00 and the other \$2.75. The copy received from Baltimore cost \$5.00 while two copies were procured in Philadelphia at 75 cents each.

The above random sampling as provided by the Head of the Cash Procurement Unit checked by the Head of the Domestic Procurement Section and discussed with the Assistant Chief of the Acquisitions Branch would indicate that with the Cash Procurement Unit authorized to deal directly with New York by telephone, as is now commonly done, there would be a savings in man hours of time consumed in the transactions as well as a dollar savings in book costs.

A further handicap in the Acquisitions Branch is the lack of clearly defined authority to act and to procure publications in anticipation of

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need and in accordance with an established Agency selection policy. For example, books and periodicals, either domestic or foreign, can only be procured upon direct order from the user divisions in the CIA or from the Selection Officer in the Library Division. Alternatively, the Acquisitions Branch can ask for authority to purchase but does not have authority to purchase without an account number. In some instances, basic reference books have been purchased in advance of demand or additional copies have been ordered for this purpose. However, under present policies all copies must be accounted for through the procedure of obtaining authorization from a user division within the Agency. This results in multiple orders for the same book or books, thus making the procurement function more complex.

There is an over emphasis on bookkeeping and fiscal controls. The user divisions are required to determine their needs in advance for budget purposes and then every effort is made to hold the Divisions to this number of dollars for the purchase of books and periodicals in any given fiscal year. It follows that if a user division over-expends the sum established in the budget-making process, the user division must request and justify the need for additional monies. The Acquisition Branch in this process must prove, and keep records to do so, what expenditures were charged against the user division's allotment and that these charges had been authorized by the Division. The justification of the book budget each year by OCR is based upon justifications supplied

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by the user divisions. This procedure appears to be cumbersome and unnecessary. This attempt at money control also adversely affects the development of the OCR collections. What is indicated here is an economy mindedness within OCR which places budget justification on the user division and results in a low level procurement service and excessive bookkeeping. In normal research library situations, the librarian is totally responsible for the book budget and estimates the number of dollars needed and supports his estimates.

If it is true that funds for the purchase of things is easier to justify in Government today than funds for personnel, it would follow that the Acquisitions Branch budget estimates which have been higher than approved figures because of a cut-back at the OCR or DD/I administrative levels, should be supported and should result in a more efficient acquisition service and in having books on the shelves when needed. It is axiomatic that it is cheaper to buy multiple copies of books than it is to attempt to make a few copies of a given book serve multiple needs.

It is not within the scope of this report to suggest more than broad problems in the areas of fiscal control and budget, but it is evident that thorough studies should be made of the large amount of bookkeeping that is now going on in the Acquisitions Branch and the relations of the Acquisitions Branch to the Agency's fiscal control office. It is understood that a study of fiscal controls has already been proposed

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by the Management Staff. It appears that at least four man years of time are now consumed in the Acquisitions Branch in bookkeeping and in fiscal control. As is the case in other parts of OCR, the procedure to use IBM cards for bookkeeping and acquisition analysis and control purposes is not found dependable and the records are also kept manually.

It should be noted here that OCR is to be commended for the establishment of the Cash Procurement Service. This was the first example of the use of cash for the purchase of books and periodicals in the government and has been copied widely by other government agencies. It is an efficient and economical operation and, as observed before, costs one-eighth as much in personnel costs as do standard government procurement procedures.

Because of the location of the Acquisitions Branch [redacted] and also the location of the Foreign Documents Division on the same floor [redacted] the Branch is called upon to perform certain reference, circulation, and aids-to-selection activities which under more-favorable circumstances should be taken care of by the Reference and Circulation Branches of the Library Division. In a revised analysis of work loads for the fiscal year 1956, the Assistant Chief of Branch reports that seven full-time people are engaged in these activities. The Search Unit of the Circulation Branch automatically refers all foreign language requests to the Acquisitions Branch for identification and to determine whether or not the periodical or monograph, particularly in Russian, Slavic and Oriental languages, is in the collection of 20,000 volumes

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maintained [redacted] These seven people also assist the Selection Staff of the Reference Branch in the selection of foreign language materials. These Acquisition people, who have language facility, translate titles and otherwise indicate the nature of foreign language books and serials, and with this assistance, the Selection Officer from the Reference Branch makes a decision as to whether the material should be catalogued for the OCR collections. By moving this collection of books and periodicals and making it a part of the central book collection, and by delegating the selection responsibility for foreign language materials to the Acquisitions Branch, these seven positions can be eliminated.

The Management Staff has recently studied the work of the Dissemination Section and the Foreign Procurement Section in consultation with the Chief of the Acquisitions Branch and has developed a plan to expedite the flow of books and periodicals into and out of the Branch. As of the present writing, workmen are engaged in making the necessary physical changes [redacted] and installing new equipment to implement the new organizational plan and to introduce more efficient procedures and methods of handling publications received. A review of the study with the member of the Management Staff who prepared it, and the Chief and Assistant Chief of the Acquisitions Branch, indicates a thorough understanding of the problems of Acquisition and Dissemination, and the plan should result in a more efficient operation. In fact, it is presently estimated by the Branch that when the new procedure is in effect and the staff has been trained, the present staff can be reduced by five positions.

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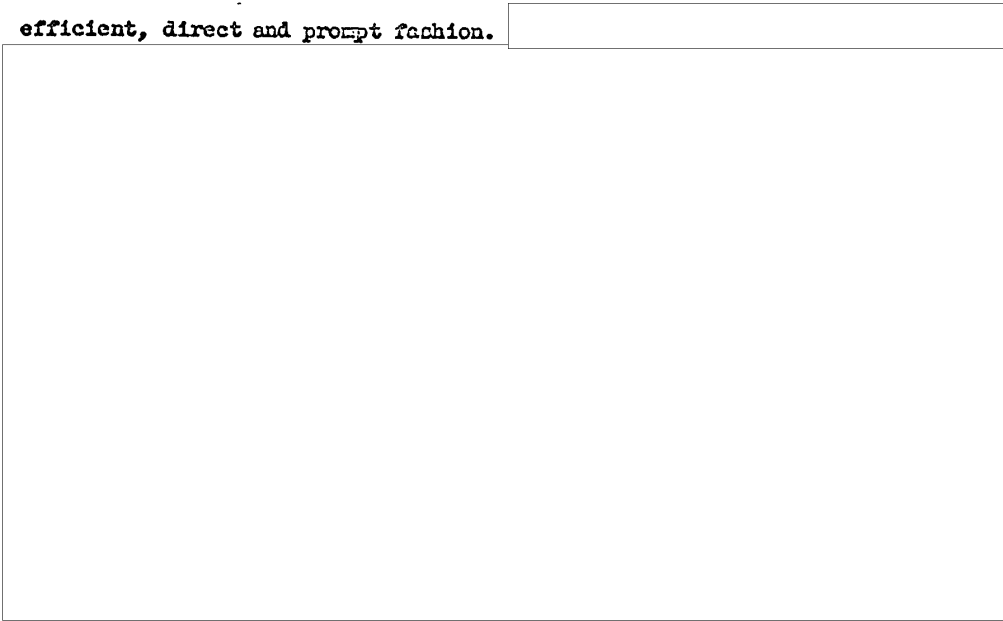
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No further observation seems necessary here since the activity is under study by the Management Staff and the plans as projected appear to solve the problems the Branch now confronts in Dissemination. It provides for a solution to the separation of the procurement and dissemination functions as has been the practice; however, this report recommends elsewhere that acquisition and dissemination activities now performed by the Documents Division be transferred to the Acquisitions Branch. This recommended transfer should also be included in the study of the operation now being undertaken by the Management Staff.

It has been observed before that administrative orders and decisions have tended to hamper the work of the Branch, whose job should be the procurement of books and periodicals for the CIA in the most economical, efficient, direct and prompt fashion.



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BOOK BUDGET

The pattern of development of the book budget each year for the past several years seems to be this. An estimate is prepared by OCR and incorporated into the budget. This estimate then is revised upwards a year later in an effort to produce a more realistic figure and the latter figure is based upon consultation with the user divisions. But OCR is held to the first estimate made the previous year and that estimate is used in the budget that is processed through the Bureau of the Budget and the Congress. It then has followed that the appropriated sum (the first estimate) is augmented by the use of funds

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from various Agency sources so that OCR winds up at the end of the fiscal year actually spending more than even the revised estimate called for. This build up results from one, two, or more memoranda of justification for allotment increases. This procedure is cumbersome and can be simplified.

There seems to be an attitude that the book budget is too large and that it has risen too rapidly. There is a failure to realize that books, newspapers, and periodicals are the life blood of any intelligence agency and that without them the intelligence reporting jobs simply cannot be done. When the total spent for books is compared with the grand total needed to operate the Agency, the sum becomes insignificant indeed.

Further, an analysis of OCR expenditures indicates that only one third of the total funds allocated for the purchase of books is actually used to stock OCR collections. For example, in FY 1956, \$47,035 were spent for OCR and Library Division requirements. This included the purchase of U. S. daily newspapers, domestic and foreign subscriptions, and books. In addition, \$16,422 was spent for books ordered by user divisions. This means, however, that the book actually is on a shelf in the user division and that OCR has only a catalog card record of it. Thus, a total of \$93,457 out of a grand total of \$308,957 was spent for the development of OCR resources. In other words, \$215,500 was spent by OCR at the direction of others and the effectiveness of this money is not related in any way to the development of OCR collections. It should be noted also that \$179,619 of the \$308,957

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actually expended was for expendable items purchased for DD/P or DD/I, in the main, and for other user divisions.

A comparison with other research libraries indicates the inadequacy of the book budget. The best comparison is based on statistics published in College and Research Libraries. These figures usually include the total spent for books and binding. OCR spends about \$1,200 a year for binding and therefore, if we add this figure to \$93,457, a comparable figure is \$94,657. This then, compares with the expenditure of Harvard University in 1955-56 of \$595,374 for books and binding. A smaller institution, Duke University, spent in the same year \$224,963; Columbia University spent \$329,483 in the development of its library collections; the University of Illinois spent \$491,554; Yale University Library spent \$480,495. Actually the level of expenditure for the CIA collections compares to Iowa State College, \$99,926, or Brown University, \$105,779. These figures indicate that the level of expenditure is entirely too low for the needs of an agency doing intelligence research with the full-time effort of approximately 1,200 highly skilled research analysts. It is recommended that every effort be made to increase the money available to OCR for the development of its collections from the present level of \$93,000 to a minimum of \$200,000. This would mean a total budget for the Agency for the purchase of book materials, both those that are kept and those that are considered expendable, in the vicinity of \$500,000, a much more realistic figure for the job to be done. ~~It~~ It also should be unnecessary for the Assistant Director/OCR to have to justify the book budget in the detail now required. For all practical purposes, the full time of one person is spent each year doing nothing but assembling data for and writing detailed budget justifications for book funds. Acceptance of the urgent

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need in intelligence for books, periodicals, and newspapers and the fact that money is necessary to buy them should also eliminate the cumbersome procedures described above.

ENCLOSURES

One of the most difficult problems OCR faces is the collection and dissemination of enclosures to State Department reports and despatches, Air Attache reports, Naval Attache reports, and Army Attache reports. This problem has bedeviled collectors, librarians, research analysts, and top-level intelligence administrators ever since the U. S. Government created its first major intelligence service at the beginning of World War II. Analysts do not see full documentation on any subject when the enclosure, which may be a book, document, periodical article, confidential report, conference notes or reports, is not available to him along with the report.

In most instances, enclosures come in one copy only. This single copy is sent with the action report or despatch to an operating desk in the agency where it is received. Many man hours of time are spent requesting enclosures or copies of them; some few are obtained promptly, but many are never received or are received many months too late for use in CIA. Since this problem is of long standing and since many fruitless efforts have been made to solve it, it has now become a problem to be considered and discussed on the highest level. There are now fast, modern methods of reproduction which if introduced

could solve the problem and save many man hours of time now wasted in an effort to obtain these elusive materials. It is recommended that this problem be given the personal attention of the DD/I and even the Director of Central Intelligence if necessary. OCR can document the case easily and readily

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and supply the facts in support of any action of the DD/I is willing to take. This matter has been caught up in bureaucratic snarls, economy mindedness in the wrong direction, and is beyond solution at the OCR level.

As noted in the section on Acquisition policy, this problem of single copies is significant, also with respect to single copies received in the CIA. Provision should be made as part of the Acquisition routine to make such photographic copies as are necessary for the users while providing for the immediate control of the copy received in the intact hard copy collection of OCR.

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~~SECRET~~CATALOGING OF BOOKS

The cataloging, classification and subject or reference analysis of books for the entire CIA has been assigned to the Catalog Section of the Acquisitions Branch, OCR, located in Riverside Stadium. The Section occupies space adjacent to the Domestic Procurement Section of the Acquisitions Branch and the Requirements Unit of the Machine Division. Part of the Search Unit of the Circulation Branch upon which the Cataloging Section is dependent for bibliographic information is also adjacent to this Section. Cataloging procedures followed are those common in American libraries, but simplified to meet the needs of the CIA. The Section maintains a well-organized procedure manual in which cataloging rules as adapted for CIA are clearly defined and each step in the handling of books carefully worked out and noted. The mission of the Catalog Section is described in the procedure manual in these words, "The Catalog Section has a triple purpose to perform in regard to books; (1) to catalog a book expeditiously so that it can be given to the requester as quickly as possible, ~~while~~ (2) providing adequate identification so that the book can be controlled while in circulation and/or branch records, and (3) providing a reference analysis of the book so that it can be found in the future". Analysis of the procedures and rules outlined in the procedure manual indicate that every effort has been made and continues to be made to modify and simplify the rules and procedures to give OCR control of its book materials for future use. The Section has an authorized T/O of 17 positions of which fifteen were filled as of the date of this

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draft. Nine full-time people catalog, classify, and assign subject headings to the books and part of the time of the Chief and the Reviser is also spent in cataloging. The staff is adequately qualified in the library arts, in languages, and subject knowledge.

A staff of nine cataloguers should be able to catalog, classify, and subject index 32,500 titles per year. This is figured at a rate of two titles per person per hour or 16 titles per working day. This workload figure is based upon performance in the former Intelligence Reference Division of the Department of State (2-1/2 titles per hour), the Yale University Library (1-1/2 titles per hour) and the present Library of the Department of State (2 titles per hour). A comparison with performance in the Library of Congress is not valid since the simplified cataloging and indexing done in the Catalog Section is not comparable to the more complex work of the Library of Congress, both in the detail and the amount of effort which goes into the description of a book and the complexities of the Library of Congress classification scheme designed for a book stock of over nine million volumes. The average government employee actually works 225 days per year or the equivalent of 1800 man hours of time. The rate of cataloging in the Catalog Section at the present time is five to six titles per cataloguer per day. On an annual basis, this equals 12,100 titles. During the 12 months period, May 1955 to April 1956, 13,287 titles were catalogued. In the year May 1956 to April 1957, 10,936 titles were catalogued.

Cost figures as established on March 5, 1957, by the Assistant Chief of the Acquisitions Branch and based on the FY ending June 30, 1956, when the Cataloging Section catalogued 11,500 titles show that each

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title in a foreign language cost \$5.55 to catalog and each title in the English language cost \$3.30, to catalog. This is an average of \$4.57 per title catalogued. In the average research library, of a fair cost figure for the cataloging of books is \$1.50 per title. If the Cataloging Section were to catalog at the rate recommended above, the cost in CIA would be \$1.62 per title. It is clear that under improved working conditions either the present staff can be reduced or that the work output can be increased by 20,000 titles.

In considering workloads, it is further interesting to note that of 803 titles catalogued in October 1956, 375 titles were in the English language, 182 in Russian, the remainder in other languages. In November 1956, 1154 titles were catalogued of which 444 were in the English language, 231 in Russian, 148 in the oriental languages and the remainder in French, German, Spanish, etc.

Satisfactory working conditions do not exist at the present time for the Catalog Section. The Section is across the street from the main card catalog and from many of the reference books necessary to do its job. A substitute card catalog was developed to help overcome this one handicap, but, unfortunately, the substitute catalog is incomplete and requires extra work to maintain. As it now operates, this Section is most dependent upon Library of Congress cataloging which information is made available to it through the printed catalog of Library of Congress cards. OCR owns but one set of the LC printed catalog and this set is divided between M Building and Riverside Stadium. Since the books stacks are also located in M Building,

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unless the cataloguer takes the time to walk across the street or to call for a book, he has no way of checking other copies or editions to reduce errors in the cataloging procedure.

Cataloguers cannot be consistent and uniform in the application of rules and procedures unless adequate provision is made for the tools they need to do the job. The importance of the availability of the LC catalog of printed cards is realized when it is pointed out that 40 percent of the books catalogued have already been catalogued by the Library of Congress and are represented in the printed catalogue.

The inadequacies of the Intelligence Subject Code further complicate the cataloging routine and make the job more time-consuming. The lack of definition of the codes and the fact that there may or may not be codes available on given subjects or too many on others, means the cataloguer must spend an extraordinary amount of time deciding where to classify a book and, in addition, what other codes or subjects should be assigned to the book. This results in a considerable amount of duplication of effort and recataloging and reclassification of books and complaints from users that like materials do not sit on the shelves together. Spot checks in the Reference Department confirms that inconsistencies do occur in the classification of books. The inadequacies of the intelligence subject code will be described elsewhere in this report but the observations of the Head of the Catalog Section made in a memorandum dated 10 January 1957 indicate the need to define the terms used in the ISC.

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"One of the problems of subject cataloging is that the subject heading list is also used as a classification system. Since various aspects of the same thing are treated as different subjects, there is often the necessity for a tedious search of the shelf-list to determine where other similar books have been placed. (e.g., a bomber as a commodity is 743.17; a bomber as part of the materiel of the armed forces is 373.1 or 461.2; research and development on a bomber is 666.202. A handbook prepared by the manufacturer on the design and operation of a bomber currently in use by the Air Force could be classified in at least three places.) A large part of the difficulty could be resolved if:

- (1) All commodities would be listed in the 700 section only.
- (2) The 200, 300, and 400 sections would contain only organizational information about the armed forces; the 500 section would be general theory of tactics and strategy and the 600 section would be pure science and general scientific and/or technical research.
- (3) The military aspects of the commodities would be reflected by slash-action codes in addition to those already used with part of the 700 section, e.g., A for Air Force, D for Navy. Research and Development would be indicated by an R; weapon theory and usage by W.
- (4) The classification of the book about a bomber would be general, e.g., V/6--743.17--B7; the subject heading would be specific and detailed, e.g., A-R-2-5/743.17,

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which would be read as: Airplanes--Bombers--Product specifications and description (including research and development) -- U. S. Air Force."

The number of unit catalog cards reproduced is excessive as compared to normal library practice. A sample taken on 2 May 1957, by the Head of the Catalog Section upon request produced these results. Two hundred forty-eight unit card stencils were prepared for fully cataloged titles and seventy-four stencils were prepared for EPPS. The number of cards per title requested of reproduction for the total of 322 book titles ranged from twenty-six to 151. The median is forty-seven and the average, sixty-two. Using the average number of cards requested as sixty, the total number of cards for this particular day's workload ordered was 19,320. On a yearly basis, the Catalog Section requested for the twelve months period, May 1955 to April 1956, 797,220 unit catalog cards for 13,287 titles cataloged; for the period May 1956 to April 1957, 656,160 unit cards were reproduced for 10,936 titles cataloged. This represents an extra workload in catalog card distribution which is not normally found in cataloging work in research libraries. It is seriously questioned as to whether it is necessary or desirable to produce and disseminate as many cards as are now distributed, and this question should be subjected to careful study.

The Catalog Section formerly prepared and distributed an accessions or distribution list. The procedures manual provides for its make-up. This list was discontinued when it was ascertained (by including in one issue a statement to the effect that the list would be discontinued unless analysts informed OCR it was needed) that it was not in demand. It is to be noted that only 187 copies were distributed regularly and since there are about 1,200 analysts and many others who might use it,

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it hardly seems that 187 copies could possibly determine the need. Further, in the interviews with analysts, an accessions list or some means of notification of new materials was an OCR service most frequently requested.

FINDINGS REQUIRING ACTION

1. The workload in the Cataloging Section is low as compared to normal research libraries, and a comparable library in the State Department which is also responsible for intelligence activities.
2. Under satisfactory working conditions, the Catalog Section could be reduced by 50 or 60 percent, or could handle 50 or 60 percent more work.
3. Cataloging is handicapped by the location of the Section and its relations to necessary tools.
4. There is inconsistency in the classification of books.
5. The cost of cataloging per title is excessive compared to normal research libraries.
6. The number of catalog cards produced and disseminated is excessive as compared to normal research libraries.
7. The present ISC cannot be applied uniformly to the classification of books and must be revised.

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REFERENCE SERVICES

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## INFORMATION SERVICE

REFERENCE BRANCH

The Reference Branch has a staff of twenty-two, with two in the Office of the Chief, three in the Selection Section, and seventeen in the Information Section. Since the work of the Selection Section is covered in the treatment of the acquisition program, it will not be discussed further at this point.

Eight of the eighteen professional staff members of the Reference Branch have no library school training, and one is only partially trained.

The Information Section has a Bibliography Unit and an Information Unit. Despite the division of the Information Section into two units, everybody does everything. The staff of the Bibliography Unit does circulation and quick reference work, and some of the staff of the Information Unit spends time on compilation of bibliographies.

During the calendar year 1956, the Reference Branch as a whole answered 24,197 reference questions, of which 15,184 were answered in the Reference Branch of the Main Library, and 9,013 were answered in the Branches. During this period, the Reference Branch had 167 man-months of professional reference staff on duty, which means that the average number of questions answered per available man-month was only about ninety-one. This means that the average output was only about one question for every two hours of available time. As noted below, the compilation of bibliographies accounts for somewhat less than one man year. If that twelve man-months or less of bibliographic work is deducted, reducing the available reference time to 155 man-months, the output still comes to something less than ninety-eight questions per man-month or less than twelve hundred per man-year.

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A current report from the Department of State Library, covering the fiscal year 1956, shows that that library, in which output is not unusually high, answered 36,532 reference questions with six positions filled in the Reference Unit. State Department Library Reference Staff, thus, answers approximately 6,100 reference questions per man-year, or more than five times as many as the CIA Reference Staff.

In this respect, it should be noted that the State Department production is low as compared with the reference departments of other libraries such as the United States Department of Agriculture, so comparison of the productivity of the Reference Branch staff with that of other libraries would show the reference output in the Agency in even worse light.

Distribution of reference questions over four years shows that only a very small percentage of questions required two hours or more, and these are the questions that are handled by the Bibliography Unit in less than one man-year of bibliographic time. Single month spot checks for the years 1954, 1955, 1956, and 1957, in the month of March, showed the following distribution of reference questions. (Type 1, are referral questions in which the user is told to go some place to get the information, and less than two minutes are spent with the user. Type 2, are questions that are answered in between two and fifteen minutes, Type 3 are questions that take fifteen minutes to two hours, and Type 4 are questions that take more than two hours, and are handled almost exclusively by the Bibliography Unit.)

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	<u>Percent #1</u>	<u>Percent #2</u>	<u>Percent #3</u>	<u>Percent #4</u>
March 1957	21	46	31	2
March 1956	29	33	34	3
March 1955	32	22	39	7
March 1954	23	35	37	5

This averages out as 25 percent of one to two minute questions, 35 percent requiring two to fifteen minutes, and 35 percent requiring fifteen minutes to two hours, with five percent (assigned a man-year of work in the Bibliography Section) requiring two hours or more.

Applying these average percentages to the total of 15,184 questions answered in the Reference Branch, this means that 3,800 required one to two minutes, approximately 5,300 on the average required two to fifteen minutes, and 5,300 required fifteen minutes to two hours. Using high figures for all of these, and assuming that Class 1 required two minutes, Class 2 averaged ten minutes, and Class 3 averaged an hour, this would total approximately 6,300 man-hours of workload for the reference questions answered in the Information Section. Assuming only 150 available hours per man-month, this comes to approximately forty-two man-months of reference load even at these generous estimates of time required per question, which is only about one-fourth of the manpower available.

Approaching it still another way, if we assume that all questions averaged out a half hour, which is clearly higher than the actual time either as recorded above or as observed, each man-month should result in approximately 300 questions-answered. This is well below the level achieved in other research libraries. Deducting the man-year for the longer bibliographical problems which account for about eight of the questions per year, the remaining 15,100 questions

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should require fifty man-months, which is only about one-third of the man-months available.

This makes it clear that the output of the staff in the Reference Branch is between one-quarter and one-half of the minimum they should be able to perform under normal conditions, i.e. that there is at least two to four times as much staff in the reference room as is required for the present level of service.

Tabulation of the "interesting requests" noted in the monthly reports of the Head of the Reference Branch to the Chief of the Library Divisions, indicates that of 131 tabulated (some were tabulated both under general library and under intelligence type questions) 103 were questions which would normally be handled in the reference room of any research library, and only twenty-eight were peculiarly intelligence-type questions. In other words, this check of the questions that were considered interesting enough to note in the monthly report, shows that approximately three-quarters of the workload is normal reference library type of material.

As a cross-check on the kinds of questions answered, each member of the Reference Staff was asked to make a record of every question handled for one week. Tabulation of these questions indicated that of the 346 questions handled by the Reference Staff during the week, 260 or 75 percent were routine general reference library questions, while 86 or 25 percent had some relationship to intelligence documents or intelligence questions. In tabulating these, if there

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was a request for a specific intelligence document, it was listed as both a general reference question, and an "intelligence question" even if the request was a routine one for a specific document by number. This week appears fairly typical if we take into account the duplication of some fifty questions under the heading of intelligence. The number of reference questions answered in the main library runs under 16,000 per year, and the elimination of the duplicates above would bring this sample to just under 16,000 on an annual basis.

Both this test and the one above indicate that much too much emphasis is placed on the intelligence nature of the work done in the library. By and large, it is a typical research library operation.

There are a number of reasons why reference work in the OCR library takes more time than it does in normal libraries. The lack of an adequate subject catalogue, delay in filing cards in area and subject catalogues, the relative unavailability of a central serial record, and other inferior tools account for part of this low production. Other factors that contribute are: lack of adequately trained staff, and failure to integrate this operation into the total operation of the OCR and of the Agency. This will be discussed further below.

A good deal is made of the amount of training time and other time taken from duties throughout OCR, but these do not amount to enough time to account for very much of the difference between potential and actual workload with the staff available. At most,

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the nonproductive time, including vacation, sick time, and training time, comes to between eleven and fifteen percent of the available time.

Analysts must rely on their own files to a very large extent, using the OCR and the intellofax runs only to supplement their own files, because the intellectual level of the service provided by OCR is inadequate. It appears essential that OCR's service be made more positive in terms of the analysts' needs if the analysts are to be relieved of the very large amount of time they must spend in maintaining their own files, which they must do because they cannot receive what they need for the current central services. There is some question as to whether either the current amount of intellectual level of service is adequate to make the analysts' reporting as good as it should be.

Reference service is provided in many different places and in many different ways. It is provided not only in the Information Unit, Reference Branch, but is done in the Bibliography Unit of the Reference Branch, in the Acquisition Branch, in FDD, in the Biographic Register, the Industrial Register, in the Graphics Register, in the Map Library, and in DD/P area, in the Circulation Branch, etc. Thus, if a man wants full information, he may have to go a half-dozen or more places to make sure he has all that is available, and will get much duplication.

Even within the Reference Branch, the analyst must know enough to ask for both a book run and an intellofax run if he wants the

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wants the material they have available. Generally, he does not get both.

The time lag in reference service, as noted below, is excessive. It is not possible to answer questions in five minutes through the intellofax system, as could be done in many cases if it were an open system. Further discussion of this system is contained in the analysis of the Documents Division and the Machine Division. It should be noted that examination of the reference questions answered in the Industrial Register indicates that a large number of them are no different than questions on which machine runs or book runs are made. Similarly, a high percentage of the questions asked of the Reference Branch are biographic reference questions, which would also have to be traced in BR and "other" sources in the Agency, in order to make sure that all the information available was given to the analyst, so there is clearly duplication of files and of effort.

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## Findings: Requiring Action

- 1 That the Information Unit is grossly overstaffed for the current work load.
- 2 That three-fourths or more of the work done in this unit is routine reference work of the type done in normal, non-intelligence research libraries.
- 3 That the total amount of service given is very low in relation to the number of analysts served and the nature of their work.
- 4 That there is too much use of untrained staff for work requiring professional competence.
- 5 That the tools available to the Information Staff are inferior to those available in most reference libraries.
- 6 That analysts must maintain personal files on a large scale because library service is poor and is not dependable.
- 7 That the analyst must go to many places to get the information that is available. He generally does not do that, so he may not be using all the information available to him in the Agency.
- 8 That there is wasteful duplication among the various sources of information in the Agency.

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~~SECRET~~THE CARD CATALOG

The Reference Branch card catalog consists of a geographic file, a subject file, an author and title file, and several miscellaneous files. All of these are printed on IBM sized cards and filed in IBM sized trays, which means that the card catalogs occupy almost twice as much space as would be occupied by normal 3 x 5 card catalogs. In addition, they extend all the way down to the floor and are inconvenient to use.

What is more serious than the space they occupy is that the amount of information that can be put on the card is limited by the fact that a certain number of the cards must provide space for punching. Since the same information is printed on all cards, the amount of information given on the catalog cards is limited, and is far below that which would appear on normal catalog cards in the average research library. This automatically limits the quality of service to a level below that provided in normal reference libraries.

Furthermore, in the case of the subject file and the area file, punched cards are used on the theory that this makes it possible to do the filing of cards in the catalog by machine. It has been found to be so uneconomical to run small numbers of cards into this large file that the filing has not been done, which could have been predicted. The cards have not been filed into the main file of the catalog since July of 1956, and this means that a supplementary file has to be kept and that every search requires looking in the main file and in the supplementary file. Furthermore, even the interfiling of the current cards in the supplementary file is not kept up to date.

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When filing in the area file and the subject file by machine, only the main headings and main subjects are used, and therefore all of the cards under the headings are drop-filed without regard to author, title or other sub-divisions. This means that every time the subject file or the area file is used, the reference librarian or analyst must read through all the cards under a broad heading in order to find out whether a particular book is there, or whether a book dealing with a particular aspect of a subject is there.

Since the cards are filed horizontally and are printed vertically, it is necessary to turn the cards up to read them in each case.

In making tape runs of the cards from the area or subject files, the cards are removed from the files, the files are not intact and one can never be sure in consulting the files that he is getting everything in OCR. While a card-out slip is supposed to be provided, that does not change the fact that the cards are in the Machine Division being Intellofaxed and cannot be consulted. The author-title file is maintained completely by hand and is not punched even though the stock used is IBM stock.

Since the ISC code is used in filing in the subject and area files, and since the ISC code is changed from time to time, without going back and changing the cataloging that has been done before, it is not possible to be sure that all the material in the catalog is found under any given subject or area code.

Since there is no approach by author or title to material in the Intellofax system, the only way reference librarians can locate a

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particular document is to have an Intellofax run made. This is a very wasteful method for identifying or locating a particular document on a particular subject. It may mean running hundreds or even thousands of cards and then going through them by hand to see if a particular document is available.

Inadequacies of the machine system, which had not been thought through in designing of the system, have definitely added costs to every reference question answered in terms of added staff time, and, in addition, delays service to the analyst.

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FINDINGS REQUIRING ACTION

1. The card catalogs are bulky, inefficient, and are badly maintained.
2. The card catalogs provide a lower level of intellectual content than is customary in research libraries.
3. Failure to change older material when classification numbers are changed, plus the pulling of cards for book runs, make use of the card catalog uncertain in terms of retrieval of material actually available in the library.
4. Identifying an individual document available in OCR is slow, expensive and uncertain.

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**SECRET**INTELLOFAX RETRIEVAL

While the intellofax questions only make up between ten and fifteen percent of the total number of questions answered in the Information Section, they result in a large percentage of the total number of references given to users. Numerous complaints by analysts about the quality and speed of the intellofax service during the first week of this survey, indicated the need for careful examination of the effectiveness of this program.

As a first step, all the requests for intellofax runs completed from January through June, 1956, were tabulated as to the elapsed time between the receipt of the request and delivery of the completed intellofax run.

A ten percent sample of the intellofax runs completed from January through June gave the following distribution of time required.

<u>Elapsed Time</u>	<u>Number Completed</u>	<u>Percent (Approx.)</u>
1 day	1	less than 1
3 days	5	4 - %
4 days	3	2 1/2
5 days	10	9
6 days	11	9
7 days	7	6
8 days	14	11
9 days	12	10 -
10 days	14	11
11 days	12	10 -

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<u>Elapsed Time</u>	<u>Number Completed</u>	<u>Percent (Approx.)</u>
12 days	8	7
13 days	5	4
14 days	7	6
two weeks to four weeks	17	13 1/2
<b>TOTAL</b>	<b>126</b>	

This analysis showed that seventeen of the 126 questions required from two to four weeks, and 109, or 87% were completed in two weeks or less. The median time was nine days. It should be noted that calendar days were used in this study rather than working days, and weekends would reduce these times by the number of non-working days that happen to fall within the total time span.

As a further check on the speed of service, one hundred intellofax runs completed in October and one hundred completed in November were checked. In each case, the first hundred that had sufficient data to be useful were used. Since there were about 360 runs in these two months, this gave us a sample of about 40% of the total.

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 Tabulating these questions by the number/hours or days from initiation of the request to supply of the run:

0	was answered in less than two hours	
10	required two to four hours	- 5%
80	took four hours to two days	40%
24	took two to three days	12%

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57	took three to five days	28.5%
20	took six to ten days	10%
9	took eleven days or more	4.5%
200		100%

These two studies indicate that the claims of some analysts that intellofax cannot be used unless they have several months for the study are not generally justifiable in terms of elapsed time in obtaining a run, but may be when the time required for selecting and obtaining the pertinent material from the raw mass supplied is included.

One of the main attributes claimed for the machine system is its ability to pull out material that is classified as top secret or secret, etc. The same two hundred items were tabulated by the level of their security requirements. It was found that 179 required everything up to and including top secret; this was 90% of the total. The other twenty-one required material to and including secret; thus constituted 10% of the total. Runs are rechecked twice by hand for security classification as the system now operates.

In order to determine how far back the material was requested, these two hundred items were tabulated by the length of the period requested to be searched in the Intellofax run.

27	went back one year or less, equals	13.5%
27	went back <u>two years or less</u> , equals	13.5%
25	went back three years or less, at	12.5%
9	called for four years or less, at	4.5%

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23 called for five years or less, equals 11.5%

and 89 asked for six years or more, equals 44.5%

It is very interesting to note that 44% of the requests asked for material more than five years old, which the Intellofax system is not able to supply. The cards for the older Intellofax materials have been sent to storage, where it is reported they have become unusable. They were filmed before they went, but checking in the Circulation Department which has the film, as well as with the Machine Division, which could theoretically call the cards back from storage, shows that the film had never been consulted, nor have the cards ever been brought back from storage. Thus, analysts who think they are getting material more than five or six years old from this system are trusting in something that does not in fact happen.

Another question that came up in relation to the Intellofax system was the complexity and the relationships of subjects, and the need for complex and multiple subject headings.

While more will be said on this below, the two hundred items noted above were tabulated to determine how many subjects each one of them called for in the search.

77 were answered by a single subject, equals 38.5%

28 were answered by two subjects, equals 14%

28 were answered by three subjects, equals 14%

13 were answered by four subjects, equals 6.5%

8 required the use of five subjects, equals 4%

and 46 required six subjects or more, equals 23%

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This averages less than four subjects per search, which is below the standard of common indexing services, such as Chemical Abstracts.

As will be noted below, many of the additional subjects do not provide material, but are asked for merely because the I.S.C. is not positive enough to permit any degree of assurance in asking for material under any given subject.

Another claimed attribute of the Intellofax system is its ability to reproduce the cards automatically instead of having librarians copy the cards. In order to determine how important this is, since frequently very long lists are referred to in conversation about the Intellofax system, the number of references provided by these two hundred searches were tabulated. The spread of number of references produced per search is shown below:

<u>References</u>	<u>Number of Searches</u>	<u>Percent</u>
0	2	1
1-5	17	8.5
6-10	12	6.0
11-25	20	10
26-100	44	22
101 or more	105	52.5

At the normal rate of hand copying of these short citations, based on observation of the work of one reference assistant, two citations can be copied per minute. Thus, about half of the searches would require thirty-five or forty minutes of handwriting of citations,

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or less, if they were hand-copied as is done from a normal card catalog. They could, of course, be photographed at much higher speed.

The question of the longer runs is one that will be taken up in relationship to the amount of useful material obtained in these longer runs, and the amount of material given on the cards to help the librarian, or the searcher, select cards which are to be copied and documents that must be examined.

Analysis of the same two hundred items showed that there is a close relationship between priority of service required and the substitution of card service for Intellofax service. Card service was requested for fifty-five of these runs, or 27 1/2%, and tape service was requested for the other one hundred forty-five, or 72.5%. Generally, the card service was used when there was a crash or a priority request, so when a tape was supplied, very little service was provided in less than twenty-four to forty-eight hours.

A second analysis of the number of references supplied by each Intellofax run was made by analysing 228 runs in January 1956, and 198 runs in June 1956.

The results of the January runs were as follows:

<u>Number of References</u>	<u>Number of Intellofax Runs</u>
0	6
1-5	17
6-10	16
11-25	23

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<u>Number of References</u>	<u>Number of Intellofax Runs</u>
26-50	18
51-100	35
101-200	35
201-500	34
501-1000	23
over 1000	21
Total 228	

Thus in January of 1956, 115 of the 228 intellofax runs involved selection and copying of one hundred or fewer references.

The same data for June 1956 were as follows:

<u>Number of References</u>	<u>Number of Intellofax Runs</u>
0	7
1-5	11
6-10	6
11-25	20
26-50	29
51-100	22
101-200	24
201-500	32
501-1000	20
over 1000	17
	198

Ninety-five or almost half of these, too, required locating and copying of a hundred references or less.

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In both cases the time required for non-critical selection from published lists under specific headings would apply. The standard used for this at Engineering Societies' Library and elsewhere, where study has been given to compilation of bulk bibliographies, indicates that we could expect at least 12 per hour including locating the original book and verification of the reference. In the present case since references are not examined and do not have to be located, at least 50 per hour should result. This means that, taking the two months together, 13 of the questions, i.e. about 3%, would take only long enough to look in the catalog under the subject heading to find that there was nothing there, a matter of five minutes at most.

50 would take 10 minutes or less, 43 would take a half-hour or less, 47 would take an hour or less, 57 would be between one hour and two hours, 69 would require two to four hours, 66 would require four to ten hours, and 81 would require three days to a week each. It should be noted that if these cards were available in bibliographies or normal card catalogs, assuming no improvement over the present low quality of selection, a very large proportion could be supplied within an hour or one day, and very few would take two or three days or more.

In addition to the complaints about slowness of service, there were many complaints about the quality of service resulting from the machine runs. This was investigated in several ways, as follows:

In the desk audit of the Information Unit of the Reference Branch it was found that all tapes are screened for security classification. Further investigation found that this was repetition of the same

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screening done manually in the Machine Division. As noted above, one of the advantages of the machines is suppose to be that it does the sorting by security classification.

It should be noted that the number of machine runs that can be completed per day is relatively low. It averages only about 10 runs per day and when long runs or special complications occur the runs may go down to two or three per day. For example, on the four days ending 27 March 1956, the Machine Division completed 3, 2, 2, and 3 runs per day respectively.

The cases that follow point up some of the intellectual and mechanical problems of the Intellofax system:

Case 1

Run #408 was requested for Sino-Soviet Bloc imports and export of nickel in all forms. The requester asked for material from 1954 to date. Only about two minutes were required to code since nickel and alloys have exact numbers and a specific action code, and there is one code for the Bloc. ~~The run was~~ requested on 15 March and was completed on 18 March with 194 references supplied. The analyst for whom the work was done checked the list and found 67 pertinent documents in her own file that were not on the tape. The reference person who had done the codings sampled several of the references the analyst brought in and found that they might conceivably have been missed because he had not asked for "offers to sell" and "procurement" and "plan fulfillment."

Since it was possible that some of this material had been missed because these additional codes had not been asked for, another run was

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made including all the previous numbers and the codes for "alloys", "procurement", "offers to sell" and the others above.

This was run #499, which was made on the second of April and returned on 4 April. It was given A priority and cards were requested, and it was also requested that duplicates be left in. Two hundred and sixty-seven cards were received, of which 111 were duplicates leaving only 150.

Thus, the second run, asking for the original codes, plus additional codes, obtained 44 fewer cards than were obtained on the original run with less coding.

A third run was therefore requested; this was run #526. This run gave 197 additional cards including duplicates. In order to make sure that additional cards were obtained, the original cards were held out when this run was asked for. All of these were turned over to the analyst who requested the material. Conference with the analyst followed this, and disclosed that some 60 of the original 67 missing items were still not found by the runs.

The fact that runs do not always produce the same documents when they are repeated is illustrated by several other cases, but still another fault was demonstrated by the above runs. Actually, the analyst wanted only East-West trade and the ISC did not differentiate between East-East trade and East-West trade, so a great deal of internal Bloc trade was supplied in the machine run. This not only was of no use to the analyst, it required a considerable amount of the analyst's time to eliminate the non-pertinent material.

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Additional examples of the non-uniformity of machine runs are the following:

Case 2

On February 27th, a machine run was requested on thirteen subjects for the area 45-M. This resulted in 140 cards, and after the duplicates were removed, 124 were put on tape. On 15 March the same run was made again for the same agency with the addition of four more numbers, plus one large group of numbers, and this second run, including the original numbers plus the additional numbers, gave only 89 cards instead of the original 124. A third rerun supplied 166 cards.

Case 3

Machine run #1724, an area run on Algeria, was returned from the Machine Division on 3 August 1956 and gave a total of 376 references. On 10 August 1956 the same branch requested the same run for the same requester, and machine run #1800 fulfilling this request provided only 272 references. Thus, 104 references that appeared on the original run, did not appear on the rerun of the identical codes.

Case 4

Run #487 (highways in Algeria) not a single card resulted. On a rerun some 60 cards showed up.

Case 5

On 30 January 1956 run #129, which is a rerun of 116, produced 124 references instead of 54, but there were 193 references entered as being in the class searched as of 31 January 1957.

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Case 6

On 11 January 1957, run #35, which is a rerun of #32, produced no references, whereas run #32 had produced 130 with fewer codes. All the run #32 codes were repeated in run #35.

Case 7

Run #490 on 8 April 1957 repeated run #480 including all the old codes of the earlier search and some additional codes, yet run #480 gave 80 references and #490 gave only 22.

Case 8

Run #438 of 21 March 1957 was another rerun including all the old codes plus new ones. The rerun gave no references while the original gave 45.

Case 9

Run #302 of 20 February 1957 which gave all the codes of run #245 plus others, gave no references while run #245 did produce one.

Case 10

Run #293 was a rerun of run #284. The rerun used fewer subject codes but reversed area codes and obtained 179 references instead of the original output of only 16 references from more codes.

These examples could be multiplied but they seem sufficient to cast serious doubt on the reliability of the machine system as currently operated.

Investigation of this in the Machine Division indicates the probable source of error, but that will be covered in the discussion of the Machine Division.

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To check the adequacy of encoding, which instructs the Machine Division how to make runs, 11 questions were selected at random from the Intellofax runs that had been made in past months. These were given to the head of Reference Branch, who gave one to each of the reference assistants on duty that day. Each of these was recoded, and in no case did the new codes requested correspond with those in the original coding.

Two further checks on input into the Intellofax system were made. One of these was a recheck on a search that had been done before, and the second was a made-up question that was selected in consultation with the Chief of the Reference Branch.

A rerun on a question that had been run before, was made on Intellofax run 555, which had been done for EIC. As a first step, the question was reviewed with the person who had originally handled it. This determined what information had been obtained from the requester and how the code had been arrived at. In this case, it had been arrived at in consultation with the training officer of the Analysis Branch and should, therefore, represent as good a code as could be achieved.

The question was put to each of the successive people in the Information Unit with whom it was discussed, including one very new person as well as several experienced staff members. The question called for a tape run on the ruble-dollar ratio for the production of heavy machinery in 1950 in the U.S.S.R.

When the original request came in, the contact person in EIC asked for a tape run on ruble-dollar ratio for heavy machinery and equipment in 1950. Priority Rush. The information assistant specifically asked

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her whether she wanted a tape run or information. The answer was that she wanted a tape run. Since it was a rush request, the assistant suggested she ask for cards, and cards were requested. Then, in consultation with the training officer in Analysis Branch, the coding was done. In this case, the assistant remembered that the code book was different up to December 1953, so he looked at the old pages of codes and came up with the old form. As a result of this run, the assistant received 206 cards and he selected ten probables for the overall problem with about sixty on specific industries. The EIC contact person then asked for a tape of the cards, so the whole run of 206 cards was made on tape, with those pre-selected by the Reference Assistant at the beginning of the tape.

The question was given to six different staff members, one of whom had had a month in Analysis Branch, and had only been in the Information Unit for a week; the others had varying degrees of experience. The question was asked in the form in which it came in, and any clarification requested by an Information Staff member was supplied up to the level of information originally received at the reference end. No two staff members came up with the same coding.

One of the most obvious errors was the use of the new slashes instead of the old slashes. The staff did not all remember that the slash codes had been changed. When wrong slashes for older materials are used, the material will be missed in the Intellofax run, so in these cases a complete miss would have resulted.

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Since there had been repeated statements that the Reference people did not ask enough questions to know what they were looking for, this was checked several ways, but particularly by a made-up intellofax question which asked for railroads in Russia, when what was really wanted was the state of the fixed physical facilities of the railroad between Tiflis and Baku. This was first coded by the Chief of the Reference Branch, and in each case, the Reference Librarian was asked for an intellofax run on "railroads in Russia." In all cases except one, they asked the necessary questions to reduce this to what was actually wanted. Nevertheless, even after it was reduced to what was wanted, there were no two sets of coded instructions that agreed with each other, and there were substantive differences in all of them. This indicates that the coding scheme is so complex and non-rational that it is not possible to get uniform answers from two different people coding intellofax runs. This is clearly not attributable to failure of the Reference Librarian to find out what is really wanted, because in all cases but one, the Reference Librarian succeeded in pulling out of the requestor the actual material wanted.

These three tests involved twenty-plus comparisons of encoding, with no case in which the same subject was encoded twice in the same ISC terms.

The results of a number of tape runs were checked with users. The tape run on the ruble-dollar ratio (run #555 noted above) had been requested for EIC by  a contact person

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for EIC. Conference with [redacted] both of whom went over the tape when it was received, indicated that it was intended for use for review of an external research contract. After pre-selection of materials [redacted] it was to be sent on to the Subcommittee on General Economic Analysis. They had sent the material they could find on this subject last year, so they were now only sending additional material. Actually, in conference with the requestors, it was found that they had intended to ask for material published in 1955 - 1956 that deals with the year 1950. Either they had not asked the question properly, or had not been understood, and a run for 1951 had been made.

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This meant that the material received was all worthless in terms of the original intention of the requester. However, since they had it, [redacted] went through the material. They selected seven items by title to send on to the Subcommittee. None of these seven were among the materials pre-selected by the Reference Assistant and put in the front of the list, and check of the titles they selected with another analyst indicated that the competence of their selection was open to serious question because of the very limited information in the intellofax entries.

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All in all, in terms of the original request, this one was a complete waste of time and money. Even the seven documents for

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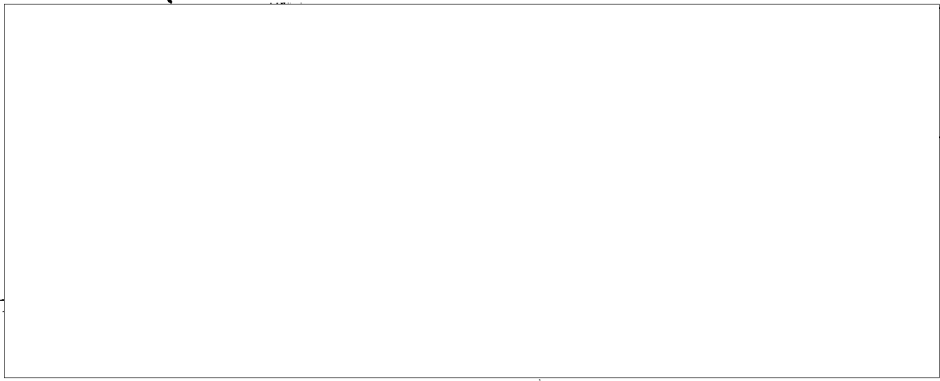
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the wrong year, which were referred to the subcommittee, may or may not ever have been examined, and we have no indication that they were really pertinent.

This indicates a fundamental policy question that needs consideration over and above the question of library service, even though it is related to it. Here we have two people who are trying to make a somewhat higher bibliographical cut because the OCR reference service does not provide it. Since the titles do not give enough information, even if the run were suitable, a good many pertinent items might never get to the analysts who are to consider the substantive questions, while the items actually selected, as in this case, may be worthless. This is not solely a reference service question. There is a question of whether there may not be a major investment in liaison people or sub-analysts to do over again, in a good many of the research areas, what OCR should do properly in the first place.

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Conference with the Geography Division indicated that they asked for all the material in the intellofax file back to 1953 dealing with Northern Sumatra. They found that Northern Sumatra was defined subjectively, and was not tied in to any map, and therefore, the material could not be supplied in useful form. To overcome inadequacies which they described as (a) non-uniform application and (b) inadequate code for their purposes, several people in the group consulted in the Geography Division indicated that they bypassed the intellofax by doing it manually, i.e., had the major groups of cards pulled and ran through the cards to select items, much as they would in a card catalogue, and then went to the aperture cards to consult the materials.

While these examples could be multiplied, they show clearly that on the retrieval end, there are serious doubts as to whether the intellofax system as presently operated, is reliable enough so that the analyst can depend upon it instead of on his own files.

All the tests showed failure to code question uniformly in submitting codes for intellofax runs. The service is slow as compared with normal library services, and both the librarian and the analyst are working blindly since the code book does not give enough information about how the codes are used to permit selection of the right code, and there is no other way to get at the material.

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Another case of this type which illustrates this particularly well, was a run on a very narrow subject [redacted] done for OSI in May of 1956. This was request #994, and it involved running forty-four codes, and all of their sub-divisions in seven of the forty-four codes. This resulted in a tape run of 11,640 references. This was checked with the person in the Medical Division of OSI who requested it, and he reported that he looked at between four hundred and five hundred of the 11,600 and actually used about two hundred. In addition, he used forty-five documents from his own file that did not appear among the 11,640 references obtained. He said that the reason that it was necessary to run all these codes is that he could not tell where the information he wanted might possibly be, and that if he had been sure of the meaning of the code numbers, the tape run could have been cut to two thousand or fewer. It should be noted here that 11,200, approximately, of these 11,640 references were never looked at, but the whole tape had to be gone through by an analyst to determine from their titles, and with no other information, which four or five hundred were worth looking at.

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It should also be noted that 20% of the material that went into the final report [redacted] came from other sources and did not appear in the tape.

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It would appear that the level of quality of reference service provided through intellofax is the same as if a typist were set to work copying all of the references under broad headings from standard

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indexes without using any judgment about whether they are pertinent or not, except insofar as they fit under very broad headings. This is lower quality of reference service than is normally provided in reasonably good reference and research libraries, where the librarian at least pre-selects the items under the broad headings which may conceivably have some relationship to what is actually sought, and generally does this by examination of the originals rather than from brief title entries alone.

Findings Requiring Action

1. Intellofax runs answer only ten to fifteen per cent of the reference questions handled in the Reference Branch.
2. Intellofax service is very slow for most of the questions handled, as compared with conventional means.
3. The need to make intellofax runs to find out whether the Agency has a particular document is exceedingly slow, untrustworthy, and costly as compared with conventional methods.
4. The non-availability of the older intellofax cards means that the total investment in intellofax input is gone after five to six years, and there is no useable way to get at older materials.

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5. The encoding of intellofax runs is inconsistent and unreliable.
6. The information given on intellofax tapes is inadequate for reliable selection of pertinent documents.
7. The intellectual level of the intellofax system is low.
8. The intellofax system does not always give the same data for repeated runs on the same codes.
9. The intellofax system does not retrieve all the material known to the analyst, which should be in the system.

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REGISTERS

The Biographic and Industrial Registers have not been studied with the view of determining whether refinement of operations or management should be recommended, but rather as a part of the reference facility of CIA to see how they can best support the research activities which center in OCR. The analysts in the Agency are interested in reducing the number of places the consumer must go for information in the Agency. The questions answered in the Registers generally are no different from those the Reference Librarians answer every day, and a single information center is essential. The important thing is to have a reference staff familiar with all of the resources of the Agency, and able to bring the consumer and the information he seeks together as quickly as possible.

Eventually, the Registers should be studied more closely to identify and ~~not~~ eliminate such duplication of activity as may exist. For example, Sino-Soviet documents are now examined twice - by the analyst and by the Products Classification unit for coding strategic ~~materials~~ materials. It may be possible to bring out the necessary information with one reading. Documents Division presently duplicates some of the Industrial Register's work on plant information and products. There is evidence also of some overlapping of activities among Graphics Register, Industrial Register and Cartographic Division of ORR. Closer scrutiny may disclose that all of this duplication is justified. It is only mentioned here in passing because it may be desirable, when all of these activities are brought in closer proximity to each other in the new building, to take a careful look at the internal operation of each of them.

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BIBLIOGRAPHY UNIT

The Bibliography Unit produces approximately eighty bibliographies a year. Bibliographies are compiled by three to four people in the Bibliography Unit, and by most of the members of the reference staff. Furthermore, all the people in the Bibliography Unit do circulation work, reference work, errand boy work, etc. Study of the Bibliographies compiled over the last year revealed that the actual bibliographic time amounted to approximately 1,200 to 1,300 man-hours, including all the bibliographic time spent in the bibliography and reference units. This is less than one man year of actual bibliographic service.

The quality of bibliographies prepared is very low. In the majority of cases, there are no annotations and the bibliographies are merely copied out of the CIA catalog and the Library of Congress catalog, plus possible the State Department catalog, without reference to the original items and without annotations.

Even in the case of annotated bibliographies, the annotations may be copied from other sources, such as the Book Review Digest without examination of the book.

While this may be adequate for the need in a few cases, it is not a very high order of bibliographical work, nor does it require very skilled bibliographers. It is below the level of quality or the intellectual precision that is normally achieved in compiling special purpose bibliographies in reference or research libraries. Actually most of these should be called selected reading lists rather than bibliographies.

FINDINGS REQUIRING ACTION

The total amount of bibliographic work performed is low and is of low quality. Little of it as currently performed requires special competence.

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INDEXING OF FBIS MATERIALS

Discussion with analysts revealed great interest in FBIS material and considerable concern that the FBIS materials are not available through any indexing services.

As a check on the intensity of this need, a series of OIS and ORR studies were analyzed further to determine the percentage of FBIS material cited. Of the literature cited in the OIS studies, just under thirteen percent of all references came from FBIS reports. Two hundred fifty-nine of the two hundred eighty-two FBIS items cited (92%) were dated 1954 or later.

In the series of ORR reports, in which the analysis gave a finer breakdown by source and date, it was found that 14% of all references cited came from FBIS. This source was exceeded only by the open literature, and was cited almost twice as frequently as the next lower source. Material published during the last five years made up 1,210 of 1,445 articles cited, i.e., almost 84% of all the literature cited. It was broken down as follows:

<u>Age of Publication</u>	<u>Total Publications Cited</u>	<u>FBIS</u>	<u>Percent FBIS</u>
Less than 3 months	72	7	10
3 months - 1 year	533	145	27 -
1 - 3 years	445	41	10 -
3 - 5 years	161	8	5

Thus, there appears to be a definite relationship between the age of FBIS materials and their use in research reports. On the face of it, it would appear that a retrieval system that would make the FBIS materials readily available for the first year of their existence would be of utmost

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importance and this would be adequate. However, it should be noted that this is the pattern that exists despite or perhaps because of the fact that these materials are not indexed so that they can not be located, and if they were indexed they might continue to be useful in larger measure for a longer period.

It is recommended that a start towards making the FBIS material available be made as soon as possible by quick indexing of the facts and figures in the FBIS materials in the enlarged IPI, insofar as they are not covered in the Registers.

Despite the high level of use of the FBIS materials, it is surprising to note that no copies of this are available in the reference room (They are filed in the IAC room under the ruling that all hard copies belong in that collection, which indicates the extent to which form rules over content of materials or service needs in OCR.)

FINDINGS REQUIRING ACTION

1. The FBIS reports are one of the very important sources used in creating intelligence reports.
2. The content of FBIS reports are now indexed by hundreds of analysts because there is no central index.

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LENDING SERVICE

The Circulation Branch had 53 staff members at the time it was visited.

CONTROL SECTION

The Control Section has a Branch Library Unit. This involves eight people at four branches plus the chief of the Section. While the Branch Libraries were all visited that will be considered in a separate section.

The Search Unit of thirteen people receives all incoming requests from Agency people for inter-library loan from other agencies for CIA material, and for book purchase requests prepared on the Book Purchase Form by people in the Agency. This Search Unit is divided into a Documents Unit and a Book Unit. The Documents Unit includes ten people including the Chief of the Search Unit and three are in the Book Unit.

As a first step the loan requests are dated and time stamped and sorted according to whether they are for Agency people or for Inter-Library loan. They are also sorted by source and availability of the information on the request, into major batches:

- a. Available in microfilm
- b. State Documents
- c. Defense Documents
- d. Air Intelligence Agencies
- e. IAC hard copy collection
- f. Book and Periodical Desk

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A request for hard copies is sent to the IAC Room for loan.  
Requests for microfilm enlargements are sent to the Copy Unit.

Requests for State, Defense and other Intelligence agency documents are put into boxes for the searchers.

In searching to identify the documents requested it is necessary for the searchers to go to the Source Card File maintained by the IAC Unit, to the IPI, to the Economic Intelligence Survey, to the OCR card catalogue, and to other bibliographical sources. This is reference work.

It was estimated that about a tenth of the material searched is not found in the Source Card File.

The Loan Unit also maintains a Post Report File which partially duplicates other records in other parts of the Agency. It maintains a delay file which is theoretically to be checked monthly but actually is not.

The inter-library loan unit does not borrow or otherwise obtain copies from other than CIA for outside agencies, and follows the third agency rule in general on loans and photostats for outside agencies. The exception is that when CIA has the only copy of a document or enclosure or if the third agency is not in Washington then consideration is given to providing copies to outside agencies. This policy might well be liberalized

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When inter-library loan requests are received they are checked to determine whether they are in OCR or available from another Library. These run to about fifty a day according to the estimate of the staff member who was doing it. This is reference work.

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A tracer file is maintained since some of the older materials cause difficulty. In addition, a suspense file is maintained for material in the IAC room, which is on routing and for which a reserve card is entered in the Agency. A considerable amount of time is spent on looking up snags for Agency personnel. When material is borrowed from other agencies, some of it is sent to the Machine Division for microfilming and is added to the collection in microfilm form.

In those cases in which the IAC room reports that a document is charged out, it can be recalled from the borrower and sometimes is. The searching done to determine where the publication should be borrowed, is checked in every case by the Chief of the Unit. This would not be necessary if done by trained staff in the Information Unit.

Three people work on problems received in the form of purchase order requests. This duplicates work done in the Acquisition Division.

The Services Section of the Circulation Branch includes the Inter-Library Loan unit with eight people, the Intelligence Agencies Collection with five, the Copy Section with eight, and the Book and Periodical Desk with six.

The Inter-Library Loan Unit receives all its requests from the Search Unit. The requests sent to it are all for material that is not available in the Agency. The pile of requests is sorted once or twice a week - rarely is it sorted less frequently than once a week, but on occasion it piles up for more than a week before it is handled the first time in the Inter-Library Loan Unit. Unless something is clearly marked rush it may not be handled at all for a week before it is even sorted for initiation of the inter-library loan operation.

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Follow-up on old requests when done requires the time of one person for one and a half weeks, including the preparation of tracer forms, and that had not been done for a number of months.

In order to check on the elapsed time in obtaining materials on inter-library loan, the first slip in each hundred of the control numbers in the file were checked for the elapsed time between the time they were requested and the time they were filled. This was done in the filled file which covered all of the orders filled from the beginning of the inter-library loan service. The hundreds were selected at random. This tabulation showed that only five of the inter-library loan requests of the fifty so obtained were filled in a month or less. Sixteen required two months, 15 required three months, five required four months, two took five months, four took six months and there were one each for seven, eight, and nine months. The median was approximately three months and the average number of months required to fill a request was somewhat over five.

A check of the filmable vs. nonfilmable material as defined above was made for the period December to February and it was found that of 1274 items 203 were sent over to be filmed as compared with 1071 which were considered nonfilmable. This means that only about twenty percent of the material borrowed on inter-library loan goes into the aperture card system or into 35 mm. film.

The loan period is supposed to be two weeks and is so stamped in the file, but there is no follow-up on these loans except where follow-up is requested by the lending agency. This has caused considerable difficulties with lending agencies.

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When the document is returned, it is discharged from the numerical file and the name file and is returned to the lending agency. The date of return is recorded and filed in the dead file. Since all material is also logged, the dead file serves no purpose.

A spot check of the loan records of material loaned to other agencies indicates a normal lapsed time of a month or more from the time of initiation of the inter-library loan form and a lapse of about two weeks after receipt in the Agency, so a considerable portion of total time elapses before the request is logged into OCR. Very few were serviced in a week or less but these were very few.

Since all incoming inter-library loan requests from other agencies have to be handled by the Search Unit  the handling in the inter-library loan unit appears to add nothing of value.

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Charging out of material obtained under inter-library loan to people in the Agency is done once a week. This takes about two days of one person, of which a half day is filing receipts in the dead file and pulling of copies in the outstanding file. It also delays the sending out of material received from other agencies by several days.

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~~SECRET~~~~COMPONENT OF NON-IAC MATERIALS~~

The primary source of non-IAC materials is the Library of Congress from which approximately thirty-five to forty requests are filled per day. About one-hundred requests per week go to all other agencies, of which State Department is the biggest source, and is said to be very slow. A check of the outstanding requests from State Department indicated requests that were months old with no reply.

About 10 percent of the requests, i.e. six to eight requests per day, are rush.

There are seven delay files maintained in this unit:

1. Library of Congress copies purchased through PPO's.
2. Monthly List of Russian Accessions.
3. Eastern European Accession Lists.
4. State Department delay file.
5. Other Libraries delay file.
6. Air Information Division, Library of Congress.
7. Regular Library of Congress delay.

Renewals can be arranged at Library of Congress by writing a memorandum requesting it, but that is discouraged because of alleged lack of staff in the unit to handle the letter writing.

This unit also keeps the postage stamp account and types transmittal letters when returning publications.

Determination of where materials are to be borrowed is made by this Unit. This requires trained staff. The Unit does not have people competent to do this in all cases. One example checked was picked

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at random. It happened to be the Partisan Review for the Fall of 1955, which was requested October 23, 1956. It was reported at the bindery by the Library of Congress on November 5th and 9th, 1956. State Department Library was asked to supply it on December 11th, on December 20th, and also again on March 21st. It still had not been obtained as of March 22nd, 1957. However, the Union List of Serials showed fifty-six libraries holding it, including New York Public, from which a photoprint could have been obtained immediately, because books in the New York Public Library do not circulate.

A check of requests sent to Library of Congress between March 18th and 21st showed that there was considerable delay between the initiation of the request and the transmission of the request to the Library of Congress. Of the requests sent to Library of Congress on March 18th, one originated on March 1st, one on March 4th, one on March 5th, one on March 6th, two on March 7th, three on March 8th, and four on March 11th.

Of the requests sent to the Library of Congress for the first time on March 19th, six were initiated between March 12th and 18th, three were two weeks old; eight originated in February; six in January; one in December; two in October; one in August; and one in July of 1956.

Of the material first sent to the Library of Congress on March 20th, two were a week old; two were two and a half to three weeks old; seven were three weeks old; two originated in February; and one originated in December of 1956.

Of the requests first sent to the Library of Congress on March 21st, one originated in January; two in February; two were within one and two weeks old; and three were a week old.

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As a further check on effectiveness of service obtained by inter-Library Loan from the Library of Congress, the current charges for books obtained from the Library of Congress were checked, taking fifty Library of Congress items at random in the current charge file. The date of request was noted and also the date the books were charged out. This tabulation showed: one was supplied in one day; fourteen required a week; twenty-one were supplied in two to three weeks; three took a month; four took two months; three took four months; two took six months; one took nine months and one took ten months. The median time for supplying these books on loan from Library of Congress was about three weeks, with about twenty-eight requiring three weeks or more.

Since this covered only books actually supplied, it is skewed towards the prompter service level. If the outstanding requests, which have been in the files for a good many months were counted in, that would run the median time of acquiring books up to the two-or-three month level. Eight man-years in the Inter-Library Loan Unit handled some 18,800 inter-library loans during the calendar year of 1956. This compares with one man-year at the State Department Library to handle over 15,000 inter-library loans in fiscal year 1956.

#### COPY SECTION

The Copy Section files all filmed copies, whether in 16 mm film, 35 mm film, or aperture cards, and services these collections. Service is provided in three ways. The bulk of service is provided by enlarging prints from the aperture cards. This accounts for some 43,000 items per year. In addition, approximately 12,000 items used are read in a viewing machine, and about 4,000 are transmitted elsewhere to be copied or enlarged, either in the Machine Division  This means

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that there is a work load of filing of the new aperture cards as received, plus pulling of some 59,000 cards per year and refiling them.--All this is done manually. In addition, the copies printed require the use of the expeditors, the checking of references copied to make sure that the copying is correct and complete, transmission of the copies to the requester and re-filing of the cards.

In the process of enlargement printing, a good many inserts have been encountered which were mounted too high in the aperture to be copied. These are pulled out and taped back in. A good many others have been cut off in the insertion, and this results in inadequate data or unreadable prints as sections are cut off and nothing can be supplied to the user except these imperfect copies. In many other cases the quality of the film produced from the poor original is so bad that it is not possible to make legible copies.

Furthermore, the enlargement ratio on the expeditors has been set smaller than the reduction ratio in the original filming. Particularly in the case of poor copy, this makes the material received by the analyst very difficult to read. A very large part of the material supplied is hard to use and some of it is unusable.

In an attempt to make sure that the text fits into the aperture the Machine Division has recently gone to a higher reduction ratio. In view of the fact that the enlargement ratio has not been changed, this will mean even smaller type in the end product given to the analyst. In view of the poor quality of the photographs, this will result in even more difficulty in using the enlargement print.

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Examination of the material being produced in the expeditors in the form of enlargement prints indicates that there is no uniform rule as to what goes into insert cards and what does not. Almost anything can get into aperture card form. A good deal of open material that is generally available has been reproduced in aperture cards. One of the examples checked is a printed report of the Phillips Research Laboratory, which took thirty aperture cards. It was 235 pages long. The Union List of Serials showed that this publication is available in more than ninety libraries in the United States, including five in the District of Columbia, and it should not be necessary to put it into aperture cards and then make enlargement prints to obtain it.

Some 12,000 articles are viewed each year on the microfilm reading machines in the Copying Unit. These include both aperture cards and rolls of film.

In earlier conversations with analysts, they complained about the condition of the reading machines and objected to using them because the quality of the reproduction was poor. The reading machines were examined. The three Flo-Films were found to have scratched glass flats and their mirrors were deteriorated. The quality of the image was not as good as it should be for this reason. Two of the Film-Sorts had bulbs burned out and the one Film-Sort which was in operating condition, had its flats gummed up from scotch tape used to insert the film in the aperture.

It is necessary to clean the flats regularly on all of the reading machines using aperture cards because they do get leakage of scotch tape from the aperture cards. This is bad enough to make the inserts stick to the glass flats, and in a few cases the reader has to be taken apart to get the film out and reinsert it in the aperture card. This does not

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happen very often, but, since there is some leakage of the Scotch tape in the readers each time, it can be expected that after a reasonable number of uses there will be difficulty about maintaining the film inserts in the apertures in the case of those cards which receive heaviest use.

A number of different forms of films are maintained and 35 mm films, which are the major source of current materials aside from the aperture cards, present a number of special problems because the material is filmed at random. A reel number is assigned to each roll of film but the documents appear at random on the reel. This means that it is necessary to read through the whole reel in order to find any documents on the reel and this frequently consumes fifteen minutes or more.

The batch reels which were used to catch up on the backlog of documents and were prepared on a rotary camera resulted in a large amount of completely useless copy, because of machine blurring of originally poor copy. Batch reel #43 was picked at random and inspected. It was found that there was a great deal of material that could be used with difficulty, if at all, as well as some material that was completely useless.

Analysis of the aperture card system, which is merely a shelving system used in lieu of the original hard copies, will be made elsewhere.

Lack of integration of the operation between the Machine Division and the Circulation Branch, together with an attempt to save a little bit of money in photographic paper at the cost of considerable labor in attempting to fit some exposures onto the paper, have resulted in a poorer quality of product than is desirable. Elite type reduced 18 diameters and only enlarged 12 diameters comes to only about 6-point type and that,

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even if the original is good print and if there is no blurring in the original photographing or developing, or in the enlargement printing and developing, is not too good. If the original is not perfect, as is often the case, and if the microfilming and enlarging are each a little bit sloppy, this places an almost unbearable burden on the analyst. This could be ameliorated in large measure by using a little more photographic paper, and enlarging a little more in the expeditors. The expeditors could be used to produce larger copy and since this would save labor cost in both the filming and in enlarging, it would probably cost less and would give the analyst more usable copy.

COST ANALYSIS ON THE REPRODUCTION OF D-APERTURE CARDS

The materials cost for photographic paper at \$16.35 per 350-foot roll, with approximately 550 exposures per roll, plus chemicals, is slightly over three cents per page. Since the average number of pages enlarged is between eleven and twelve per document, the materials cost is about thirty-five cents per document. The average daily output per operator is less than 100 documents. The salaries of the people currently on the job, assuming only the beginning salaries of their grades and rounding it off to the nearest \$100 come to \$31,200 of which  $\frac{43}{59}$ ths of the five people working on other operation should be charged against the enlargement printing and  $\frac{16}{59}$ ths should be charged against the other services. The rest of the machine operating cost comes to approximately \$11,500 for direct machine operating cost plus  $\frac{43}{59}$ ths of \$19,700 or \$14,500 making a total of \$26,000 of the \$31,200 in the copying unit chargeable to machine operation salaries and maintenance of files related thereto. Dividing this \$26,500 by the 43,000 articles copied, brings the

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per article to approximately sixty-two cents. This means that the direct labor and material cost per article is ninety-seven cents, to which there ought to be added some direct supervisory and overhead costs, as well as machine depreciation, etc. Therefore, the minimum cost per article enlarged, on the average, is at least \$1.00 not counting the preparatory work in building up the files. This dollar net cost per article enlarged from aperture cards is much higher than the bound copy costs at libraries such as the US Department of Agriculture or the National Library of Medicine.

US Department of Agriculture Library charges a dollar for photoprints of the average article i.e. 10 pages, working from bound volumes of varying sizes and shapes, which require resetting of the cameras for each volume photographed and, in addition, included in this dollar is the cost of receiving and accounting for the payments for this service and a profit.

#### IAC UNIT

The IAC Unit serves two functions. It maintains the hard copies of materials stored in OCR, other than book materials, and it maintains the Source Card file (an acquisition function) and helps to answer questions from the Source Cards (a reference function). The hard copy room is maintained by two of the five staff members, and three serve in the Source Card file.

The hard copies are filed by issuing body and by series number or by date. A file of the MIS is maintained and kept up to date by insertion of revisions, and the V-number materials are filed by accession number. Routing to outside agencies is handled by the IAC room when indicated by the Documents Unit. Charging is done by dropping the charge record

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into the place of the document in the file. Loans to outside agencies are controlled by keeping a receipt form. There is a name file in the Search Unit for IAC materials out on loan. There is no time control on IAC materials and the absence of an item is noted a checkup is undertaken only when a particular document is sought.

The total work load in the hard copy room results in the lending of 18,800 pieces per year, or two an hour for the two men who maintain this room.

The three people in the Source Card room file the Source Cards as received and answer between 650 and 700 questions per month. At the time of the survey, there were four working in the unit, but one was supposed to be temporary. The best estimate of allocation of their time that the staff could make was that their questions averaged seventeen per person per day, and that it took about forty minutes each per day to answer the questions. They each estimated that their filing time for the 1,500 cards per day, i.e., 500 each, was a half day. By normal standards, this is very low. But even if we estimated this very simple filing at only 100 cards per hour, the filing would require only five hours and service time would only be forty minutes. So at least a quarter of the available man-hours would still not be accounted for, even with a regular staff of three instead of the staff of four observed.

It should be noted that this is a checking function which is done normally as part of the technical services work of a library.

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BOOK AND PERIODICAL DESK

The total work load of the book and periodical desk consists of lending some 29,500 books and periodicals per year; shelving in the book stacks and maintaining the book and periodical reading room. At the time of the survey, there were six people on duty, but <sup>the</sup> manning table given to the surveyors showed nine actually assigned to the unit. The staff at the Book and Periodical Unit said that the normal complement was five.

With 30,000 loans to be reshelved each year and another 12,000 titles being added, the total work load of shelving and maintaining the collection involves 42,000 items to be shelved per year. At 1,800 hours per year, this represents less than 25 titles per hour, which would be a very low work load for one person. If one person is allocated to shelving and maintenance of the collection, therefore, that would be a very generous provision for that purpose.

That leaves four people to charge and discharge books. The total charging load of 30,000 represents only about 150 man-days of charging and discharging work even at a very low rate of 200 books charged or discharged per day. This means that the total work load in charging and discharging should be handled by less than one man year.

To determine time lag at the book desk, twenty-five charges were checked at random, noting the date of the request and the date issued.

The record was as follows:

Fifteen were supplied the same day, three took two days, one required three days, two required a week, two required two weeks, one required a month, and one required two months. This is a much

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better performance than was found in other parts of OCR, but it is attributable in large part to the direct working of the analyst with the collection available in the room.

The salary cost for the six staff members actually found on duty at the time of the survey instead of the nine shown in the T/O, or the five estimated as regular staff by the head of the unit, again using the beginning salary of each grade, which is low, is approximately \$22,500. This means that the cost per book charge in the very simple, straightforward, operation is seventy-five cents per book, not counting the supervisory overhead above the unit level, as compared with twelve to fifteen cents per book in the average college or university library in which no special care has been taken to reduce the cost of the lending process.

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FINDINGS    REQUIRING ACTION

1. The Branch is overorganized and overstaffed.
2. Circulation Branch duplicates acquisition work and reference work which should be assigned to their proper units.
3. Production is low throughout the Branch.
4. Service is very slow.

Since the aperture card program, and the IAC are discussed elsewhere in relation to the total system, there appears to be no point in repeating those findings here.

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Talks with analysts throughout the Agency indicated high regard for the services rendered by FDD. Personal contacts and personal service on translated materials are at a very high level. It would be well if the same spirit of service and mutual confidence and respect could be attained between the OCR and the analysts.

This area was not studied in detail. Nevertheless, it is clear that FDD goes far beyond translating services and does provide a good deal of reference service. This results in duplication of effort between the FDD and the various other elements of the Agency providing literature service. It also results in still another place for the analyst to go to gather the information that is available in the Agency.

In view of the fact that the translation program and the utilization of foreign literature is an essential part of the total information program, and in view of the desirability of providing the analyst with a single point at which he can make full use of the available resources, and in view of the close relationship between use of material in the Registers and the Library and the need for conversion of much of this material into English before it becomes usable, it is recommended that FDD be made a part of the OCR and that its reference functions be performed by the Central Reference Branch of OCR -- which would, of course, make use of the skills of the staff of the FDD in meeting the needs of the analysts.

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PROBLEMS REQUIRING ACTION

1. EDD duplicated index files and information services provided by the OCR.
2. Translation service is an integral part of the over-all job of making literature available in usable form.

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MISCELLANEOUS PROBLEMS

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DOCUMENT DIVISION

Overall analysis of the procedures, workload, and the time involved in the Document Division was made available through an excellent study prepared by the Management Staff of the Agency. The figures used for production and workloads are taken from that study. Detailed analysis of current operating procedures will not be made since the analysis of the fundamental intellectual performance indicated that radical reorganization is needed.

Determination of the intellectual level of work done by the analysts in coding documents for the Intellofax system was done in several ways. One large and difficult document was given to five different analysts. The five analysts assigned forty-nine different codes to this one document, and only four of these codes appeared in the coding done by all five of the analysts. This shows clearly that a document would be cited completely differently, depending upon who did it, and that the areas of difference are much greater than the areas of agreement in coding.

To check this further, another document was selected. This was a very simple document which all of the coders analysed within just a few minutes. It was coded by six different coders, and no two of them agreed on the coding. This one-page document, which was titled "Swedish Communist Propaganda for the Moscow Youth Festival, July 28th to August 11, 1957," received nine different codes from the six coders. This, as well as the preceding experiment, was reviewed with the Head of the Analysis Branch, and it was agreed that at least six of the codes assigned to the one-page document, were clearly wrong, while a number of the others were doubtful.

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As a third check, the Head of the Branch, together with the chiefs of the units and the training officer, decided on the correct ISC code numbers for ten documents. Five of these ten documents were then coded by eleven coders and five were coded by seven coders. On the first batch, on one of the documents, the top people could not themselves agree on which of two numbers was the right one for the primary code, so they included both. This meant that if any one of the coders selected either one of these primary codes, he was counted as correct. The supervisors also agreed as to whether an abstract was absolutely essential or not and if it was, they indicated that an abstract was required.

~~On the first, only one of the eleven coded correctly and prepared the abstract. On the second, none of the eleven coded correctly, on the third, only one of the eleven used the correct code but even that one overcoded and so had to be counted incorrect. On the fourth, only one out of eleven coded correctly and provided the abstract, with five of the eleven coding correctly without the abstract, and on the fifth one, two of the eleven met the specifications completely.~~

~~In the second batch of five, one coder of the seven coded the first document correctly. On the second, one of the seven was correct; on the third, none of the seven was correct; on the fourth, two of the seven coded correctly; and on the final one, three of the seven-coded correctly.~~

~~This indicates clearly that on the input side as well as on the output side, uniform coding is not achieved, and therefore, uniform retrieval in the present Intellofax system is not possible.~~

~~The examples above were supplemented by a few additional checks but there appears to be no point in going further with this, since it indicates clearly that the input into the system is uneven and depends~~

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upon who does the coding. Analysis of the experience of the coders indicates that there is no relationship between number of years of experience and adequacy of the coding, but that the difficulty rests in the nature of the ISC.

INTELLIGENCE SUBJECT CODE

As indicated above, no one either on the input or output end can use the intelligence subject code so as to provide uniform coding or decoding. This is attributable to the imperfections in the Intelligence Subject Code and is not a fault of the personnel doing coding or decoding.

There is no definition of terms in the ISC and terms are repeated in various places in the code without anything in the codebook telling in what context they are to be used in each sub-class. (See also in this respect, the section of this report dealing with cataloging.)

Furthermore, words are used in different senses in the coding. A noun, penicillin for example, which is primarily included in the codebook as the drug product, may be used as a modifier for a type of ~~action.~~ For example, sabotage in a penicillin factory will be put under penicillin even though there is a perfectly good number for sabotage of chemical or biological plants. Anyone interested in sabotage of chemical or biological plants must, therefore, look under every conceivable product that is made in a chemical or biological plant, on the off chance that there may be material on sabotage of plants producing that product. If he does not do that, he will not pick up all the material sabotage of chemical or biological plants. This happens because there are no definitions in the ISC to tell the encoder or the decoder when to use each term.

Because of the failure of the Intellofax system to produce consistent and reliable results, there has been constant pressure from analysts to

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expand the code, and to make its subdivisions finer. This has been done without adequate review of what is put into the code for internal consistency. This causes headings to be inserted into the code in various places in different contexts, so that nobody knows when to use a term and for what purpose.

It would appear that subdivision in the code book has gone beyond the subdivision in the documents themselves, or the nature of the documents themselves, as well as being applied inconsistently. This has resulted from the operation of a blind system throughout, with the analyst and reference librarian both defenseless because they cannot examine the material to find out what is pertinent and what is not.

Whether this comes from an attempt to mechanize beyond the level of capability of machines to handle the material is not important. What is important is that it results in an ISC that cannot be used consistently. This results in insecurity and fear of the system on the part of the reference librarian and the analyst, and in failure of the system. This would appear to indicate that as a first step it is essential to revise the Intelligence Subject Code, simplifying it, defining all terms, and providing for consistency.

There should be provision for review of the material that comes from a search in order to select the items of particular interest to the analyst in the particular context in which he happens to be working at that time. This requires that each of the cards that is produced carry a brief annotation or abstract to tell what is in the document and also where it is in the document. And, above all, it requires the definition of the terms that are used in the code book so that the encoder and decoder know when each term is used and how.

STATISTICAL ANALYSIS OF WORK IN DOCUMENT DIVISION

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The following data are taken from the management analysis made by the Management Staff of the Agency.

Distribution of documents is completely separate from their analysis. A good deal of this could be done in the print shop; an increasing amount of it has been done that way in the past. It has no relationship to the library operations and might well be separated from it.

According to the management study, the screening, batching, coding and preparation of source cards for punching or filing (exclusive of the actual printing of the card, which is done in the reproduction plant) involves fifty-five man-years, plus supervisory staff time.

In addition, the preparation of the Intelligence Publications Index involves 4.3 man years.

The total number of documents indexed last year was approximately 295,000. The increased use of "nodexing" is reducing that figure and it is estimated that 260,000 documents will be indexed during the current year. It has been recommended by Documents Division that "nodexing" be extended so as further to reduce the number of documents that will have to be indexed.

IBM CARD REPRODUCTION FOR CATALOGS AND PUNCHING

As indicated in the organization chart of the Document Division, seventeen typists type masters for duplication of cards needed for the Intellofax system and for other purposes. These are now sent to the Duplicating Section to have the cards reproduced because they are run off on a multilith machine. A study of card production in three great public libraries indicated that the handling of these short runs is best done on office-type multilith machine. A study of card production in three great public libraries indicated that the handling of these

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short runs is best done on office-type multilith machines as part of the preparation of the cataloging copy. This cuts down delay, handling costs, wast cards, and total cost. However, at the present time, CIA sends the paper masters to the Duplicating Section for reproduction. In doing that they order ten short cards and seventeen cards for punching for each document. This means that approximately seven million cards are printed and returned to the Documents Division and the Machine Division. Of these, as few as five may be used and occasionally as many as fifteen may be used. More than half of the total number of cards produced are wasted. The estimate of the Machine Division alone is that they discard three million cards per year, and one million is a conservative estimate for those discarded from the short card distribution. This means that because of the need to transmit from one place to another, with the Machine Division's requirements uncertain, and uncertainty as to the number of short cards needed, four million or more cards are printed and discarded each year. While this represents only \$4,000 or \$5,000 worth of card stock, it also represents the press work for the same number of cards and the handling of the same number of cards so that the result is not only a delay in getting information into the system, but a substantial amount of waste in terms of cash expenditure. If the reproduction of cards were done as part of cataloging or indexing work, assuming that it will be necessary to produce cards, the number of cards could be fitted to the number needed much more closely and millions of cards and impressions could be saved.

FINDINGS REQUIRING ACTION

1. - The present ISC cannot be applied uniformly to the coding of books or documents and must be revised.
2. - The card production system is slow and wasteful.

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MACHINE DIVISION

The Machine Division consists of the Office of the Chief and a Planning Staff, an Operations Branch, a Development Branch, and a Microfilm Branch.

The Office of the Chief handles planning, including work on the Mini-card system, special jobs, logistical support to all OCR components, such as ordering machines and machine tabulating supplies. This is estimated to occupy about half a man-year. The Office of the Chief, including the Planning Staff, has a T/O of seven, with an actual staff of four at the time of this study.

The Operations Branch has a T/O of forty-four with thirty-seven on duty as of the time of this study. Of these, eleven were in the Tabulating Section, seven in the Control Section, six in the Special Projects Section, and twelve in the Card Punch Section, plus the Chief of the Branch. The Special Projects Section works on unclassified projects outside the scope of this basic study.

The basic costs, so far as they are applied to the indexing and retrieval of documents, have been taken from the Management Staff study. These do not include allocation of costs of the office of the Chief of the Division and similar overheads.

The Control Section of the Operations Branch reviews tapes to see that the machine operation has selected the proper security classifications. The Card Punch Section prepares the cards for Intellofax as well as other functions, and the Tabulating Section does the machine runs for Intellofax output and for filing. The proportions of these operations chargeable to the Intellofax program, have been isolated in the Management Staff study.

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The Development Branch has a T/O of five, and had five on duty. It maintains the equipment and operates the facsimile equipment, and does some development work.

The Microfilm Branch has a T/O of fourteen and actually has thirteen on duty. It includes a Camera Section, a Laboratory Section and the Mounting Section, all of which are covered in the Management Staff study.

#### SYSTEM ANALYSIS OF THE INTELLOFAX SYSTEM

Discussion with the Chief of the Machine Division of the figures he gave to the Management Staff, indicates that overheads in the division had not been assigned to the operations listed. To make these figures more accurate, it would be necessary to add overhead costs. For the purpose of this report, it will suffice to use the figures in the Management Staff study, with the understanding that these would be increased if it were necessary to go into a more detailed study. This is actually not all overhead because in the case of complicated machine runs the plug boards are wired in the Planning Section, which is counted as overhead.

The machine rental chargeable to the Intellofax system, as worked out by the Machine Division, is \$4,406 per month or \$52,832 per year. No cost for card stock is included in these cost figures.

The Microfilm Unit copied 291,424 documents on 16 millimeter film for aperture cards in 1956. This was a total of 1,346,017 pages or 4.6 pages per document in the aperture card system. Three thousand nine hundred fifty documents were copied on 35 millimeter film, making a total of 197,395 pages or an average of 50 pages per document copied on the 35 millimeter film.

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It is interesting to note that the average number of pages per aperture cards reproduced in the Circulation Branch is close to twelve, which means that the longer documents are selected much more frequently than the shorter items, and that very few of the shorter items are called for. On the other hand, with an average of fifty pages in the 35 millimeter films and a rule in the Circulation Section that material over twenty-five pages is not copied for analysts, it appears clear that the only way the great bulk of material in 35 millimeter film can be used, since it averages fifty pages per item, is by use of the reading machines. The use of these is so low, however, that a very small proportion of the material that goes into the 35 millimeter film can be said to be used at all.

On checking the retirement of old IBM cards, it was found that it is planned to retire the 1952 intellofax cards starting the first of June. To date, 1,380,000 cards have been retired and, as noted elsewhere, have been completely out of the system. If this policy is continued, and the Intellofax system is continued, the material put into the Intellofax system must be written off completely in five years, whether or not it has ever been used.

Examination of the files of Intellofax cards in the Machine Division indicates that these are really nothing more or less than a blind conventional classified card catalog using larger cards than normal and keeping the file in multiple arrays rather than in a single array.

While one of the theoretical advantages of punch card handling of information is that fewer cards can be used by getting multiple access to multiple subjects in a single card, that is not the case in the Agency, where a separate subject or area card is punched and filed for

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each subject or area.

Another theoretical advantage of punched card machine systems is automatic machine filing. However, in an application like this one, where relatively small parts of the large deck of cards are pulled out every day, it would be uneconomical to refile these into the major deck regularly. This means that multiple files are accumulated with hundreds of thousands of cards out of their regular place in the file and in supplementary files. Actually, at the time this was investigated during May 1957, there were seven supplementary files awaiting filing. This means that every number to be searched in the machines has to be hand-picked from eight different places by the boy who is pulling the cards. If he misses the cards in these blind files in any one of the eight places, the search is incomplete. While all sorts of controls are set up at other points, there is no control over this searching, and it is not reasonable to expect even the best trained and most willing worker to be able to pull from eighty different places for a common ten subject search without occasionally missing one or more piles of pertinent cards in one or more places. Since the supplementary files have been built up unevenly in size and they have been added to until it was decided to start a new file (these files range from 60,000 to 120,000 cards) there is no indication on the outside of the trays what is contained in them. Furthermore, it is necessary to loosen the cards in the tray before one can see what is in a tray. Searching must proceed within the tray after the right tray is found by pulling up cards at random until the right place is found, and then examining in that place to see whether there are any cards on that subject. This must be repeated eight times for every subject.

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The oldest of these supplementary files is now being inter-filed into the main file but that is a long process since it requires running each one of these packs against the entire file of cards for inter-filing. It would appear that refiling of cards is at least a year behind, and that it will never pay under the machine system to keep the cards currently filed back into the main file. It would be much more economical to file them back by hand if it were going to be done at all. Each one of these supplementary files of 60,000 to 120,000 cards has required constant and repeated inter-filing of the additional cards until they reach that size, and this also involves time lags before the cards get into the files. This means that the card files are rarely complete. That presumably is taken care of by the control record at the control desk, but that does not necessarily always indicate cards that are out of the files. The greatest difficulty here, however, is the burden placed on the boys who pull the cards.

In order to reduce this burden, the boys pull blocks of cards rather than pulling the ones specifically dealing with the number requested and this makes for additional machine running time, which would not be necessary if this were not a blind file.

Thus, it would appear that in the final analysis, the adequacy of the entire system, despite all of the controls, depends upon the accuracy of boys in pulling every code number from every one of the eight places in the files.

Another factor in filing by machine is the fact that the cards are constantly pulled out of the file and require constant refiling. In a standard catalog, the cards stay in place and once filed, they are filed permanently. Thus, the filing attribute of the machine is required in

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large measure because the machine system requires refiling and does not leave the files intact during cycles of consultation.

Sorting is another of the attributes of the machine. Sorting is required because the blind files allow drop filing in large groups of materials under a single code number. In manually consultable files, the headings make it possible to determine where in the file a segment of a subject may be found without pulling large numbers of cards and running them through a sorter.

One of the chief advantages of the machine is that it can sort out the things published at a given date or at a given period; it can pull various levels of restrictions punched into one of the columns. As noted above, even though the machine does sort for restricted materials depending upon the qualifications of the recipient, and the needs of the recipient, this is manually rechecked twice, once in the Machine Division, and once in the Reference Branch. So far as sorting on date is concerned, conventional catalogs, such as that of the New York Public Library file chronologically under the subject, and alphabetically by author under the date. Thus, the chronological approach can be taken under each subject without having to pull cards out of the file and run them through the machine to fine out what is available in that subject that was published in 1955 or any other particular date. Much of the sorting that has to be done on the machines is caused by the fact that the machines operate from blind files, and the grade of personnel used is not qualified to pre-select material from the file even if there were visible headings and subheadings.

As a matter of fact, the pulling time, including the problem of looking eight different places for each code number, is probably greater than would be required to find the cards and look through them for the

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bulk of searches in a conventional catalog.

It appears, therefore, that the use of the punch card machine for Intellofax searching contributes almost nothing as compared with a well prepared conventional card catalog. It requires much more space than would be required with a conventional catalog.

Punched card machines have real areas of usefulness. There is no evidence, however, that as applied in the Agency, the punch card machines are justified at all for information retrieval from documents.

The space chargeable to the Intellofax system in the Machine Division, including half of the key punch room, half of the machine room, half the planning space, etc., plus the Intellofax printing space, the aperture card space and the card-storage space comes to approximately 7,000 square feet. A card catalogue representing all the cards in the punch card-storage, but in standard card catalog form would occupy approximately 500 square feet. A hard copy file for the five years of documents would occupy not over 3,000 square feet including space for readers and for photostat cameras for making copies of the intact hard-copy file. The microfilm room would presumably still be necessary, and would require another 500 square feet approximately. Thus, the hard-copy file and the card catalog for access to the documents, together, would occupy only about 3,500 square feet instead of the 7,000 plus square feet now used for the machine operation. In addition to these, the machine operation involves the rooms in which the aperture cards are stored, and those where the machine for enlarging aperture cards are stored, as well as the reading machines for microfilm reading of aperture cards. This involves an additional 1,340 square feet of which 580 square feet is film storage, 600 square feet is the copying unit, 160 square feet is the microfilm reading room. If the aperture

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card system were eliminated, that would save at least 1,000 square feet of this space.

In addition, there is the IAC room in Q Building, which occupies 865 square feet of space, and which would be included in the hard copy file noted above, so the total saving in space by going from the machine system to a normal card catalog system plus a hard-copy file for five years of documents, would be approximately 5,000 square feet of space.

Space required for the present Documents Division is about 9,700 square feet, of which about 6,500 square feet is directly chargeable to the documents indexing operation.

Another alternative method of doing the indexing of documents would be to enlarge the IPI, and substitute it for either the Intellofax cards or the card catalog. If this were done, it would not be necessary to index all of the documents received because:

(a) as proposed elsewhere, the bringing of documents under control would be handled in a checking record in the Acquisitions Branch, and therefore, would not have to be duplicated in the bibliography, nor would it be necessary to maintain the present source card file.

(b) the nodexing program has demonstrated that many documents do not make any substantive contribution, and need not be indexed. This program is currently in operation, and could be extended still further when control of documents is effected in the Acquisition record.

(c) there is a considerable amount of overlap between the materials now indexed in the Intellofax system and

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in the Registers. If this duplication were eliminated by omitting the indexing of all material that is covered by the Registers, this would further reduce the number of documents that would have to be indexed.

Based on the above, it appears doubtful that more than 150,000 documents per year would need to be indexed into the enlarged IPI to provide full coverage of all documents of substantive value which are not already covered by the Registers.

The present IPI staff of 4.5 man-years indexes somewhat more than 20,000 documents per year. Allowing for eight times this staff would call for a staff of thirty-four to prepare the expanded IPI. In order to provide for higher quality of indexing and fuller annotation and better analysis, this staff might possibly be set at fifty people. Basing the space required on 80 square feet per person, this would require about 4,000 square feet of space, which would release another 2,500 square feet.

Thus, if the present unsatisfactory mechanical system were eliminated and conventional means were substituted, saving space of about 7,000 square feet should result.

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figures are those obtained from the Management "M" Staff "S" study, and omitted certain costs as noted above. They include staff and machine costs in the Documents Division, the Machine Division and the Circulation Branch.

<u>Total Cost of Intellofax Cycle</u>			
	<u>Man-Years</u>	<u>Salaries</u>	<u>Equipment</u>
Screening	2.5	\$ 14,400	
Matching	6.3	22,330	
Coding	28.9	153,800	
Typing Source Cards	17.4	52,430	
Making Aperture Cards (Including Filming)	13.6	45,780	974
Making Intellofax Cards	8.4	29,530	
Reference Service Coding of Runs	0.42	2,717	
Control of Runs	7.5	26,343	
Machine Running	9.44	31,184	
IBM Rental			52,832
Making Tapes	1.02	4,615	
Machines (Copying)			20,000 (per year)
IPI	<u>4.3</u>	<u>24,800</u>	
TOTAL	99.69	\$407,929	\$73,806

Therefore, the cost of the present cycle is approximately \$500,000 not including supplies, supervision, etc. These costs do not include the searching operations which are required in the Circulation Branch to identify the documents, or the staffing of the IAC room which is now required to supply the hard copy documents, or the maintenance of the Source-Card file. They also do not include production of millions of cards in the print shop. Thus, as a minimum, the direct cost for this operation exceeds a half-million dollars a year. The end product of the above system has been some 2,500 searches a year, so the minimum direct

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cost per search is over \$200.00.

Approached from the point of view of the documents supplied to analysts, it should be noted that only 60,000 documents are supplied in all forms from the aperture cards or films. A good many of these are obtained by the analyst from sources other than the Intellofax runs, i.e., references from other analysts, from his own indexes, etc., and, therefore, should not be charged against the Intellofax costs. Not including materials costs and overhead, the cost per document supplied in enlargement from an aperture card including the Intellofax cycle exceeds \$10.00 per document.

Not only is the cost of \$200.00 per search in the Intellofax system a very, very high cost, it does not represent all the costs, since, as pointed out before, Reference Staff has to screen runs for security classification, etc., in addition. Furthermore, in view of the very large amount of waste references that appear in all runs, which waste the time of the analyst, a considerable amount of additional screening has to be charged against this process, which screening has to be done at the analyst level and at very high cost. This may well exceed the cost for runs on the machine side.

#### COMPLETE CYCLE INFORMATION RETRIEVAL

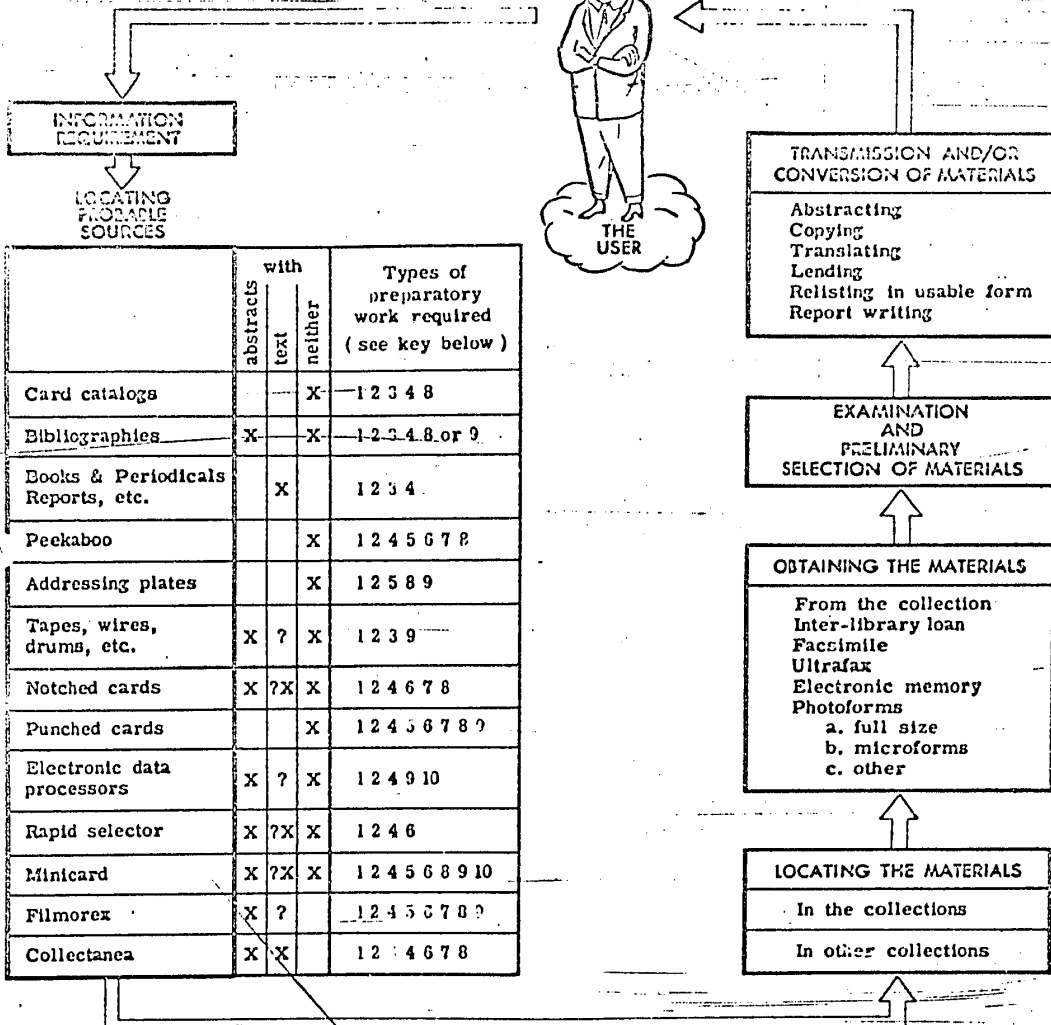
It is only by putting the objectives of the Agency in the forefront that one can determine what is justifiable or unjustifiable in information service.

It would appear that the nature of the Agency's work requires more sophisticated information retrieval than would almost any other kind of organization. It is obvious that the present level of information retrieval is lower in quality than that of the average reference or research library.

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COMPLETE CYCLE  
INFORMATION SERVICE



	with		Types of preparatory work required (see key below)
	abstracts	text neither	
Card catalogs		X	1 2 3 4 8
Bibliographies	X	X	1 2 3 4 8 or 9
Books & Periodicals Reports, etc.		X	1 2 3 4
Peekaboo		X	1 2 4 5 6 7 8
Addressing plates		X	1 2 5 8 9
Tapes, wires, drums, etc.	X ?	X	1 2 3 9
Notched cards	X ? X	X	1 2 4 6 7 8
Punched cards		X	1 2 4 5 6 7 8 ?
Electronic data processors	X ?	X	1 2 4 9 10
Rapid selector	X ? X	X	1 2 4 6
Minicard	X ? X	X	1 2 4 5 6 8 9 10
Filmorex	X ?		1 2 4 5 6 7 8 ?
Collectanea	X X		1 2 4 6 7 8

Key to the types of preparatory work that may be required

- |  |   |
|--|---|
| 1. Building the collection                         | 6. Photographing and photo-processing       |
| 2. Descriptive and subject cataloging and indexing | 7. Clipping and mounting                    |
| 3. Compilation                                     | 8. Manual filing                            |
| 4. Reproduction and typing                         | 9. Machine filing                           |
| 5. Punching, notching, embossing and/or tabbing    | 10. Preparation of programming instructions |

Draft May 1957

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As noted above, the coding and decoding of the information to put it into the system, and to bring it out of the system, results in vast numbers of false drops. This in turn, results in sorting by the analyst, of large amounts of non-pertinent citations. Furthermore, in so doing, he does not have as much information about the documents as he would find in a conventional bibliography or on a conventional catalogue card.

As a minimum, the index entries, regardless of whether they are in Intellofax, in conventional card catalogue form, or otherwise, should give the analyst enough information so that he knows whether he needs to consult the document. It is not sufficient to give him a list of numbers or short titles which do not tell him enough to enable him to select from thousands of documents, since he cannot conceivably find the time to consult all these documents.

To place the information cycle in focus, the attached diagram indicates a complete cycle of information service. The cycle must start with the user, who has an information requirement. This should lead to locating probable sources, and in that process there are available a large number of different kinds of tools. As shown in the two sections at the right of this box (dealing with Locating Probable Sources), some of the types of information sources provide abstracts, some provide the text and some provide neither. Also, as shown, there are various types of preparatory work that are required for a card catalogue, a bibliography, a punch card machine, or for other devices that can be used for locating probable sources. After probable sources are identified, the material must be located either in the collection or in other collections. Then the materials must be obtained, they must be examined, and there must

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be preliminary selection in the light of the actual needs of the analyst working on a particular job. The materials must then be made available to the analyst in a form that is suitable for his use.

Until this cycle is completed and the analyst has the information that is pertinent, in useable form, the job is not finished. Also, in comparing the various methods, all the preparatory work in each step of the operation must be considered in order to determine whether the overall economy of the process is optimum. Thus, in all cases, there must be a collection available somewhere, it must have it described and subject catalogued or indexed somewhere and somehow. The punched card machines cycle includes: reproduction and typing, punching, as well as much manual filing, much machine filing and a certain amount of preparation of programing instruction, (i.e., preparation of the plug boards before the machine is ready to run to give answers). There is also the problem of input into the machine, which in the agency includes the ISC. When aperture cards are used, the system requires preparatory photographing, insertion of the film into the aperture cards, and manual filing. In addition, it is necessary, after machine runs to locate the material, obtain it, and examine it to eliminate unnecessary documents, and to convert the parture cards into form useable by the analyst. This complete cycle is not included in the costing done above, but despite that, as shown above, the cost for very low grade service is extremely high.

The IBM system as currently operated does not provide multiple access to single cards. If it did, the problem of imperfect files would be even more critical because more material would have been pulled

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out, and the problem of sorting vast masses of material would be even more critical. It does not offer a feasible solution to the information process in the Agency. It adds nothing but hardware, hard work, higher cost, and service delays in processing information requests in the Agency. The Chief of OCR has stated that the Intellofax system has broken down.

The Intellofax system has failed to handle needs of the Agency as indicated in a memorandum from the Assistant Director, Collection and Dissemination to the Project Review Committee, through the DD/I, dated 25 April 1955, in which, in justifying the proposed MINI-CARD project, Dr. Andrews says: (p.2)

"The urgency of the storage, retrieval, and cost problems facing Intellofax in the immediate future cannot be over-emphasized. Its growth to the present scale has been accomplished by multiplication of IBM equipment rentals, storage cabinets, space units and personnel. Though declining, researchers' requests for total searches of the seven year Intellofax product still amount to 60% of the flow. Compliance with these requests in categories now numbering tens of thousands of cards is inevitably lengthening search time, multiplying overlap problems and overloading users with insufficiently refined answers. During the past two years, the possibilities for solution by multiplication have generally disappeared, particularly in the categories of space and personnel. Until permanent relief can be achieved along lines incorporated in MINI-CARD, OCD has no alternative but to gradually reduce the range, speed, and quality of the Intellofax service."

Since the failure of the Intellofax system is clear, it is necessary for the Agency to consider alternatives. One alternative

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that is being studied is the MINI-CARD system. This is an intellectual duplicate of the Intellofax system, with some possible savings in space and handling time in the sorting operation, but not necessarily in the total cycle. By the most optimistic estimates, the initial testing of this approach will not be completed for another two years or more.

The choices now available include the substitution of a conventional card catalogue with a simplified ISC as its basis, or provision of a printed bibliography in the form of an expanded IPI, also based on a simplified ISC. Either of these, in connection with an intact hard copy file for current materials, can supply all that can be obtained from the Intellofax system, plus a good deal more, and at lower cost. The advantage of a card catalogue over a printed bibliography is that it is only necessary to look one place (theoretically) to get all of the material that is available on that subject. The material is all interfiled under the code numbers, and can be found more quickly than it can be by looking in multiple volumes of printed indexes.

This is compensated by several factors in the case of the printed bibliography which appear to be pertinent to conditions in the CIA.

For one thing, the mere fact that additional material is continually being interfiled into a single file requires consistency over the years in the use of subject headings or classification codes. If this file is to remain useable, it is essential that when changes in subject codes are made, the older material be revised to fit in with the new coding. This is not done currently either in the cataloguing of the book collector or in the cataloguing of documents for the Intellofax system, and as a result, as shown above, material is missed by failure to use all of

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found. This is not true of the printed bibliography which can have a terminal date once each year, and thus can permit changing of coding or subject heading systems with each new volume. Since skilled searchers always work from current years back, the changes can be noted in the current volume, and thus as one works backward, he is led to the old headings if his search goes back that far.

The use of annual cut-off dates in printed bibliographies also has the advantage of automatically providing material for the periods for which the search is to be made, without having to do sorting to pull out the material for one year, or two years, or five years.

The printed bibliography has another great advantage in that it can be duplicated and can be available in the office of every analyst so that he does not need to leave his office to go to the central catalogue to find out what is available, but can do that from the printed bibliography in his own office.

Still another advantage of the printed bibliography is that, properly designed, it can supply the same amount of information in only two or three percent of the space required for conventional 3 x 5 inch catalogue cards, or in about one per cent of the space required in a catalogue printed on IBM cards, as the Agency's catalogue is now printed. This means that a single three foot shelf of printed bibliographies can make available to every analyst, or every group of analysts, ten years or more of intelligence material, whereas at the present time, the bulk of the IBM file has made it necessary for the material to be discarded after five years.

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A still more important advantage of the standard card catalogue or printed bibliography over the IBM type of file is that it permits direct searching by the analyst. In the process of every search, the analyst is likely to get additional ideas about things that might be pertinent as he looks over the cards or entries and their annotations. In the conventional catalogue or bibliography, the analyst can turn to those subjects and immediately follow additional lines of investigation. This is not possible in the blind file approach of punched cards, in which the analyst must guess at what might possibly be fruitful and then, as at present, he receives blind entries that do not tell him whether he has what he wants or not. This means that he does not pick up additional leads until he has looked at the blindly selected items, and even then, those are not leads to the indexing system, they are ideas with which he must go back to the ISC in order to start a new blind Intellofax search cycle. The evidence from past Intellofax searches is that it is one of the most common and most fruitful aspects of searching. That is one of the reasons why investigators generally insist on doing certain types of searches themselves.

This type of use of the OCR is experienced only in use of the IPI, which has a very limited field of coverage. The IPI is one of the services which has received commendation from a large number of analysts. This type of searching is also done in the collectanea type of files, i.e., the docket types, which are represented by the Registers, and which, likewise, appear to be much more satisfactory intellectual tools to the analysts of the Agency in general than is the blind approach of the punch card system.

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As noted in the section on the collections, there is now no effective follow-through on completeness of document coverage. If that were taken care of by an intact hard-copy file arranged by issuing body, and by a shelf list, arranged by issuing body to serve as a policing record to cover missing numbers as well as a record of what is on hand, then these, in combination with a selective bibliography, and the Registers, should give a much higher order of service to the analyst than is now achieved.

Going back to the chart above, this would involve a bibliography, which would be available to the analyst and his research assistants, (including among whom would be the bibliographers and reference librarians). This bibliography would locate the material on the subject that appears pertinent. The hard-copy collection could be consulted directly to see whether the likely items actually do meet the user's general specifications. After that copies of the pertinent documents could be reproduced for the user, leaving the file intact for other users. There would never be any delay because of failure to keep intact files. Furthermore, in larger bibliographic searches, the printed bibliography could be placed in front of a camera such as the Photoclerk, as is done in the United States Department of Agriculture Library, and the entries could be copied quickly to make a bibliography at very low cost, without the manual copying ordinarily associated with card catalogues or printed lists.

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If the problem of control of the physical items, so that each document that exists is accounted for, is taken care of by a checking record and by the intact hard-copy file, the enlarged IPI would need to cover only those documents that say something. This would be an extension of the present approach to Nodexing documents which do not make any substantial contribution. In line with the policy of increasing Nodexing, and since control would be provided otherwise, it should be possible to reduce the number of documents that would have to be indexed in the enlarged bibliography. While this is difficult to estimate, it should be noted that Nodexing and other categories of non-indexed material have reduced the number of items which are now intellofaxed from the rate of something like 350,000 received to something like 260,000 that are being indexed, and this process is still continuing at the present time.

It should be noted also that there is a great deal of duplication between the Intellofax file and the Registers, particularly with respect to the Industrial Register. There appears to be no point in doing this two ways and since the Industrial Register is providing an important service of high type, and since this is intended to be integrated with the information services of the central CIA OCR program, it should not be necessary to index the material covered by the Industrial Register, or the Biographic Register, or the Graphics Register in the bibliography. This would mean a further sharp reduction in the amount of material to be indexed. In view of the proposed expansion in the Nodexing program, and in view of recommendation that IR, BR, etc., be permitted to do their job without duplicating their job in other parts of OCR, it appears that the number of items that would have to be indexed would be around 150,000.

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This would mean a bibliography somewhat less than twice the size of the Bibliography of Agriculture or the Current List of Medical Literature. The cost of putting items into the Bibliography of Agriculture when last checked by the consultants was about eighty cents per item including printing and distribution of the bibliography. The work of compiling that bibliography includes going through hundreds of thousands of articles and discarding them as not being within scope. This takes a substantial amount of time of the bibliographers, and that is not shown in the totals listed in the bibliography. This would not apply to so great an extent in the case of the proposed enlarged IPI.

On the other hand, because of the urgency of the problems of the CIA, it is suggested that every item included in the bibliography should be annotated, at least to the extent of justifying every index entry. In that process, the actual page number of the document referring to each subject or area indexed should be given in the annotation. At the present time, the only way one can find whether a document is really pertinent to his search after receiving it from the Intellofax run is to go through the entire document to see whether it says anything on his subject. The proposed IPI should have detailed indexing both by subject and by area, and thus would require more work in that respect as well as in the more detailed annotating than is done in the Bibliography of Agriculture.

If we postulate a cost twice that of the Bibliography of Agriculture, to take care of these, and assume the total number of entries at about 150,000, the total cost of this first rate bibliographic index which would be readily available to every analyst in the Agency would be between \$225,000 and \$250,000, which is about half of the present cost of the present cost of the Intellofax system, and for much higher quality of service.

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An additional advantage is that this would make it possible for the Agency to make available to the other members of the intelligence community such sections of this enlarged IPI as they would ordinarily be given in other forms. This would make the organized information available in CIA more readily available to the whole intelligence community. In doing this, it might be necessary to have two series of each part of the enlarged IPI, but there are other possible alternatives. It might also be feasible to break down the IPI on a regional basis.

As a cross check on the cost, it might be noted that the new IPI would be seven or eight times the size of the present IPI, which is done by 4.3 people.

FACSIMILE REPRODUCTION.

Facsimile reproduction is slow and costly. Facsimile, even at a relatively low level of reproduction quality, produces only three or four cards per minute, and the material cost is higher than that for silver paper, which gives copies much faster and at a much higher quality level. Available photographic devices work at three or four times the speed that can be achieved by facsimile printing and produce more readily useable format of copy.

The Intellofax materials cost about \$2.75 a roll for paper 100 feet long and four inches wide, i.e., thirty-three square feet of paper, which is more than eight cents a square foot. Silver paper is provided for the government on contract for about five cents a square foot. The slowness of reproduction by facsimile, and the cost of materials has led to production of nonstandard size copies. This means that before the Intellofax strip can be used, it has to be cut up into pieces, and this has to be done manually because of the variation in sizes. Because the

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Intellofax paper is so light in weight, it has to be fixed to a heavier card before it can be handled as separate slips.

The use of standard photographic paper would not only be cheaper, but would permit the standardization on 3 x 5 slip form. The paper is heavy enough so that it would not have to be stapled to something else to be handled, and it would fit into standard files. Since the size is standard, cutting could be automatic or semi-automatic as is done in the United States Department of Agriculture Library, rather than requiring the analyst or his staff to cut up the slips into useable form by hand.

At the time the Intellofax system was developed, there were advantages hoped for from it which have not been achieved, primarily because of the security problems involved in distant transmission of Intellofax information. Also, since that time, automatic roll processing and strip processing has been developed far beyond the level available for handling silver paper when facsimile was started. At the present time, however, greater speed, higher quality, and lower cost can be achieved by copying either on silver paper or possibly in the new RCA Electrofax System, using a standard size 3 x 5 sheet as the product.

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**SECRET**Findings Requiring Action

1. - Retirement of IBM cards limits the usefulness of the Intellofax system to five or six years of recent materials.
2. - The Intellofax punched card files form a blind conventional classified card catalog.
3. - Automatic machine filing does not keep the cards in a single file so that manual consultation of eight blind files for every subject code must precede machine searching; limits the speed of the whole system. Errors in this are inevitable and this limits the reliability of the entire system.
4. - These files are never intact.
5. - These files require excessive space.
6. - Little sorting is done on the machines that could not be effected by subheadings in conventional catalogs or bibliographies.
7. - The Intellofax system as a whole, requires more space than conventional systems.
8. - An enlarged IPI could do the job now done by the Intellofax system at a higher intellectual level, and at about half the current cost.
9. - An intact hard-copy room would be more economical of space, and would provide faster and better service than does the current film storage, IAC room and reproducing complex and at lower cost.
10. - Work done in the Registers is duplicated in other parts of OCR, particularly in the Intellofax system.
11. - Optimum service to analysts and others in the Agency requires complete cycle service from a single point rather than the present fragmented approaches.

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12. - The Intellofax system has failed to provide service at as high an intellectual level as needed for the programs of the Agency. It is slow and costly and undependable.

13. - Facsimile reproduction is slow, costly and produces a product of low quality.

14. - Greater speed of service in higher quality and more useable format can be obtained at lower cost by use of other available process.

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MINICARD SYSTEM

Development of the Minicard machine is still in process and no one as yet has a complete set of the machines. It should be noted, however, that there has been no study of the Minicard system in terms of the manpower required, the number of machines required, the amount of retrieval that can be handled per installation, the intellectual level that can be achieved through the Minicard system, or any of the other basic data that should be obtained.

As it stands, under the best of conditions, it will be a year to a year and a half after the camera is delivered before anybody has any idea whether this system will give the Agency anything that it does not now have or could not have better by means of other types of bibliographic tools.

The Assistant Director/OCR was asked on 9 May 1957 whether there was a staff paper or a formal report evaluating the gains anticipated from the Minicard system. He said that there had been no such report but that there had been a good deal of staff thinking about it. He referred the Consultants to the head of the Machine Division for information about the anticipated operation of the system.

The conference with the Head of the Machine Division on 9 May indicated that no working paper had been prepared and that the only thing that had been put down on paper on this proposal was a preliminary staff study to get the funds for the program, but that was, in his judgment, too general to justify study.

When the first camera is received it is anticipated that it

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will do 10 percent or so of the current intake and on the basis of that, a six to nine month photographing and searching study will be made to compare the Minicard system with the Intellofax system. It is anticipated that the coding will be essentially the same except that the action code will have to be recorded differently (there has been no work done on developing more detailed or different codes, but some additional indicative information may possibly be added, such as city names).

The only planning that has been done beyond the initial stage is that a second camera has been ordered. There is as yet no delivery date on the second camera.

It is also planned, if the sample shows the system to be satisfactory, to convert the operation from the Intellofax to Minicard. This, it is estimated, will take six to nine months more after a sufficient number of cameras have been obtained. There are no data as to the number of cameras that will be required.

It should be noted that this is not atypical of OCR's record in deciding on projects. Several projects in the past have been started on inadequate bases and have had to be discontinued after considerable investment. It would be well if detail planning of the operation, step by step, in terms of both operational efficiency and of the needs of the analysts of the Agency could be undertaken as promptly as possible to avoid further failure.

Evidence of failure to follow through on planning of projects is provided by such things as the promotion of the Intelligence Subject Code for adoption by all intelligence agencies before it was established

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that the present code was workable. This will require changes by cooperating agencies as the ISC is revised.

Other examples are projects such as the Cyrillic Union Catalog, which was started in cooperation with the Army and Navy. This was undertaken without adequate planning and after many thousands of cards were produced, they were thrown away. The difficulties could and should have been foreseen before this project went into large-scale operation. They involved such obvious problems as differences in transliteration, differences in form of entry, differences in the size of the cards used, and failure to provide for the staff required for interfiling these cards, which made the project impossible.

Similarly, the current Intellofax system was never subjected to thorough analysis, in terms of the objectives to be achieved, and it has resulted in provision of very costly service, of low intellectual quality, and with excessive delays, so that a substitute must be found for it if the Agency is to achieve its objectives.

It is quite possible that with proper planning, the Minicard system can be used for part of the storage and retrieval job. In the present state of the art, it does not appear that the Minicard system will solve any of the urgent problems of speed and quality of service outlined above. A great deal of high-level study and planning needs to be undertaken to determine the areas in which this tool can be used effectively, rather than plunging into it as a solution for intellectual problems which have not been approached at all in the preparation for the installation of Minicard.

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~~SECRET~~APERTURE CARDS VS HARD COPIES

The aperture card system is a substitute for a hard copy file. The filming of documents will probably need to be continued for preservation and use of older materials. The insertion of these into aperture cards, their storage, and reproduction place an additional block in the way of the analyst who wishes to use the report literature. He must drop his work to go to the microfilm room, which he rarely does, or he must ask for enlargement copies, which again he rarely does. Of the almost one million references provided in Intellofax, only 40 or 50 thousand resulted in a request for a document. The total use of aperture cards in the Copying Unit, both in the form of enlargement prints, and in the form of reading copies for use in the microfilm reading room, total only about 65,000 items per year. Since the Intellofax system discards the index to these in five years, they lose their usefulness at the end of that time. There is no way to get into them after they are about five years old. There has not been a long enough test of these to determine how permanent they are, in any event. It is clear that the scotch tape which holds the film in the aperture does leak when used in the reading machines and this should eventually result in the film coming out. That has happened in several cases in the small reading machine which runs hotter than the big ones. The cost of enlarging thousands of documents in order that the analyst may determine that he has no use for them is very high.

A hard copy file was tried before, and was given up because the file was not kept intact. It could not, at that time, be kept intact because the photostat expediter, which is now in the Agency,

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was not then available.

The assumption that aperture cards satisfy the needs for documents, however, is false. In addition to the aperture cards, thousands of documents go into 35 mm film, which present a special problems, and many thousands more are carried in the JAC room, which is actually a hard-copy file room, since it includes all of the hard-copies of documents that are kept, regardless of whether they come from intelligence agencies, whether they are classified materials, or not. This means that the analyst has to use three different approaches to get documents that are available in OCR. If they are in aperture cards, he can get enlargement prints or go to a reading machine in OCR to view them. If they are in 35 mm film, he must come view them in a reading machine or must have enlargements made at Duke Street, and billed to his Unit's budget. Since, as noted elsewhere, they are in no order on the film, it may take 15 minutes or more to find the article after the roll of 35 mm film is on the reading machine. As an alternative to this, he may get an enlargement print but only if the document is 25 pages or less, and as noted before, the average of the 35 mm film documents is 50 pages.

Setting this kind of artificial barrier in the way of use of the material, because it makes one part of the Agency budget look better, should need no further comment here. Nevertheless, one cannot avoid the conclusion that much that is decided in various parts of OCR is decided on the basis of how it will make the performance of one unit of OCR look, rather than on the basis of the needs of the analyst.

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This has already been pointed out in reference to the filming of materials borrowed on inter-library loan.

In view of the fact that a large hard-copy file must be maintained, and in view of the fact that access to a hard-copy file, if the file is kept intact, would be much quicker in terms of elapsed time than access through the finding of a film copy and enlarging that film, and in view of the fact that a very large percentage of the documents are found to be non-pertinent, an intact hard-copy file appears to be a better approach than the mixed approach now in use. Selection cannot be done without obtaining the document because the bibliographic information given by the Intellofax system is not adequate for even a rough cut in selection of probably pertinent documents. Speed and quality of service could be increased greatly by enlarging the IAC room to a hard-copy room to supply hard copies of all documents in the system for the last three to five years. It appears that a very large part of the more urgent work done in the Agency is done with materials of the last three to five years and that the longer-range studies, which require material more than five years old, could generally be done by reference to permanent files in film, and preferably in orderly rolls of film.

If a hard-copy room covering material received during the last five years were maintained, and if Photostat Expeditors were available in that room, the analyst or reference librarian, could examine the documents to determine which are pertinent and then could run off copies on the Photo Expediter and send the copies to the

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analyst for his retention or discard. This would limit the number of things that had to be enlarged or copied to those probably pertinent instead of the vast numbers that are now copied only to be found to be non-pertinent. It would also make it possible for the analyst to go to OCR and get immediate answers to his questions instead of waiting for completion of the mechanical cycle before he can find out whether there is information that is helpful or which would give him a lead to another approach to his question.

It would also be possible for the analyst to look through all the documents from a single source for a given period to find out what kind of information they were reporting at that time, in those cases in which such an approach is desirable, as appears to be the case quite frequently.

A room of approximately 3,000 square feet would provide for three to five years of hard copies of all documents received, plus a reasonable number of Photostat Expeditors, so that the analysts could make copies of items they wanted without delay. This would take the place of the IAC room, the Copying Section of the Circulation Branch, and would in large measure, make it unnecessary for anyone to go to consult the source-card file, since the documents themselves would be arranged in source-card order. Assuming that only the present 60,000 documents were pulled from the shelves, the reshelving of these documents, which should be done by OCR staff rather than by the analysts, even at the low rate of 60 items per hour, would require only about a half man-year to keep this hard-copy file in order. An

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additional 350,000 documents would have to be shelved currently as received and this would require an additional 3-1/2 man-years. Since it may be anticipated that the use of the documents would increase greatly if hard copies were available for immediate consultation, and since there might be cases in which the analyst might well sit at a table and have the documents brought to him, it would probably be well to provide for a peak-load staff of seven or eight clerical attendants to bring documents from the shelves and to keep them filed and in order.

Since the entering of items as received and claimings of items<sup>5</sup> not received should be absorbed in the acquisition process, this would substitute seven or eight stack attendants for the group of about 20 who are involved in the IAC Unit, the Copy Unit, and the Aperture Card Unit of the Machine Division. It would also make it completely unnecessary for the Search Unit of the Circulation Section to handle incoming requests for documents which is the largest part of their job, so that unit could be eliminated.

FINDINGS REQUIRING ACTION

1. The intellofax system as currently operated provides very slow service, at a very low intellectual level, at very high cost.
2. As attested by the Assistant Director/OCR, the intellofax system has broken down.
3. The results of intellofax runs are unreliable because of unreliability of encoding and decoding, as well as because of human errors inevitable in hand-pulling of cards from eight files for every code number inserted into the IBM machines for sorting.
4. Present planning for minicard offers no solution to the present low intellectual level of intellofax. It is identical also in the large number of false sorts that will result, and will tie the analyst to a reading machine to get even the titles of the documents included in the batch sent to him. This will cost more of the analysts time.
5. A printed bibliography, as an expansion of the IPI, together with an intact hard-copy file, offers promise of better and faster service to all analysts at lower cost, together with improved program efficiency.
6. Facsimile reproduction is poorer in quality, slower and more expensive than other methods now available.
7. The aperture card system, which must be supplemented by 35 mm roll film and by hard copies in the IAC room constitutes an inefficient substitute for an intact hard-copy file.

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Tab B

Space, Directive, OCR and Map Library, 1 May 1957

(This directive is purely pro forma, to provide details needed for drawings of consultants' proposals on library space; while based on data that probably will be contained in the consultants' recommendations to the DD/I, it is not at this time to be considered a DD/I request for revision of Directive "E")

"E"		"E" Tot	Old units	New Units	Surplus
p / 1	Hq. Office OCR less Hist. Int. Coll	3725			
94/1-13			3725		
94/14-15	Hist. Intell Coll	750			750
94/16-20	Liaison Division	2675	2675		
94/21-36	Machine Division	18125	18125		
95/1-7					
<u>Industrial Register</u>		17250			
95/8-36	IR less Support Br		14125		
96/1-4	Support Br. Ref. Cntrl (-)		975		
96/5-7	Proj. rm & Ref. rm.			1400	
/8-10	Index			750	
	Tot IR as modified	15850			
<u>Biographic Register</u>		13475			
96/11-19	O/Ch & Support Br (-)		4250		
/20	Ref. rm., Spt. Br.			150	
/21-25)	Soviet Br less USSR Ref rm		4800		
/27-33)					200
/26	Ref. rm., USSR sec				200
97/1-9	Non-Sov Br. less Ger-Aus Ref rm	3875			
/10	Ref. rm. Ger-Aus sect	(Tot 12925)			200
<u>Graphics Register</u>		13575			
97/11-17	O/Ch & Control Sect		1825		
/18-21	Anal. Sect & Serv. Sec. (-)		1250		
/22	Library, Serv. Sect.			375	
/23-25	Work rms & storage, Serv		1500		
/26	Ref. rm, Serv			150	
/27-31	Viewing rms, screening rms, theaters, proj. booth, storage				
			2975		
98/1-8 )	Photo Br. less library		5000		
10-13)					
/9	Library, Photo Br			500	
	Tot GR as modified	12550			
<u>Library</u>		35125			
98/32, 34	Read rm & carrels, Ref Br			4225	600
			7200		

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		Cataloging	TECH. SERVICES DIV	Ref. Services
			Acquisition	
/27-31)	Ref. Br less Read, rm & carrels			4300
33,35)	Library Chief			500
/14-15	Circ. Br less source files, stacks			5500
99/1,3-12	Stacks (3 levels at 5250			10300
	Stacks (4 levels at 4000 <u>vice</u>			Stacks 8000 2500
99/2				8000
TECH. SERVICES DIV				
98/16-24	Acquisitions Br less Book sect	1625		
/25-6	Book Sec			1375
99/13-14	Circ Br source files			
	<u>Documents Division</u>	12500		
99/15	Chief	375		4000
/16-28	Special Dissem Br	3375		
/29-33	Anal Br			4750
100/1-8	Processing Br	5375	15250	
100/9-29	Special Register	18000 18000		
74/22-3,	26-7 Map L, Ch & Ref Br			2125
/31	Atlas Coll, Process Br	1125		1125
/30	Map Coll, Process Br.	8200		9300
/24-5	Processing Br (-)	6500		
		28375 15825		
			3250	9300

SECRET