USIB-D-39.3/9
27 December 1965

UNITED STATES INTELLIGENCE BOARD

MEMORANDUM FOR THE UNITED STATES INTELLIGENCE BOARD

SUBJECT: Seventh Annual Report of the Committee on Documentation (CODIB)

1. The enclosed Seventh Annual Report of the Committee on Documentation (CODIB) and its attached Appendices are forwarded herewith for information of Intelligence Board members.

2. It is not now planned to schedule this report on the USIB agenda for discussion unless specifically requested by a Board member to do so prior to close of business 6 January 1966. In the absence of such a request, it will be considered for record purposes that USIB "noted" the subject report on that date.

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[redacted]
Executive Secretary

Attachment

GROUP 1
Excluded from automatic downgrading and declassification

Denied in Full by ONI

SECRET

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Appendix C, Section I
Lacking

CODIB-AR-7
22 December 1965
Final: CODIB Approved

UNITED STATES INTELLIGENCE BOARD

COMMITTEE ON DOCUMENTATION

Seventh Annual Report

Authorization

The USIB Committee on Documentation (CODIB) operates under DCID 1/4 (New Series) dated 23 April 1965.

Scope

This report covers CODIB activities during Fiscal Year 1965, with an attached checklist (Appendix A) of documents issued; membership during the reporting period is reflected in Appendix B. New developments in information processing in individual member agencies are reflected in Appendix C.

Activities

The main concern during the reporting period was the progress of nine task teams, established after USIB review of the report of the Staff for the Community Information Processing Study (SCIPS); team activities have been reported to USIB quarterly (the latest report distributed as USIB-D-39.7/12, 18 November 1965). The teams held 114 meetings and expended about 20,000 professional man-hours -

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or about 10 1/2 man years, including the four professionals on full-time assignment on the CODIB Support Staff. A total of 245 substantive team papers and about 100 additional working papers were generated. Formal CODIB review of the task teams' progress and consideration of other matters of interest resulted in eight meetings and the issuance of 41 staff papers, of which 35 dealt with the team activities.

The Committee's other extant bodies include the Subcommittee on Classification (SCC), a Working Group on Emergency Planning (WGEP) and a Working Group on Remote Systems Input (WGRSI). The SCC did not meet as a body, but individual members met to work up a revision to the Intelligence Subject Code and to discuss a proposal that the DoD area code be adopted as a Community standard (see page 6 below). The WGEP began a revision of its basic document on dispersal of finished intelligence collections. The WGRSI held three formal meetings to review the status of the development of the secure, machine-language by-product typewriter; indicators of difficulty noted during the year multiplied until, after the close of this reporting period, some fairly severe problems had developed. Appropriate corrective steps or alternatives are now being studied.

Membership

Several changes occurred during the reporting period: Lt. Col. F. R. Case was designated Army representative vice Lt. Col. William W. Higgins; Cdr. Alfred R. Olsen, Jr. was named for Navy vice Capt. Donald F. Seaman; Lt. Col.

(subsequently, Col.) Byron L. Schatzley succeeded Col. Kevork Ghourdjian as Air Force member; Messrs. A. Sidney Buford, III and Curtis L. Fritz succeeded Messrs. Edward C. Wilson and Benjamin H. Fisher as State member and alternate, respectively; and Mr. Earl W. McCoy was named FBI alternate vice Mr. Norman F. Stultz. There was no participation in CODIB this year by the AEC.

CODIB Support Staff 25X1

The previous report noted preliminary planning for a permanent Secretariat; such was established and includes Messrs. [redacted] (Chief) and [redacted] 25X1 25X1 of DIA, both former SCIPS team members, and Messrs. [redacted] 25X1 and [redacted] of CIA. During the year they concentrated on the task team activities, participating in each as executive secretary, as well as member, providing much of the research and system development effort.

Issues

The Task Team and CSS Approach

As noted in Activities above, the manpower expenditure for the nine ad hoc task teams during the past year exceeded 10 man years. A considerable part of the year went to developing the terms of reference for each team and getting team members briefed on existing Community practices. Team reports are either not yet in, or have so recently been received that CODIB/USIB action on them is not complete. When they are all in, it would be appropriate to consider the relative merits of

continuing in the present task team manner; of expanding the Staff to substitute for task team fact-gathering and reporting-drafting; of assigning executive agency responsibility for solution of a given problem; or of some deliberate combination of these three possibilities.

The present task team activity stems from USIB action on the SCIPS report; it reflects increased awareness of the need for greater management control in the intelligence data handling (IDH) field and some feel for the probable gain from common problem definitions and selected compatibility and standardization steps. It also reflects accommodation to the real world in which manpower resources remain scarce. Major problem areas today, as in past years, include compatibility, standardization, remote communication links, biographic information exchange, and the proper use of automatic data processing equipment. CODIB's early catalytic efforts were hampered by (a) lack of recognition of and support to information processing as an integral part of the intelligence cycle requiring Community management attention; (b) competition between Community efforts and developing Departmental systems for scarce in-house manpower; and (c) the usual difficulties in attempting change via committee.

Relationships Outside of the Community

Awareness of the "information explosion" problem and of the need for informed management policies concerning ADP equipment is by no means confined to the

Intelligence Community. Much is being said about it in the commercial literature, in Congressional committees, in the Bureau of the Budget, in the scientific and technical (governmental and academic) community and, most recently, in the President's Foreign Intelligence Advisory Board. New computer developments, including larger memories and multi-processing capabilities, have led to greater emphasis on centralization of computer equipment; also the rise in numbers of computers in the Government as a whole has led the BoB and the DoD to increase the pace of ADP standardization.

Bureau of the Budget

There has not been much communication between the BoB and CODIB in the past and current CODIB-related BoB activities are arising outside of the International Division which reviews USIB members' budgets; liaison with and responses to the BoB, and others, will undoubtedly occupy much CODIB attention during FY 1966. For example, BoB, with positive intent and with an eye to economy in ADP, is actively leading Government agencies toward data element standardization, without necessarily being aware of the impact of their efforts, particularly on existing large-scale automated or semi-automated intelligence systems. A case in point is the geopolitical area code working group established by the BoB during this reporting period to facilitate exchange of information among agencies and to overcome their alleged tendency to think only in terms of departmental interests.

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[redacted]f the CODIB Support Staff and Mr. Fritz of State (former Director, SCIPS) sit with this group; because of their experience in intelligence data handling and efforts at developing Community codes, they were able to influence the direction of the Group, whose original intent was to settle on a code for standardized computer processing, before they had considered whether they had common agreement on the items to be coded -- there is not, yet, agreement among U.S. Government agencies on the names or geopolitical affiliations of all of the world's countries, islands, bodies of water, and the like.

Non-USIB Components of DoD

The Department of Defense has a larger investment in ADP equipment than any other single department; it has been actively promoting the development of standards for ease of information transfer and maximum equipment utilization within the Department, and externally through such non-intelligence organizations as the American Standards Association and COSATI (see below). DoD intelligence components represent only a part of the overall Defense ADP-interest area, but they are integral parts of the USIB Community, and DoD data element or equipment standardization efforts have implications for USIB information network planning. Better communication is required between CODIB and non-USIB components of USIB-member agencies, particularly if their ADP standards are apt to carry-over

into the intelligence components. CODIB will consider undertaking the identification of those elements on which standardization can be undertaken and to identify that which is unique to the intelligence community.

COSATI

The Committee on Scientific and Technical Information (COSATI) of the Federal Council on Science and Technology, in support of White House S&T policy, is establishing certain standards for Government agencies in information handling and information exchange. These impact directly on DoD, NASA, AEC and others - and can, probably will, impact on the intelligence community. Their most ambitious effort concerns a national information system, with network connections across the country. CODIB is not represented directly on COSATI, but does have indirect links via the alternate State member, a CIA observer, and our National Science Foundation/National Bureau of Standards associate members. Identification is required of those areas of information handling (whether R&D, data element standardizing, open literature exploitation, or others) which are common between the USIB and non-USIB, or non-governmental, communities.

Premature Standardization within USIB

Concentration, too early, on standardization among the USIB-member departments and agencies will be counterproductive; identification of the basic problems for development now of compatibility steps in system design will be

most beneficial. Given the present state-of-the-art plus existing and modifiable R&D efforts, we believe that a three-phase approach is required: (1) attention (and management support) to improving the individual systems in each USIB agency, with projected compatibility monitored by CODIB and the PFIAB/OST Joint Guidance and Evaluation Panel /on information handling/ through briefings, demonstrations and discussion; (2) improved communication between systems within an agency and like systems between agencies; and (3) development of a Community-wide information network. Certain compressions or accelerations can occur, and some have already occurred (e.g., the Long Distance Xerography /LDX/ network and certain format, coding or descriptive standards now agreed to).

System Design and Line Operation Planning

It is probably true that managers of the existing large-scale systems in operation in the intelligence community today are as good as any to be found elsewhere, and the problems of living in a big line production environment, while keeping alert to state-of-the-art or procedural improvements, are significant enough in themselves without adding larger problems such as community networks. A proper blend of line operations, R&D and planning is essential, and the proper allocation of resources (manpower and money) to the line operations to allow experienced people to move into design without leaving gaps which destroy the heart of the operations is perhaps the key to successful community planning.

Expansion of CODIB's Field of Vision

CODIB, and information processing, is increasingly concerned with others' activities and is not confinable within easily identified boundaries. Format considerations for input to computer files or microstorage leads to direct interest in COMOR and SIGINT Committee collection-techniques planning, in addition to the traditional interest in human source reporting. All-source design efforts, and, particularly, all-source files and indexing procedures, have major security considerations which should require USIB Security Committee and COMOR/SIGINT Committee discussion. The CODIB Task Team on Research & Development has stimulated concern from the R&D complexes within DIA, NSA and CIA. The scientific interests of COSATI, particularly as it includes DoD and State membership, affects system design within the USIB Community. In line with a new look at management and coordination of the developing information systems, it is necessary that the linking role of information processing between collection and production be acknowledged and introduced at the earliest planning stages, whether in R&D, collection management or production.

CODIB Fiscal Year 1966 Program

Without doubt, CODIB will devote most of its attention during FY 66 to the task team reports and the management and procedural implications of their recommendations. In addition, considerable effort will be devoted to implementation

of the PFIAB recommendations approved by the President and assigned to CODIB for action after the close of this reporting period. Finally, questions concerning the proper interface of the central reference functions and the ADP processing activities, including liaison with non-USIB committees and the BoB, will require increased attention. It promises to be a busy year.

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Chairman

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Appendix B
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UNITED STATES INTELLIGENCE BOARD

COMMITTEE ON DOCUMENTATION

Membership (FY 1965)

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[redacted]

Members:

Mr. A. Sidney Buford III, State
[redacted] 25X1
Dr. Ruth M. Davis, Defense
Lt. Col. F. R. Case, Army
Cdr. Alfred R. Olsen, Jr., Navy
Col. Byron L. Schatzley, Air Force
[redacted] 25X1
Mr. William O. Cregar, FBI
Mr. George B. Pleat, AEC

Technical Consultant: Dr. Samuel N. Alexander, National Bureau of Standards

Associate Member: Dr. Burton N. Adkinson, National Science Foundation

Executive Secretary: [redacted] 25X1

Member Alternates:

Mr. Curtis L. Fritz, State
[redacted] 25X1
Lt. Col. Thomas H. Scott, Air Force
[redacted] 25X1
Mr. Earl W. McCoy, FBI
Mr. Richard See, NSF

Chief, CODIB Support Staff: [redacted] 25X1

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Appendix C
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UNITED STATES INTELLIGENCE BOARD

COMMITTEE ON DOCUMENTATION

Information Processing Developments in USIB Member Agencies
(Supplement to CODIB Annual Report No. 7)

Attached, as listed below, are the reports from contributing USIB-member agencies reflecting their intelligence information processing program developments during Fiscal Year 1965:

Section	Department or Agency
1	Central Intelligence Agency
2	Defense Intelligence Agency
3	Department of the Army
4	Department of the Navy
5	Department of the Air Force
6	Department of State

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Appendix C
Section 2
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DEFENSE INTELLIGENCE AGENCY

1. The world-wide DoD Intelligence Data Handling System (IDHS) now includes 35 computers used solely, or in major part, for intelligence processing. This figure excludes computers employed in the cryptologic community or used on shipboard and in tactical units.

2. Some kind of ADP equipment, computers or punched card, is now used for the processing of intelligence in every Unified and Specified Command, in many Component Commands, and in many DoD intelligence organizations. In a number of organizations, there are also automated document storage and retrieval systems.

3. Over 1300 in-house military and civilian personnel are directly involved in operating and maintaining the world-wide IDH System. This figure is expected to rise to over 1600 by FY-68.

4. Significant progress was achieved during the past year toward linking the widespread DoD intelligence ADP facilities into an interlocking system. Management plans for IDHS operations have been written in coordination with the three Military Departments. Centralized management and technical assistance by DIA has resulted in the development of "families" of computer programs and data bases, resulting in considerable savings of funds, personnel, and time. Data compatibility is being achieved so that all organizations can exchange intelligence in machine-readable form.

5. During FY-65, DIA continued its efforts to improve the computer programs available to Military Commands and intelligence organizations. In last year's Annual Report, it was indicated that a standard family of computer programs, called the Formatted File System, was being developed for all organizations equipped with IBM-1410 computers. In cooperation with the Navy, the capabilities of this system, which was an outgrowth of the one originally developed at the Fleet Intelligence Center, Europe (FICEUR), have been increased substantially during the past year and a User's Group has been established to coordinate changes and improvements desired by participating commands.

6. The Binary-Coded Decimal (BCD) Automated Intelligence File (AIF) Command Package System was implemented in FY-65, and is making a major contribution to the processing of installations intelligence. This system provides for dissemination to the major commands of the complete AIF data base and, if appropriate, associated IBM-1410 standard programs. It provides the user with the capability to receive, maintain, and extract installations intelligence data in a format adaptable for subsequent processing in support of his requirements. BCD-AIF users, in addition to making use of the data file, also propose additions and changes to the file content. Thus, intelligence staffs throughout DoD are contributing to the maintenance of a single master data base.

7. To the AIF is being added a DoD-wide system for storing, retrieving, and manipulating intelligence information on 30,000 foreign coastal areas and landing beaches. This system will permit participating organizations to maintain the enormous volume of data on foreign coasts and landing beaches in a more usable form than the present hard copy publications. It will also greatly facilitate the updating of such data.

8. In the field of document storage and retrieval, a great deal of progress has been made in implementing the plan for a world-wide DoD system which was formulated during FY-64. Agreement has been reached with participating commands to standardize on FMA File Search document storage and retrieval equipment. Nine sets of such equipment were installed in various commands during FY - 65, with six additional sets scheduled for FY-66. DIA has assumed the responsibility for indexing intelligence reports of common interest, reproducing these reports and indexes on microfilm reels, and disseminating the reels to interested commands. The participating commands will thus be able to maintain extensive libraries of intelligence documents at a fraction of the personnel cost which which would be involved if each attempted to maintain an independent system.

9. The DIA ADPS Center has coordinated technical ADP developments in a number of areas, to the mutual benefit of all concerned. One such effort deserves special mention. This concerns the development of automated plotters for such purposes as annotated maps. Some commands have already installed various types of plotters. During FY-65, DIA determined that over $1 million of additional plotters were planned for installation in the next three years. Investigation revealed, however, that the results achieved with plotters to date have been disappointing. The card-

driven plotters have been slow and the preparation of input has been costly. Many plotters have been unreliable, with excessive maintenance and down-times. Printing on standard charts has been generally unacceptable because of lack of contrast with the material already depicted on the map. In view of these and other considerations, DIA requested the Navy, in collaboration with Rome Air Development Center, to develop specifications for an improved plotter. Such specifications have been developed and a plan is being formulated for the development, test, and evaluation of a complete hardware-software system for a plotter. The test is being conducted at the Atlantic Intelligence Center.

10. In the field of dissemination, DIA has developed an ADP system which is accelerating the dissemination of intelligence reports to interested recipients. A Statement of Intelligence Interest has been received from each of the more than 200 DoD organizations which the DIA Dissemination Center serves. These statements have been coded and converted to machineable form. Each intelligence report is coded by subject and area as it is received in the Center and a punched card is prepared. The Statements of Intelligence Interest are then correlated with the intelligence reports received each day and the DIA ADPS Center automatically: (a) prepares a distribution list for each intelligence report; (b) calculates the number of copies of each report which will be required for reproduction; and (c) produces special punched cards which are used to produce document receipts. The system provides a reliability in dissemination which was unobtainable in the former manual screening system.

11. Automation support for activities in Southeast Asia has been a priority task during the past year. A system has been developed to provide a storage and retrieval capability on military actions in South Vietnam. The data are developed at CONUSMACV and forwarded through CINCPAC to DIA. Both DIA and CINCPAC make use of the system to provide statistical information and trend analyses on the actions. In another area, a small-scale computer has been installed at the 67th Reconnaissance Technical Squadron in Japan to support photo interpreters. The equipment has nearly tripled the productivity of the photo interpreters at this location. Some data processing support has also been provided to J-2 COMUSMACV, and action is underway to assist the 13th Air Force and the 2nd Air Divisions.

12. In June 1965, the Secretary of Defense approved the installation of an experimental, multi-console, on-line, time-sharing, data processing system in DIA.

Work on this experimental system will begin in FY-66. The purpose of the system will be to test the adaptability and application of on-line equipment and techniques to intelligence data processing. On the basis of conclusions drawn from the experimental system, decisions can be made concerning the usefulness of similar installations in other commands and agencies which have requested them. Equipment configuration will be similar to that pioneered for several years in MIT's Project MAC (multi-access computer).

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DEPARTMENT OF THE ARMY

1. Procedures designed to accelerate the development of Intelligence Data Handling Systems (IDHS) were recently established in a joint Defense Intelligence Agency-Army Plan for Management of IDHS. Encompassed in the Plan is a delineation of Department of the Army (DA) and Defense Intelligence Agency (DIA) managerial responsibilities relating to IDHS requirements, initiation and implementation, resources, and projects and contracts. It is envisaged that maximum systems integration and standardization within the Department of Defense IDHS will be achieved through the Plan and procedures established which will facilitate military command and intelligence agency acquisition of IDHS.

2. Activities during FY-65 resulted in establishment of an operational IDHS at the Headquarters of the United States European Command (USEUCOM), Camp des Loges, France, for which Army has support responsibility. The system will consolidate and correlate all intelligence data pertinent to areas of interest and responsibility of the United States Commander in Chief, Europe (USCINCEUR), and of the Supreme Allied Commander, Europe (SACEUR), and is designed to accept input, store and retrieve evaluated intelligence material from DIA; U. S. Army, Europe (USAREUR); U.S. Navy in Europe (USNAVEUR); U. S. Air Force in Europe (USAFE); USEUCOM (J-2); the Joint Strategic Target Planning Staff (JSTPS); and other related intelligence organizations. The shielded computer configuration consists of an IBM-1410 with a 100k memory, a 1301 disk storage file, and supporting punch card equipment. The contract for software development is with Planning Research Corporation, Los Angeles, California.

3. Projects have been initiated in several Army commands to establish an automated capability in support of intelligence requirements. A Systems Application Study has been produced by Headquarters, USAREUR, and submitted to DIA for validation with the concurrence of USEUCOM and the Department of the Army. Resource requirements for this effort have been approved in the Consolidated Intelligence Program (C.I.P.). The U. S. Army, Pacific (USARPAC),

has initiated action to acquire an IDHS, and steps are being taken to automate the United States Continental Army Command Tactical Intelligence Center (CONTIC). Resource requirements for FY-67 have been approved in the C.I.P. for development of a system for the Foreign Science and Technology Center as well as for FMA document storage and retrieval equipment for USAREUR and USARPAC.

4. Automated intelligence support is currently being provided through extensive punch card systems in the Counterintelligence Records Facility, Fort Holabird, Md., and at Headquarters, USAREUR. A small biographic system oriented toward Latin American military personalities exists at U.S. Army South (USARSO) and an IBM-1620 meets missile-oriented computing requirements of the U.S. Army Directorate of Missile Intelligence at Huntsville, Ala. An IBM-7094 has been approved to support the computer system used by the Army Map Service for reduction of data, and resources have been projected for continued operation of the document storage and retrieval equipment used by the 902d Intelligence Corps Group.

5. The Army's "Automatic Data Systems Within the Army in the Field (ADSAF)" program was approved by the Army Chief of Staff on 11 May 1965 and subsequently funded, in part, by Director of Defense Research and Engineering (DDRE). ADSAF basically consists of three systems -- the Tacfire System (Artillery Fire Control); Combat Service Support System (Logistics, and Personnel and Administration); and the Tactical Operations System (TOS). This last system, the TOS, provides for shared machine operation by intelligence, operations, and fire support coordination personnel in a mobile tactical situation and is the one system most fully supported by DDRE.

6. The intelligence element of TOS is a random access storage and retrieval processing system designed to receive, store, collate, correlate, summarize, display, and disseminate intelligence and intelligence information. It will be included in the computer centers supporting division, corps, and field army Tactical Operations Centers (TOC) and will have on-line input/output devices at all subordinate and intermediate headquarters processing intelligence functions

or staffs. A computer-driven group display facility will be located at each TOC. The intelligence element for use at division level is largely complete in analysis, design, and programming, and will be evaluated on test bed equipment during the next eight months. The TOS, in its entirety, is programmed for issue in FY-72.

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Appendix C
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DEPARTMENT OF STATE

1. The Department of State completed, in July, the First Stage of a long-range programmed effort to develop an information management system which would improve its decision-making capability and the management and use of the tremendous volume of communicated information documents processed daily in the Department and the Foreign Service.

2. The Department has made over 100 studies over the past ten years looking toward improvement of its information-handling capability. These, however, have been piecemeal and fragmented. This new effort is the first project having an overall systems design and development objective and recognizing that this step is a necessary prelude to determining the feasibility of individual automation applications within the total system.

3. The project has been called the "Foreign Affairs Information Management Effort (FAIME)". Its First Stage, conceived under the leadership of the Department with the active participation of the Bureau of the Budget, was a joint endeavor with sister members of the Foreign Affairs Community - AID, USIA and ACDA. An outside firm of operations analysts was employed and each of the participating agencies contributed in-house staff, funds and facilities. Financial support was also provided from the President's Management Improvement Fund indicating the interest of the Executive Office of the President in a problem referred to by Secretary Rusk in these words:

> "We seek continually to work on the question of how to get information to those responsible for making the decisions in time to be of use to them."

4. The need, at least in the early stages, for inter-agency community coordination reflected an appreciation of how extensively information reports by the Foreign Service and other sources was shared and common to the needs of all four agencies, as well as the great volume of information which is of relatively unique interest to each agency. Thus, eventual modernized intra-agency information management systems will be required also within an integrated, total Foreign Affairs "system of systems".

5. The primary results of the First Stage study were:

a. A new appreciation within the Department and other Foreign Affairs Community agencies of the magnitude of the problem of managing operational information, and the vital necessity of starting system modernization now.

b. A current evaluation of present information-handling practices is now available.

c. A broad, conceptual design of a future total system of sub-systems, and a gross methodology for its incremental development.

d. Recognition that in many information areas participation by many other government agencies (e.g., CIA, DIA, Commerce, Labor, etc.) in information system development must be anticipated.

e. Identification of some interim improvements which could be instituted prior to implementation of the ultimate system.

6. Perhaps the most significant by-product of the initial inquiry has been a new appreciation that, since the basic task of the Department is managing and using information, there should be an organizational realignment of the principal substantive information management and processing units, possibly at a bureau level. This reflects a recognition that there needs to be an organizational focusing and increased systems staff and other resources, which can combine information systems development and information processing and research with authority and capacity for accelerating the installation of modern information handling systems.

7. The forthcoming Stage II is programmed to add substance and detail to the conceptualized system design, and to tackle the most difficult problems of integrating paper-handling operations and developing more precise definition of information requirements and dissemination profiles.

8. Stage III would span several years and involve the installation, increment by increment, of system components and sub-systems.