

COMBINED PROGRAM CALL, FY 1967 - FY 1972

OFFICE OF CENTRAL REFERENCE

Operating Programs, FY 1967

Program Plans and Proposals, FY 1968 - FY 1972

7 March 1966

DIRECTORATE OF INTELLIGENCE

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COMBINED PROGRAM CALL, FY 1967-FY 1972
DIRECTORATE OF INTELLIGENCE
OFFICE OF CENTRAL REFERENCE

OPERATING PROGRAM, FY 1967
NARRATIVE

I. Collection of Intelligence*

Overt

Documentary

Objectives: (1) Open Literature Procurement:

Perform all management functions relating to the coordination of requirements, and the procurement and dissemination of foreign and domestic publications for CIA, and selectively for other agencies of the government, through [REDACTED] channels (DCID 2/5); jointly with the Map Library Division, OBI, coordinate the overseas procurement of publications and maps employing the services of [REDACTED] overseas.

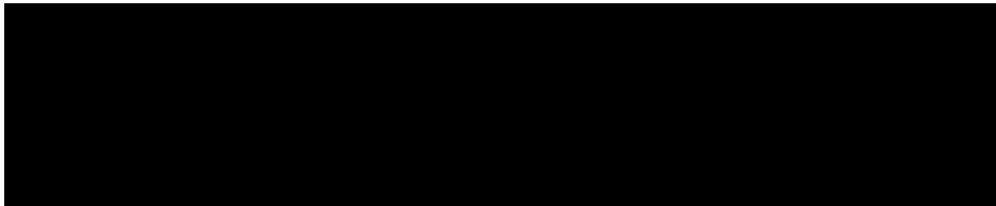
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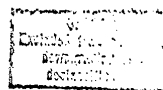
(2) Graphics Procurement:

Through the employment of a wide variety of collection methods, build and maintain an all subject, world-wide collection of ground photography, motion pictures, and videotape responsive to US intelligence needs. In support of the dramatic growth of overhead reconnaissance systems since 1956, concentrate graphic collection efforts on ground objects of particular usefulness to the National Photographic Interpretation Center in the interpretation and photogrametric analysis of high altitude images.

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(3) Biographic Data Collection:

Build and maintain a comprehensive foreign biographic data base, for all except personalities of purely military interest (DCID 1/9), employing the observation and reporting capabilities [REDACTED] screening the open literature (para. (1) above), and maintaining photographic coverage of personalities through graphics collection (para. (2) above). (OCR's biographic coverage is identified as "positive" intelligence on significant foreign personalities and excludes for the most part individuals of interest to US counterintelligence and personnel security programs.)

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a. What is done?

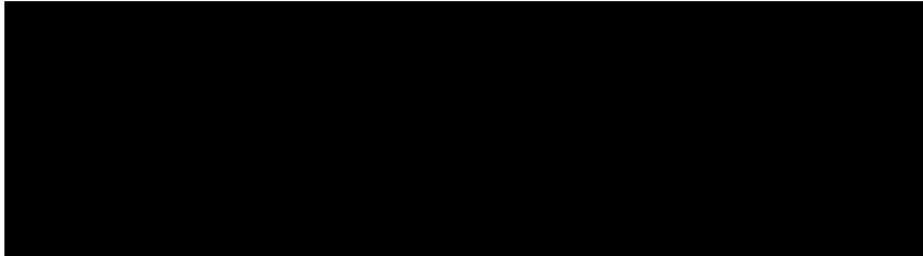
Gaps in present open literature, biographic and photographic or film collections are identified and/or customer needs for current information are specified, and collection action is initiated by the appropriate OCR division.

b. Where is it done?

World-wide.

c. How is it done?

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d. What funds and tangible resources are now associated with this work?

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A total of [redacted] is allocated for the collection of publications and the purchase of films, photographs and videotapes. The major portion of the cost is for personnel, with the residue for subscriptions, direct purchase, and equipment and supplies.

e. What manpower resources are now associated with this work?

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25X9A2

[redacted] staff professional and [redacted] clerical slots are assigned to this activity; there are [redacted] Foreign Service Publications Officers and [redacted] Graphics Procurement Officers. Every [redacted]

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25X1C4a

Currently, [redacted] to test the comparative benefits of Government vs. commercial procurement of foreign publications in one geographic area. In addition, and as [redacted]

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f. What are the accomplishments and results to date of the effort expended in this work?

Foreign publications have been acknowledged as a major source of information for production of finished intelligence and as input to the general bank of data that constitutes the Agency's memory; receipts [redacted]

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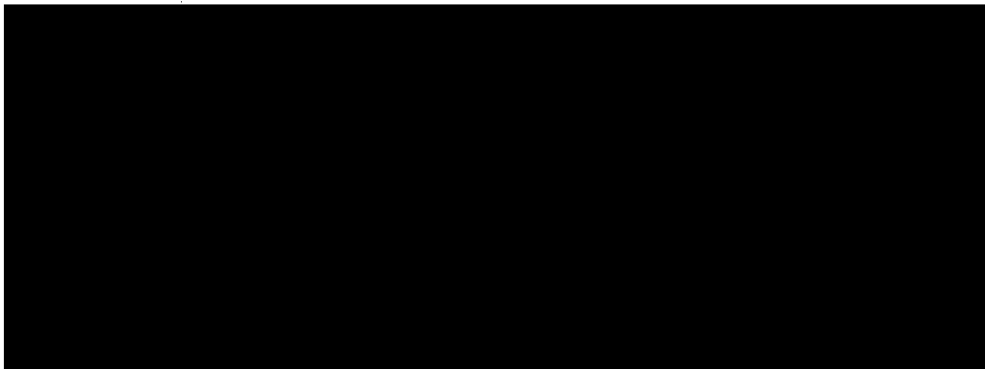
significantly increased degree in recent years, information of direct value to operations and production (particularly of aerospace, nuclear energy and military/economic intelligence) and to photo interpretation activities of NPIC with respect to target identification from aerial photographs. Receipts average 240,000 photographs annually, with "crash lab" reproduction, reflecting priority interests in the fields cited, rising by 400% over the past 5 years. The need for and use of biographic intelligence, both for intelligence and direct policy formulation purposes, are very great and increasing. All parts of the US Government, not just the USIB, use the biographic information collected.

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g. Users/Consumers/Beneficiaries

All Agency and USIB components benefit from the collection of foreign publications, biographic data and graphics - the use of the first two categories extending beyond the USIB to all US Government agencies and, indeed, in the case of publications, to the academic and commercial worlds through the Library of Congress, National Library of Medicine and others. Other sources do furnish some of the same kinds of material as that collected through Agency initiative, but the bulk comes through Agency stimulation and much of the balance is coordinated rather than duplicative. Information or specific material received is occasionally uniquely important to the user.

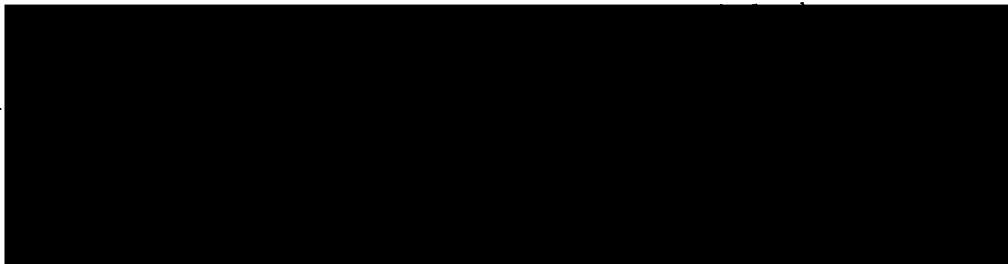
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i. Problems/Handicaps

(1) Open Literature Procurement

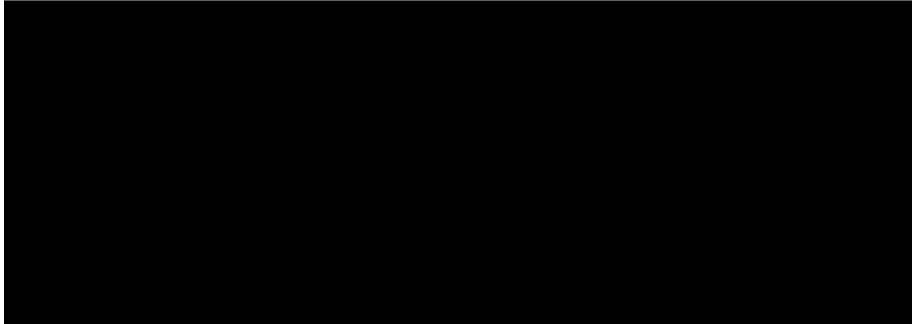
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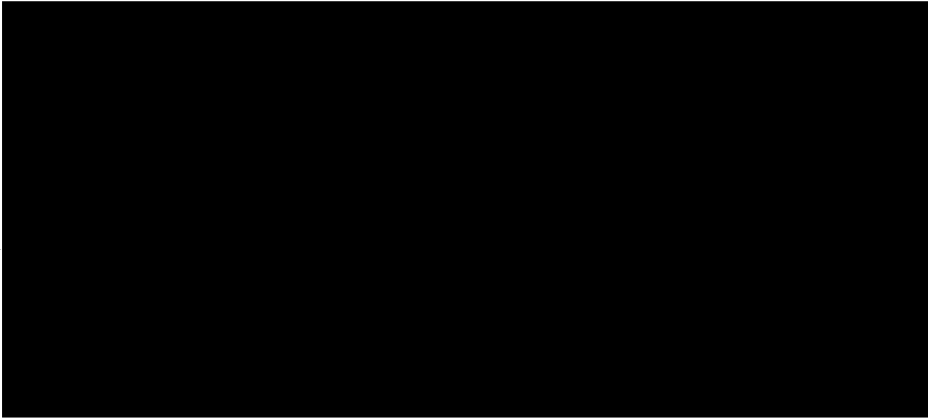
cooperative effort to assure maximum coverage of such target countries on behalf of intelligence analysts and to limit unwarranted duplication of effort.

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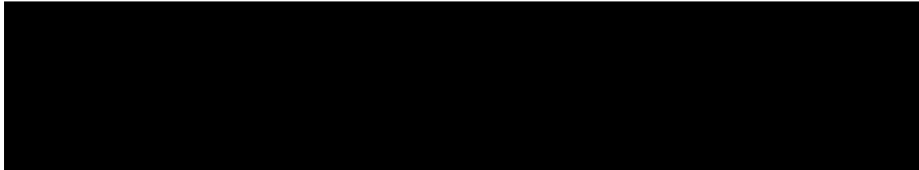
(2) Graphics Procurement

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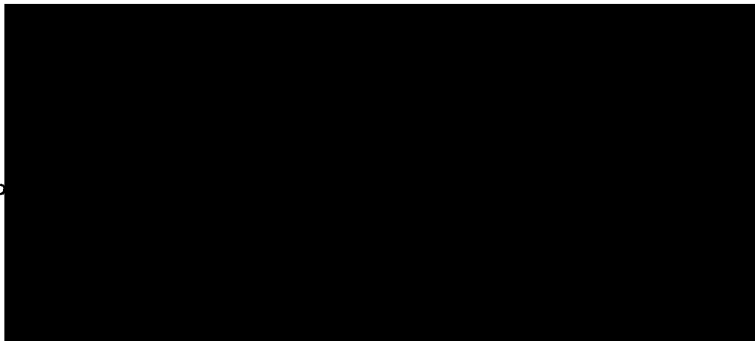
(3) Biographic Data Collection

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25X1X2



(b)

j. Efficiency/Cost Savings

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CIA's community role in acquiring and exploiting foreign publications and its maintenance of a register of translations accomplished or in process have resulted in demonstrated efficiencies, involving the 23 participating agencies in the [redacted] program and in obviating duplicative collection action (or permitting desired duplication as a planned tactic) by the other agencies (notably [redacted]).

25X1X2

Further improvement in publications acquisition and exploitation is the subject of a current USIB Committee (CODIB) study.

Improvements hoped for in graphics and biographic collection from a cost/effectiveness standpoint include continuously modified response to the increased short deadline demands of the PI backup effort mentioned above and to policy guiding or policy formulating levels on biographics. Here though, increased effectiveness is primarily a function of people, and the reduced numbers have meant increased strangulation or constriction of the product. Planned improvements are difficult; ad hoc adjustments are about all we can accomplish.

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II. Information Processing and Exploitation

A. General Management

Objective: Provide over-all direction and supervision for central reference and related facilities in support of intelligence production and operations as delineated elsewhere in this report.

A general management program is conducted in OCR by the Office of the Director, CODIB Support Staff, and the Administrative Staff. The Office of the Director manages the Agency's central reference facilities and promotes USIB cooperative efforts in the field of information processing.

The CODIB Support Staff was authorized by USIB for the purpose of assisting the activities of task teams conducting research into specific community information handling problems. It is a six-man secretariat with two professional members designated by the Department of Defense and two professionals and two clericals by OCR. It reports to the Chairman, CODIB, through the Deputy Director/CR who is presently Secretary to CODIB.

The Administrative Staff provides administrative support for the operations of the Office of Central Reference, both departmental and field, in the areas of personnel, training, career service, logistics, budget, finance, records management, security, cover, safety and emergency planning. In the performance of its support activity, the Staff provides advice, and plans and implements procedures relative to these functions in conformance with Office policy and CIA regulations.

The cost to OCR for general management during FY 67 will be [REDACTED]. The major part of this cost is for personnel. A total of twenty-five slots is assigned to this function.

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General management is expected to continue relatively unchanged in numbers and costs over the next five years; however, we have recently taken steps to increase the efficiency of management review of the Office activities by breaking them out into three major program areas: (1) information services; (2) document storage and retrieval;

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and (3) foreign literature acquisition and exploitation. The present Special Assistant, Executive Assistant, and Chief/██████████ 25X1A8a Division, respectively, serve as "monitors" of these program areas, and, with the Director, his Deputy, and the Chief/Administrative Staff, constitute the Office's Executive Committee. Our present thinking is to evolve during the pre-CHIVE period from the monitoring to a line supervision mode (already in effect in the foreign literature area), with the heads of each program area at the supergrade level. It is highly probable that this latter action would generate a need for a new staff assistant position to support the Director and Deputy.

Phasing out of extant line functions into the five CHIVE geographic area divisions will go on gradually during Fiscal Years 67-70, the largest increment phasing into CHIVE in 1970. This will change the Office superstructure, but details have not yet been developed. Also, the Office's system analysis capability (the Development Staff) is currently totally subsumed within CHIVE; our intention is to effect gradually other system studies in the non-CHIVE Library, dissemination, or other organizational/functional complexes and to retain a permanent front office system analysis staff capability after CHIVE has gone operational.

In addition to these large-scale and complex internal management areas, the Office of the Director is, and to an increasing degree is expected to be, involved in Community information processing planning and policy via the CODIB mechanism; in non-intelligence (but directly relevant) US Government planning via the Committee on Scientific and Technical Information (COSATI); and, in an advisory/educational/ coordinating capacity on a bilateral basis vis-a-vis such planning as that for MIT's INTREX, Library of Congress automation plans, and the like.

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II. Information Processing and Exploitation (Continued)

B. Other Information Processing

1. Exploitation of Foreign Publications

Objective: Exploit, as a service of common concern, foreign language publications for intelligence information; and coordinate similar activities by other elements of the intelligence community (DCID 2/4). Provide translation support to Agency components and, to the extent possible, other US Government agencies.

a. What is done?

Receipts from the world-wide publications collection activity described in Section I are screened for information relevant to both general and specific CIA and other USIB-agencies' requirements, and, on a highly selective basis, reports containing extracts or summaries are prepared. Translation services are performed for CIA offices, and to the degree possible, for other USIB components; exploitation and translation activities of the intelligence agencies are coordinated to avoid duplication of effort. [redacted] serves as focal point for machine translation interests.

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b. Where is it done?

Service is provided at Headquarters, [redacted]

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25X1A8a

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c. How is it done?

(1) More than 40 controlled serial reports concerning priority areas identified by the USIB agencies are published in-house. In addition, the field offices publish more than 80 unclassified serial reports.

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(2) Translation service is provided for all areas of CIA and in the rarer languages, for other USIB agencies. More than 2,000 translated items are added to the Consolidated Translation Survey (CTS) Index each month and listings of these additions are published. Reference to the Index (containing data on translations accomplished or in process) prevents duplication by others and permits significant dollar savings to the US Government each year. Competence exists in 65 different languages.

(3) Jointly with the Office of Computer Services, under Project CHIVE, a machine-assisted translation project (ALP) is currently being tested. On a continuing basis, [redacted] provides the primary link to the Joint (CIA/DIA/NSF) Automatic Language Processing Group (JALPG), on behalf of the CIA member (currently Mr. Borel). 25X1A8a

d. What funds and tangible resources are now associated with this work?

25X1A1a Salaries and benefits (including overtime) will cost [redacted] 25X1A1a
25X1A1a in FY 67 and part-time and contractual personal services, [redacted] A total of [redacted] will be spent on contractual translations. Other administrative, equipment, and supply costs amount to approximately [redacted]. (See statement below on unbudgeted FY 67 items, for a proposed reinstatement and expansion of resources.) 25X1A1a

e. What manpower resources are now associated with this work?

25X9A2 The FY 67 T/O provides for [redacted] 25X9A2 professional and 54 clerical positions. Part-time and contractual personnel assist in this operation; the resources available through [redacted] number about [redacted] staff members and [redacted] contract employees. 25X9A2 25X1A8a

f. What are the accomplishments and results to date of the effort expended in this work?

Following the receipt and screening of approximately 39 million pages of foreign language materials last year, this activity published 400,000 pages of translated, abstracted or summarized information responsive to customer requirements. Even with

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screening and reduced T/O, this represents an 8% increase over the preceding year's page publication figure. The Consolidated Translation Survey Index, which now contains over 1.3 million citations, served as the vehicle for prevention of unnecessary duplicative translation, saving the US Government an estimated \$550,000 during FY 65 and a cumulative total of \$4,400,000 since 1958. The value of the open foreign literature as a major input to intelligence production was convincingly reaffirmed during FY 66 during a CODIB Task Team Survey of USIB Community foreign publications interests and in response to an internal CIA survey of customer evaluation of the Foreign Document Division products. Developmental advances in machine-assisted translation were manifested in the implementation of the ALP system for testing purposes; the test period is to run one year (until about January 1967)

g. Users/Consumers/Beneficiaries

25X1A8a

Users include the Agency, the USIB Community, other agencies of the US Government and, in effect, the world at large, the latter two groups through the unclassified publications of the [redacted]. Open literature constitutes a major portion of the information in intelligence production (estimates ranging to 90% of input for Soviet economic intelligence production), and plays a rapidly increasing role in backing up the photo-interpretation work of NPIC. Other translating or abstracting facilities exist and serve as complementary vehicles when time factors permit. Open literature receipts are often uniquely significant to production and operational components.

h. Related Work of Other Agencies

Other agencies throughout the Intelligence Community have limited translation capabilities for the support of immediate or specialized interests. The only sizeable effort is conducted by the Air Force/ATC; CIA's work is closely coordinated with Air Force and the others. The CODIB Task Team referred to above is seeking new arrangements, procedures, techniques for Community action on the publications front.

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i. Problems/Handicaps

(1) Publication of the world's literature continues to expand at enormous rates. Obviously selection from the total is required, but selection can only be accomplished after scanning. Since much of that which is received is unclassified, it can be, and is, contracted out; selection for contracting on the basis of intelligence requirements, however, is a professional staff function, as is the classified in-house translation, the reverse translation from English to other languages to support the DDP, the guide/translator duties vis-a-vis foreign visitors and U.S. delegations abroad. T/O cuts have had a serious adverse effect on this activity and recruitment of linguists to keep up to strength is not currently successful.

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(2) Notwithstanding the repeated customer statements concerning the value of open literature, OCR is facing heavy budget cuts in the [redacted] activity because it is unclassified and because it involves, essentially, expenditures for contractual rather than staff personnel. This "savings cut" is false economy since (a) the source material is so consistently rated of major value; (b) some part of that which is cut from [redacted] must be performed by cleared staff personnel; and (c) the [redacted] dollar rates for publication are far below those charged by commercial translation services. Receipts are up; requirements are up; T/O is down and major new programs are requested regularly, the latest being a DDS&T request for significant increases in Chinese Communist coverage. 25X1A8a

(3) On the machine front, problems to be tackled through further developmental work or new R&D include breaking the input bottleneck (particularly re stenotype/flexowriter equipment), advancing character recognition capabilities, a breakthrough in semantic analysis utilizing EDP gear, development of additional machine language dictionaries, and the like.

(4) Finally, on the personnel front, a growing requirement is noted for aural linguistic capabilities to handle increased audio source materials. OCR has few people now capable of handling other than documentary materials. A significant recruitment and training effort is anticipated.

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j. Efficiency/Cost Savings

Efficiency in foreign language exploitation results from the coordination of translation activities through the government as established by DCID 2/4 and maintenance of the Consolidated Translation Survey Index which eliminates duplication of effort as discussed above. Also as noted, the CODIB Task Team is seeking additional steps to improve effectiveness throughout the Community. Finally, the basic purpose of the ALP system is to improve at least one of the three facets of the cost/speed/quality cluster without downgrading the other two.

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B. Other Information Processing (Continued)

2. Dissemination Services

Objective: Develop and implement dissemination policies and procedures in coordination with other offices of CIA and of the intelligence community, including preliminary investigation of automatic dissemination possibilities and/or new devices to improve human dissemination; receive and disseminate incoming intelligence reports and publications; disseminate CIA-produced reports.

a. What is done?

Information and intelligence reports are disseminated to Agency and USIB components; copies are distributed to 225 points in CIA and other agencies according to standard copy distribution and/or specific user subject/area requirements.

b. Where is it done?

Headquarters.

c. How is it done?

CIA and USIB components' subject interests and multiple copy needs are periodically validated or updated by the recipients. Resultant data are recorded in a requirements manual. The incoming documents are read against these requirements and appropriate dissemination is accomplished. The incoming material is disseminated within 1-2 work days after receipt. A record of distribution is maintained for security accountability.

d. What funds and tangible resources are now associated with this work?

The major cost for this dissemination activity is ██████████ 25X1A1a
for personnel. An additional cost of ██████████ is spent on
██████████ 25X1A1a

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reproduction equipment and supplies; some 720,000 pages were reproduced in FY 65 to supplement insufficient original copy receipts.

e. What manpower resources are now associated with this work?

25X9A2

people are assigned to this activity. Professional people determine the dissemination (i.e., match the content of the document with the known user office subject/area interests) and clerical personnel perform the actual distribution.

f. What are the accomplishments and results to date of the effort expended in this work?

Over 800,000 information and intelligence reports totalling approximately 14 million copies are processed annually. Ninety-two per cent of this material originates outside of the Agency. The one to two day distribution of this large volume represents the fastest dissemination system in the Community; the relevance, or match of that disseminated with that sought, is sufficiently good that in several surveys of over-all OCR activities, the dissemination role has consistently received good marks.

g. Users/Consumers/Beneficiaries

Production offices of the Agency receive the main benefits from this dissemination activity, although dissemination is Agency-wide. The analyst receives both collateral and sensitive source information that is pertinent to his responsibility. A by-product of this activity is the maintenance of a dissemination record, which is used by Security to recall documents or to identify recipients for document tracing purposes; this precludes maintenance of numerous log entries along the route.

h. Related Work of Other Agencies?

All agencies distribute their reports (DIA having the central responsibility within the DoD intelligence community). No

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official agreed division of labor exists in the USIB community but reading requirements for subject coverage, and standard distribution copy requirements are levied across agencies. Considerable negative impact can result when backlogs in other agencies build jams which when broken flood us - as occurred not to long ago vis-a-vis DIA. Another CODIB Task Team (this one on Content Control) is looking at the community dissemination activities to see if improvements can be introduced, particularly at the point in the field-to-analyst flow where control is, theoretically, simplest, i.e., at the dozen-or-so headquarters points (such as FI and DCS) where field reporting is put on mats for subsequent large volume reproduction and distribution.

i. Problems/Handicaps

A major problem is an apparent lack of management awareness or understanding of the dimensions, complexities, and growing significance of information handling problems and of the need for heroic measures to resolve them. Volume of receipts (the rising tide of the product of the multi-source collection activities) is very definitely not subject to our control and has direct and often fairly staggering manpower implications; the method of stemming the tide is not to reduce the number of disseminators - this just piles it up in the hall and slows distribution. The solution to redundant or unnecessary reporting is more effective collection management, which, in turn, is linked to the existing bank of information. As noted in the statement of objectives, there are certain ADP or other systems approaches which will be explored to match more carefully documents distributed with user profiles and/or to screen out irrelevant material, or to produce announcement lists without actually doing across-the-board distribution. One paradox is that the fact that the Agency does have the best dissemination system in the community sometimes works to the disadvantage of our storage and retrieval role, i.e., the analyst can maintain his own all-source file and he may then fail to make consistent use of the central system. This not only produces file space and

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cost problems but has led to erroneous finished intelligence based on partial or outdated information (the central system always being more comprehensive, and where machine-controlled on a named-object basis, able to make comparisons and orderings not possible by the analyst himself).

j. Efficiency/Cost Savings

Dissemination efficiency in terms of relevance is accomplished by periodic updating of the reading requirements manual and by customer feed-back. Standard distribution arrangements save professional re-reading time. Speed-up in distribution may result from selected automatic dissemination, from use of the LDX system as a complement to regular dissemination, and from tie-in with Clandestine Service (and other) plans for machine-language by-product generation of field reports and transmission over the communication network. On a more mundane level, increased community attention to the problems created by poor copy originals and single-copy enclosures could lead to cost and time savings.

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B. Other Information Processing (Continued)

3. Information Retrieval

Objective: Design, develop, and operate such central reference facilities and intelligence documentation system as will ensure that appropriate intelligence materials are accessible to all offices of the Agency and, to the extent possible, to other agencies of the intelligence community.

a. What is done?

*(1) The Office of Central Reference operates the CIA Library and other specialized collections or registers of intelligence data, including ground photography, motion pictures, and videotape.

*(2) Maintains biographic information and produces biographic intelligence, as a service of common concern, on foreign political, economic, scientific, technical, social, and

25X1X2

(3) Maintains the Agency's machine-supported special intelligence (SI/TKH/RD) document library and provides retrieval, particularly concerning people, organizations, subjects/commodities and geographic areas.

(4) Maintains a selective all-source file on foreign installations, with particular emphasis on targetting interests, and particularly but not exclusively, in support of COMOR, NPIC and DDP operational planning.

* For a statement on OCR's responsibilities for coordinating the collection of biographic and graphic materials, see Category I. Collection of Intelligence, Overt, Documentary.

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- (5) Designs, tests, and plans to implement an integrated, all-source, information storage and retrieval system (CHIVE) to consolidate most of the functions described above.
- (6) Promotes interagency cooperative efforts in the field of information processing (DCID 1/4).
- (7) Conducts and coordinates liaison in the United States between CIA and other US Government agencies, and coordinates a program of briefings and debriefings for selected US Government officials and foreign nationals.


b. Where is it done?

The input processing and liaison are performed at Headquarters; the reference service is available world-wide.

c. How is it done?

- (1) The Office of Central Reference offers a general library and centralized intelligence document collection both for document retrieval and reference support, with a subject/area index to CIA, USIB and selected non-USIB, foreign government and contractor reports.

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- (3) Provides document and information retrieval from the Agency's central library of sensitive intelligence documents, backed by machine-controlled indexes and card files.

- (4) Provides individual prints, or collections of photographs, training/operational/production-support films, or machine-listings pertinent thereto, from an extensive collection of still and motion picture photography.

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25X1X2



(6) Promotes USIB cooperative efforts in the field of information processing through the CODIB Committee (DCID 1/4).

(7) Arranges and conducts interagency liaison; coordinates the Agency briefing and debriefing program.

d. What funds and tangible resources are now associated with the work?

This activity's resources include: 375,000 dossiers and some 17,000,000 name file references on personalities; 195,000 files on foreign industrial plants (including 60,000 high priority target installations); 1,000,000 still photographs and 20,000 films; 11,000,000 intelligence documents; 100,000 books and 3,000 newspaper and periodical titles. The cost of this operation is

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e. What manpower resources are now associated with this work?

The manpower resource for this work is ^{25X9A2} [redacted]. Outside consultants have been used on specific problems or for special surveys of procedures.

f. What are the accomplishments and results to date of the effort expended in this work?

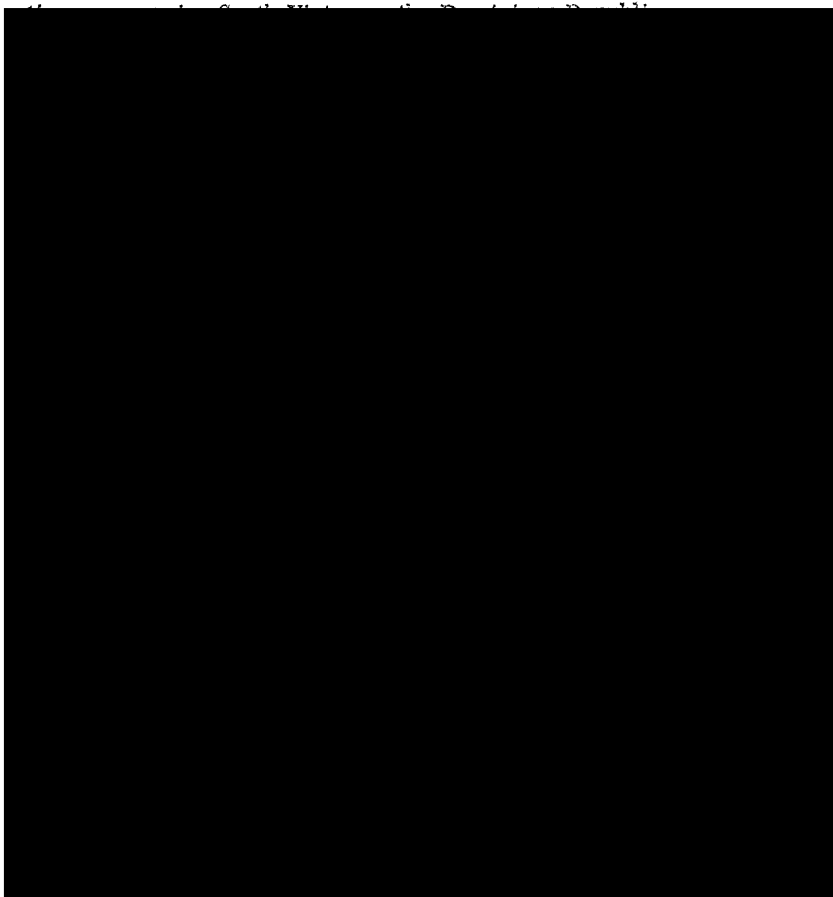
Although constrained by the limitations inherent in punch card system speeds and data storage capacities and the physical problem in assembling all-source data which cuts across all the Office organizational components, this central reference facility maintained its role in the Community as the largest and most effective active system. Its machine-language (punch card) data base is probably the largest in the country; its general document retrieval capability, particularly when dealing with concepts and general subjects, is the strongest

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available in the Intelligence Community - nearly 50% of its machine-search collateral document requests come from non-CIA agencies (particularly DIA), although this is not a service-of-common-concern responsibility.

General reference and bibliographic support from the various collections was furnished in response to some 160,000 information requests during FY 65. Biographic production continued its upward pressure curve in support of policy planning and opera-

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on CIA, and particularly OCR. Also, approved recommendations of the Presidents' Foreign Intelligence Advisory Board concerning information processing in the Community resulted in the establishment of two CODIB Working Groups and a PFIAB panel (Knox Panel), adding to the list of outside activities in which OCR management and working levels were deeply committed.

g. Users/Consumers/Beneficiaries

The primary users of CIA's reference services are the Agency's finished intelligence production offices but the support is Agency-wide; some parts of the system being deeply involved in clandestine, or other operational/collection management planning. The support furnished is significant (sometimes crucial and often unique, particularly in format) in that it is information which is being furnished - information for policy planning or support at all levels. Other sources are available: analyst working files, colleagues organizationally elsewhere, other agencies files, open literature, and the like, but the job of central reference is to retrieve rapidly and to organize all relevant materials in support of the requester, sometimes complementing the foregoing sources, but frequently also drawing upon the holdings of other facilities.

h. Related Work of Other Agencies

Information processing activities are available in all agencies but these are directed generally toward their own particular needs. CIA has been directed (DCID 1/4, 1/9, 2/4, 2/5) to perform certain tasks for the community. Undesirable duplication of effort at a minimum level is sought through interagency committee actions such as those of CODIB and through close relations between agencies at the working level.

i. Problems/Handicaps

The problems are sometimes overwhelmingly vast; they include very limited management awareness (1) of the real role of information processing in the intelligence cycle, (2) of the intricacies and complexities of man/machine systems including

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(a) the limitations as well as capabilities of computers, (b) the inevitable information loss in changing natural language to coded representation for storage in files, and (c) the human engineering aspects of system design, from work environment to recruitment, wage and classification policy. This management education need (not by any means limited to intelligence, but typical of industry, the academic world and other government agencies) is, of course, felt most strongly during budget review periods and when attempting priority comparison among competing programs on the collection and production sides. Related areas of management decision which impact on our information processing world include those regarding (3) ADP policy (centralization vs. decentralization, particularly since we could have replaced punch card gear with a small computer for pre-CHIVE processing some time ago), and (4) R&D policy (particularly in allocating funds for information processing research [ORD/DDS&T] vs. development [modifications to equipment/procedures within the OCR/DDI line operations]).

Another kind of problem, which imposes constraints not often recognized by management or users (and occasionally ignored by system designers themselves) is the state of the art. Hardware improvements in computers themselves have not been matched at a comparable level by easy-to-write-and-use computer programs; better input/output devices (including approaches toward breaking the bottlenecks caused by the need for human involvement in key punching or flexotyping and the speed and font constraints at output in present printing gear); or by intellectual improvements in indexing theory - particularly in seeking unambiguous and yet natural-language-like coding of concepts and general subjects.

The big problem that is recognized is that of the "information explosion" or, as it is now often called, the "information revolution". The quantity of information continues to rise, almost exponentially, and particularly in the Community, as more sensors pour in more billions of analog and digital bits for data reduction to some human-understandable form. Project CHIVE is our evolutionary attempt to deal with present and future needs for integrated, rapid and relevant retrieval from this flood. The key to these problems is people - trained and motivated people, not hardware or CIA R&D. At present, both existing line operations and

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new system design efforts suffer because of (1) severe T/O and budget cuts in recent years in the face of continuing source receipts and customer requests; (2) an unfavorable wage/classification situation leading to continuing attrition losses to other offices/agencies/industry where material gain is greater; and (3) an on-board vs. T/O gap not being adequately filled by existing recruitment programs.

1. Efficiency/Cost Savings

Specific cost savings in this activity in FY 67 include the cancellation of the Monthly Index of Russian Accessions (MIRA) (\$370,000) at the Library of Congress. There is a constant re-direction of effort as customer priorities change and as present line operations are constricted to provide manpower to CHIVE and to meet T/O cuts. Punch-card equipment has been pushed beyond the limit of sophistication expected of it by the manufacturer. CHIVE, of course, is the major activity to introduce greater efficiency; it is by no means certain that it will introduce directly calculable cost savings.

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II. Information Processing and Exploitation (Continued)

C. ADP Systems

Objective: Implement advanced man-machine systems to support data processing activities related to intelligence collection, analysis and production.

a. What is done?

Plans and provides machine support to intelligence data handling problems, including those concerned with data base files and machine-prepared publications.

b. Where is it done?

Headquarters.

c. How is it done?

Performs machine searches of over 50,000,000 punch card files; locates pertinent references, and arranges them in the desired sequence; and produces for the consumers' retention a printed copy of the selected data. This machine language index capability with its punch card base is complemented by a microstorage system with its own hardware, the basic storage medium being a 16 mm aperture card.

25X1A1a

d. What funds and tangible resources are now associated with this work?

25X1A1a

A complex of IBM punching, sorting, collating, and tabulating machines that costs [redacted] annually is employed in this operation. Personnel costs are [redacted] 25X1A1a

e. What manpower resources are now associated with this work?

25X9A2

25X9A2
A labor force of [redacted] people is divided into machine operators, supervisors, and a small group of punch card operation planners. Note also that the new system design work (Project CHIVE) discussed in Section II.B.3. includes an Office complement of [redacted] slots as part of a joint OCS/OCR CHIVE Task Force of 75 slots.

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A portion of the OCR complement, now part of a Development Staff will, after CHIVE, serve as a base for a continuing system analysis capability looking at improved design in the Office as a whole. The CHIVE Task Force manpower resources are included in Section II.B.3.

f. What are the accomplishments and results to date of the effort expended in this work?

Over 5,000,000 punched cards are processed annually to support the document and information retrieval services offered by OCR. Punch card machine programs have been developed for specific other office projects within CIA. This activity has also programmed the card input portion for special computer projects in the Office of Computer Services; participated in systems design and implementation activities in support of Project CHIVE; and provided advice and machine support to the CODIB Support Staff in manipulating data relevant to certain of the extant CODIB Task Teams.

As previously noted, the punch card systems developed here represent highly sophisticated use of EAM equipment - in fact, what we have evolved from pioneer development of a man/machine system approach begun in 1947. Even with the constraints in storage capacity in an 80 column card and in speed in EAM equipment, the system nevertheless serves many customers effectively, including those in both CIA and DIA, who have computer systems for special limited file-size or highly formatted data applications.

g. Users/Consumers/Beneficiaries

Direct machine support is provided to OCR for the fulfillment of its mission. Support is also provided on a limited basis for a variety of special projects of other CIA and non-CIA components. Obviously, retrieval requests levied on the Office reference facilities whose information has a machine language base, must have a machine operation backup; therefore, OCR management is, itself, a direct beneficiary of this activity. We have stated, and continue to believe, that management control over the tools used to fulfill our mission (in this case, ADP hardware) is an absolute must.

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h. Related Work of Other Agencies

All other USIB agencies have, or are developing, ADP systems. For years we have reproduced and distributed on request all, or portions, of our card files to them. More recently we have moved increasingly in the direction of exchange of computer files. Both bilaterally and through CODIB, we are active participants in approaches for improved Community systems, information exchange, better communications links for remote query and display and the like. There are many related efforts under way to improve information exchange and reduce unnecessary duplication besides CODIB, CHIVE and bilateral operating division arrangements; these include those of the Knox Panel of the PFIAB; BoB Committees and general pressure for ADP standardization; a national network proposal and less ambitious facet improvements therein stimulated by the OST/PSAC/Committee on Scientific and Technical Information (COSATI); plans to automate the Library of Congress; a large MIT-sponsored experiment in remote-query, file sharing library links called INTREX, and many more. We are aware of and will use what's useful from all of these.

i. Problems/Handicaps

The problems relevant here have been sufficiently described in Section II.A.3.i. above; to repeat only the categories, they include: (a) management education; (b) state-of-the-art constraints; and (c) the information explosion. The solution, to repeat, is people; the no-longer-resilient line operations and over-all Office management must find the time to follow and participate in the additional non-CIA activities mentioned in II.C.h. above.

j. Efficiency/Cost Savings

Programs and procedures are constantly reviewed to attempt more efficient operations; the big effort now is CHIVE.

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a. Essential

- (1) 25X9A2 25X9A2 positions [redacted] All in Program II.B.3 (Information Retrieval) for the Biographic Register, Graphics Register, Special Register, and Foreign Installations Branch (see paras. 3-6, below).
- (2) 25X9A2 25X1A8a [redacted] for foreign language exploitation [redacted] (see para. 7, below).
- (3) 25X9A2 [redacted] for training (see para. 8, below).

b. Very Highly Desirable

- (1) 25X9A2 [redacted] for an LDX link to the Key Building (see para. 7, below).
- (2) 25X9A2 [redacted] for travel (see para. 8, below).

3. The Biographic Register, with a DCID 1/9 assigned production responsibility, and the Office's most direct and immediate support responsibility to the highest levels of CIA, State and other agencies and to the White House, is getting farther and farther out on a limb whose base is weakening. The absolute need to respond to quick crisis-oriented ad.hoc requests means that less and less time goes to processing biographic data and more time to writing reports - the inevitable result being that time is wasted on the writing and searching through multiple manual files. Dossiers are not being updated; basic data is not being coded for machine processing; manual files are multiplying; reference aids such as Chinese Communist Men of Science, last published in 1962, are not being produced; the basic NIS-supporting Biographic Handbook series is 50% behind its planned (and committed) schedule. We seek 10 extra slots for BR in FY 67 and project a need for 10 per year through 1972.

4. The Graphics Register has not had a T/O increase since 1952 in spite of a four-fold increase in requests, particularly in support of target identification requirements of NPIC. Vast amounts of photography in open literature go unprocessed although NPIC has testified time and again to its great value. Excellent photograph

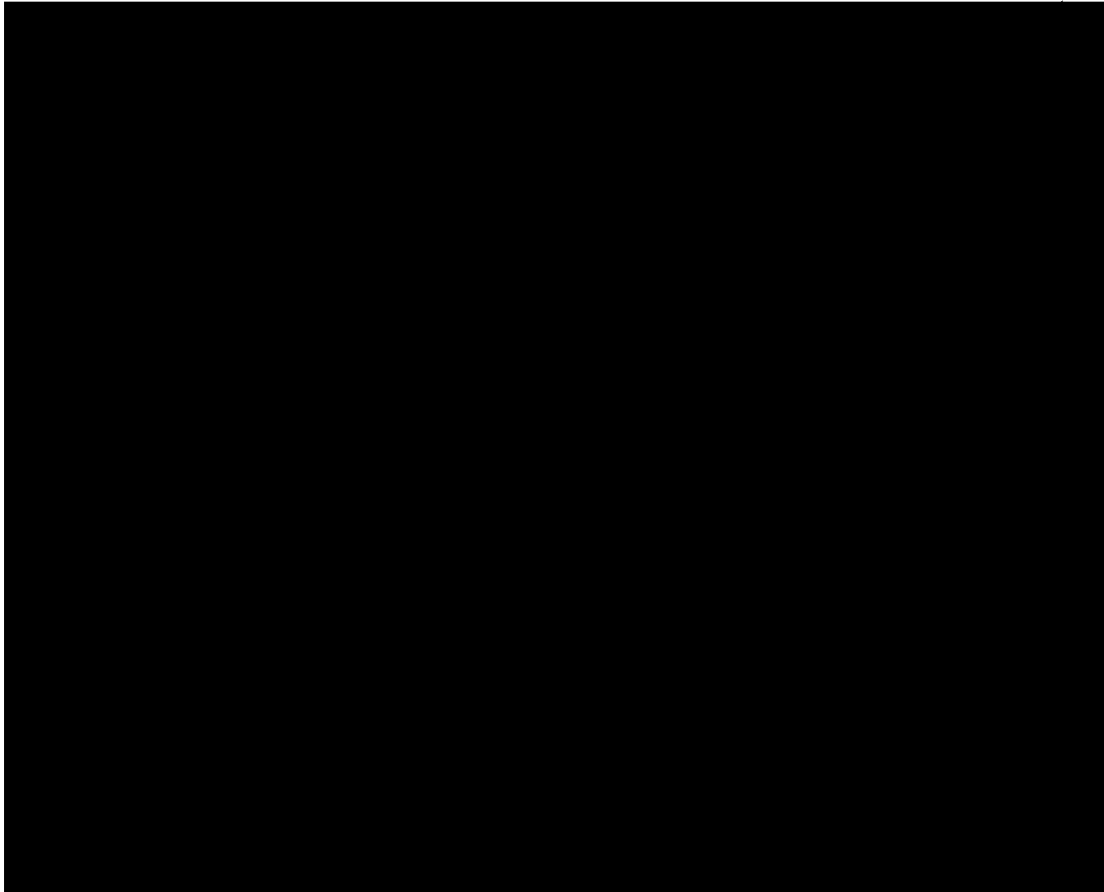
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25X9A2

collections, including increasing amounts of color prints and slides, available from US travelers, go unexploited. Video coverage is minimal now but significant increases in valuable footage are expected; a new collection technique developed for NSA by [REDACTED] makes possible significant low cost collection of denied-area telecasts. We seek an increase of [REDACTED] slots for GR - and project a need for [REDACTED] per year through 1972 - to realize a doubling of present effort to support, among others, the planned NPIC four-fold increase.

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25X1X2



25X1X2

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7. Besides the salary funds of [redacted] positions, we seek in
 FY 67 an additional [redacted] for [redacted] translation of open literature. Agency
 and Community testimony as to the value of open literature was cited above in
 Section II.B.1. and is documented in the findings of the CODIB Task Team III;
 likewise, the false economy in taking funds from [redacted] because it is a contract
 activity was noted. The apparent low-priority assigned to [redacted] in a recent
 budget exercise was the result of a listing arrangement aimed first, by direction,
 at saving people and slots. It is not now, and never was, an OCR judgement that
 open literature exploitation is of low priority - and the written statements of
 senior officers in the DDI and DDS&T production offices, in DDS&T research
 programs, and DDP operations support our view. The latest significant require-
 ment in this field is a request, signed by the DDS&T, for a major increase in
 exploitation of Chicom scientific and technical literature, a project which OSI
 was planning to contract out to some other organization than [redacted]. Use of the
 [redacted] asset for this purpose will definitely save Government money but
 even its reduced cost is unbudgeted as of now. Finally, since [redacted] is physically
 located in the Key Building, we had planned but then removed from our FY 67
 budget an LDX link to Headquarters. This could materially speed up processing
 of the increased quick translation requirements which transcend the language
 capabilities of the small staff maintained in Langley; we view LDX as a highly
 desirable major communication link in our central reference facilities.

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8. The restitutorial training and travel money request [redacted]
 specifically relates to current ADP systems analysis and programmer training
 for our CHIVE Task Force people and ADP familiarization for our current
 non-CHIVE operating division personnel. With nearly 50% of the office (a
 projected [redacted] slots) identified for change-over to a new computer-backed
 geographic organization, training needs are great and must be phased. Resti-
 tution of travel funds is in support of CODIB Task Team activities, for conference
 attendance and state-of-the-art awareness vis-a-vis CHIVE, and for foreign
 travel concerning selected graphics, biographic, literature acquisition and special
 intelligence programs.

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STATEMENT ON UNBUDGETED ITEMS, FY 1967 (Continued)

II. ADP Systems

1. By agreement, Project CHIVE computer support through Phases III and IV (implementation and operational testing) has come and will come from DD/S&T/OCS. However, as stated above, CHIVE is a design effort with no payoff in terms of operational support to customers until 1967, and then only with respect to Chicom materials. Customer needs justifying CHIVE in the first instance cannot be deferred and it behooves us to introduce pre-CHIVE improvements to the extent possible and feasible. One of the ways to introduce improvements is to use the best tools currently available.

2. OCR is, by BoB and DoD definition, an ADP facility (and according to one member of the current Knox Panel one with the largest central reference machine language data bases in the United States, if not the world). Electronic data processing (computer) equipment is the latest version of ADP gear. By converting certain of our present Machine Division and Special Register punchcard files and henceforth processing with computer equipment, we can both improve present operations at no significant cost increase and gain the kind of on-the-job experience with a computer operation not available through training courses.

3. Our intent is to replace at least 20 pieces of EAM equipment, with a monthly rental of \$5,157 with an IBM 360/30 system, with a monthly rental of \$5,255. Present files identified on a priority basis for conversion and/or future EDP processing include those listed below. In addition, there are over twenty other possible candidate files, [REDACTED] and personality index records (over 1,500,000 cards):

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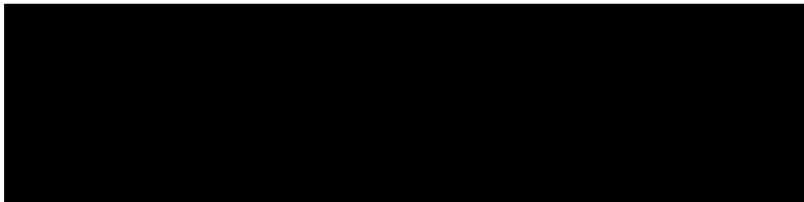
- a) BR Dossier file - About 3,000,000 punch cards. Average monthly growth is 10,000 cards with 33,000 transactions. Six different card formats are now required to record all information pertinent to an individual.

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- b) SR "T" Control Project - 20,000 cards with monthly growth of 6-8,000 cards. Cost of EAM processing of cumulated listing (13 hours for the first month, 30 hours in the sixth month) and title control are very expensive compared with computer processing cost.

25X1X2



- d) SR Keyword Title Indexes - Over 1,000,000 punchcards with monthly growth of 12-15,000. EAM processing, excluding keypunching, approximates 50 hours in the first month and 80 hours in the final month of cumulation. A total of 75 copies is printed. To make maximum use of EDP we would re-design input format.
- e) CGS Requirements Registry - Over 600,000 cards and 13,000 monthly transactions. Nine card formats cause the same kinds of EAM limitations as with the BR dossier file and FIB index.
- f) SR Organizations Dictionary - About 150,000 cards, the basic problem being that about 500 hours of machine time per year are expended on cumulative and supplemental listings, and a complete cumulative listing for Soviet organizations can only be provided to SR analysts as a working desk tool once a year, because of the cost.

4. In addition to some conversion of existing programs, we assume a combination of Machine Division and Special Register EAM/EDP operations and a ten-year current file life (the CHIVE interface task with inherited and non-converted files or converted but not re-designed in CHIVE format files). IBM has indicated that a 360/30 system could be delivered during FY 67.

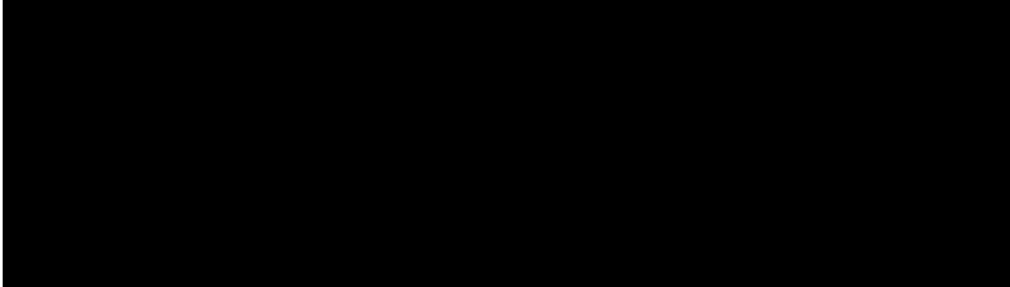
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5. Site preparation costs would be incurred but the over-all operational costs would approximately equal that of our present EAM operation. We mention it here because of the long hiatus in discussion of over-all Agency ADP policy regarding centralization vs. decentralization. We note our continued plea for our own computer capability in the past as (a) an upgrading of our extant ADP facility; (b) a means of improving service now, in parallel with our continuing CHIVE design; and (c) an invaluable training and on-the-job experience opportunity for application in the operating CHIVE world. We have lost at least three years while this debate has been going on. Slippage and problems have arisen in IBM's 360/67 planning and operating schedule, particularly involving software. And until the 67 is in operation, no valid statistical base will exist to evaluate cost/effectiveness vs. mission accomplishment arguments in a centralized vs. decentralized environment. We contend, too, that OCS cannot take on our activities now or in the near future and that the information support to the customer has suffered and will suffer if jurisdictional debates continue. We further believe that in about 1968, when about half of the CHIVE geographic structure has become operational, we would evolve to a 360/50 to handle the total OCR machine backup needs, CHIVE and non-CHIVE.

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PROGRAM PLANS AND PROPOSALS
FY 1968 - FY 1972

I. Collection of Intelligence (Overt - Documentary)
25X1X2



25X1A2g

2. Manpower and funds required over the reporting period are estimated as follows:

<u>Year</u>	<u>Funds</u>	<u>Manpower</u>
FY 68	25X9A2	
69		
70		
71		
72		

II. Information Processing and Exploitation

A. General Management

1. No comment is required beyond that made above in Section II. A. of the FY 67 Operating Program.

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2. Manpower and funds required over the reporting period are as follows:

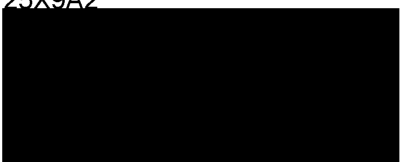
<u>Year</u>	<u>Funds</u>	<u>Manpower</u>
	25X9A2	
FY 68		
69		
70		
71		
72		

B. Other Information Processing

1. Exploitation of Foreign Publications

(a) Augmented plans for FY 67 and related arguments are applicable also to the 1968-72 projection and were presented in the Statement on Unbudgeted FY 67 Items. In addition to our regular requirements for exploitation and translation from documents aimed at the rapidly growing published literature world, there is growing need for interpreting (political/economic/technical), for monitoring (audio-surveillance end products) and composition (writing of letters, propaganda leaflets and tracts) in major languages at an increasing level of competence. There is also part-time need for certain exotic languages. We plan also to continue to stimulate automatic language processing applications and research and development in coordination with OCS, ORD and the CODIB community.

(b) Manpower and funds required over the reporting period are estimated as follows:

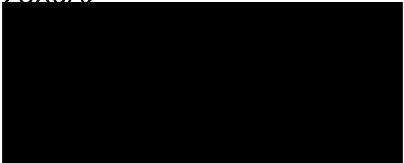
<u>Year</u>	<u>Funds</u>	<u>Manpower</u>
	25X9A2	
FY 68		
69		
70		
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72		

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2. Dissemination Services

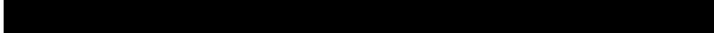
(a) No major changes are proposed. There is a limited personnel increase of eight people over the five-year period to handle an estimated growth of 6% per year in document receipts. We will explore the possibilities of automatic dissemination but do not, at this point, see any basis for projecting any T/O reductions.

(b) Manpower and funds required over the reporting period are estimated as follows:

<u>Year</u>	<u>Funds</u>	<u>Manpower</u>
	25X9A2	
FY 68		
69		
70		
71		
72		

3. Information Retrieval

(a) The most significant change, of course, is the complete phase-over of about one-half of the Office during the first three years of this reporting period, into the CHIVE geographic configuration. The CHIVE design and rationale have been exhaustively treated in previously issued documents, particularly the seven-volume Phase II Report: CHIVE/R-3/65. Full conversion is anticipated in 1970 and will include all people presently in the Biographic



the Document and Machine Divisions (less dissemination), the Document Section of the Library Circulation Branch, and part of the Development Staff now totally subsumed under CHIVE. The personnel growth pattern, reflecting both minimal response to steady receipt/request patterns and the more severe response to biographic and graphics support needs described in the Statement on Unbudgeted FY 67 Items is from 551 positions in FY 68 to 703 positions in 1972.

25X1X2

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- (b) Key points made in previous CHIVE documentation, but worth repeating, are that we will be (1) including more material in the system than is now included in the several OCR systems; (2) indexing material in greater depth than is now the case, thereby providing for more fact retrieval, as distinct from only document citations; (3) providing for cross-source comparisons (including map and photo source materials and all classification levels); (4) providing for greater speed and higher probability of relevance in retrieval; (5) reorganizing on a geographic division base with a topical (political/economic/military/S&T) second level organization; and (6) establishing an integrated personnel configuration, using an integrated index to integrated files. The main point is that we will be doing more with more, but people are still the doers - and the main working level professional, the Intelligence Analyst, will have to be something of a super-man. We cannot make a 1:1 conversion from today's T/O or with today's people as they are. Much training will be required; T/O increases are necessary for physical handling reasons (even given good selection, indexing level, and purge criteria); wage and classification levels higher than those at present will undoubtedly be required to hold people, and recruiting standards must change.
- (c) As previously noted, much time will go to and, perhaps, much gain will come from, CODIB Community, COSATI, MIT/INTREX and other cooperative, developmental activities. Our greatest asset is our in-house, line-experienced talent, generally without experienced competitors elsewhere in the Community; our guess is that of all the large-scale system development efforts well under way, CHIVE has the best chance of succeeding. It would be something of a model for the Community; it is indeed charged to be so by the former DCI, as recorded in Mr. Kirkpatrick's Action Memorandum A-375 of 28 April 1964. But its success depends entirely upon management support and recognition of the information processing role as the bridge between collection and production and vital to both.

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(d) One point yet to be noted, since it doesn't fit the Program Call's ADP category box, is that we are moving from the 16mm aperture card, which has been associated uniquely with the OCR microstorage system for many years, to the 35mm world. We are proceeding in stages, beginning with an off-line, non-automatic system, but aiming in 1969 for a next generation Walnut-like system (such as IBM's Cypress) which will be directly tied to the computer. The FY 1969 figure contains [REDACTED] for Cypress.

25X9A2

(e) Manpower and funds required over the reporting period are estimated as follows:

<u>Year</u>	<u>Funds</u>	<u>Manpower</u>
	25X9A2	
FY 68	[REDACTED]	[REDACTED]
69	[REDACTED]	[REDACTED]
70	[REDACTED]	[REDACTED]
71	[REDACTED]	[REDACTED]
72	[REDACTED]	[REDACTED]

C. ADP Systems

1. ADP developments during this reporting period will represent a modular growth from the IBM 360/30 model to the 360/50, as noted in the ADP section of the Statement on Unbudgeted FY 67 Items. We would not consider this a program change, given the original move from a punch card to an EDP base. Further improvements in ADP Systems will be sought in coordination with ORD, the other Agency ADP facilities, and CODIB. A progressive reduction in personnel is projected for this period (from 80 to 52) in anticipation of the greater efficiency of the proposed EDP system.

2. Manpower and funds required over the reporting period are estimated as follows:

<u>Year</u>	<u>Funds</u>	<u>Manpower</u>
	25X9A2	
68	[REDACTED]	[REDACTED]
69	[REDACTED]	[REDACTED]
70	[REDACTED]	[REDACTED]
71	[REDACTED]	[REDACTED]
72	[REDACTED]	[REDACTED]

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Approved For Release 1999/09/24 : CIA-RDP84-00951R000200020001-9

MEMORANDUM FOR: John,

This is the Program Cell I mentioned and would like to suggest as an Appendix to our history. Please return it, - only copy, etc.

alex = Returned w/ thanks. It does give a fairly clear picture of our work in 1766.

25 May 1970
(DATE)

FORM NO. 101 REPLACES FORM 10-101
1 AUG 54 WHICH MAY BE USED.