S-E-C-R-E-T

CODIB-D-108
30 July 1963

25X1

UNITED STATES INTELLIGENCE BOARD

COMMITTEE ON DOCUMENTATION

Annual Report

1. Attached is a draft of the Fifth Annual Report to the USIB. I would like to have this basic report go forward as soon as possible. The departmental contributions submitted as appendices will be packaged and given supplemental distribution after all are received.

2. Would you then review the attached and telephone your concurrence or comments to me by 15 August 1963.

John K. Vance
Acting Chairman

Attachment

S-E-C-R-E-T

GROUP I
Excluded from automatic
downgrading and
declassification

S-E-C-R-E-T

USIB-D-39.3/7

CODIB-AR-5
29 July 1963

UNITED STATES INTELLIGENCE BOARD

D
R
A
F
T

COMMITTEE ON DOCUMENTATION

Fifth Annual Report

Authorization

The USIB Committee on Documentation (CODIB) operates under DCID 1/4 (New Series) dated 26 June 1959.

Scope

This report covers CODIB activities during Fiscal Year 1963, reflecting activities and problems of general interest or concern, with an attached check-list (Appendix A) of documents issued during the year; current membership is reflected in Appendix B. Information processing developments in individual member agencies, particularly those involving automatic data processing equipment, are reflected in Appendix C, distributed separately as a supplement to the main report. This supplement has been particularly well received by various USIB components in previous years as a vehicle for the dissemination of collated information on current indexing, storage

GROUP I
Excluded from automatic
S-E-C-R-E-T   downgrading and
declassification

and retrieval techniques, equipment utilization and other related developments in
the Community as a whole, an over-view otherwise difficult to obtain.

Activities

As announced in the Outlook section of last year's Annual Report, CODIB's
FY 63 program was principally that of the Staff for the Community Information
Processing Study (SCIPS). To review the status of SCIPS developments, and
to handle the various ad hoc problems of general interest, six Committee meet-
ings were held and 27 staff papers issued. In a unique expansion of CODIB on-
site visits to facilities engaged in significant information processing activities,
many of the members attended the Congress in Munich of the International
Federation of Information Processing Socities (IFIPS) and visited USAREUR
and USAFE installations in Stuttgart, Heidleberg and Wiesbaden; the
Director/SCIPS and the CODIB Secretary, also visited EUCOM headquarters
in Paris. Ten other briefings or demonstrations were held, including visits
to the (then) Armed Services Technical Intelligence Agency (ASTIA), the State
Department, concerning their automation plans, and General Electric/Bethesda
for a machine-oriented indications analysis technique session; oral presentations
were given by representatives from DIA, DDR&E, NASA, State/External
Research, and Jonkers Business Machines, Inc; equipment demonstrations
included CIA/WALNUT's document machines and an Air Force/IBM machine

translation demonstration, with communication link via telephone between CIA's
Library and IBM facilities in New York State.

The Subcommittee on Classification approved Amendment II to the Intelligence
Subject Code (ISC), providing greater indexing specificity on certain subjects of
interest to DIA and to CIA; the Working Group on Emergency Planning reviewed
the individual deposit programs of CODIB member agencies and the Chairman
visited various deposit sites in the U.S. mainland and in Hawaii; and the remain-
ing CODIB sub-group, the Working Group on Remote Systems Input, having
completed its work in development of Community specifications for a secure
machine-language by-product typewriter, attempted catalytic and/or irritant
efforts to effect the release of funds to allow developmental work to get under-
way - of which more below on page 8.

Membership

Many changes in representation occured during the year, resulting in
large measure from DIA assumption of various Service intelligence
activities: Mr. Edward C. Wilson was designated State representative
vice Mr. Donald B. McCue; Capt. Donald F. Seaman, USN as Navy repre-
sentative vice LCDR William C. Patterson, Jr.; Lt. Col. L.K. Patterson,
USA as Army representative vice Lt. Col. T. B. Broaddus, USA vice
Mr. John F. Kullgren; Lt. Col. Kevorak Ghourdjian, USAF as Air Force

representative vice [   ] as DIA   25X1

25X1   representative vice [   ] (For a complete list of members

and alternates see Appendix B).

Study of USIB Information Processing Problems

The SCIPS Stage I effort to accumulate during the year data on information

holdings and handling procedures within the Community, to reduce these data to

machine language for computer manipulation for evaluative purposes, and to draw

conclusions, either for a Stage II follow-on effort or for recommendations to USIB

for policy directives assigning specific responsibilities in intelligence information

processing, encountered strong cross-currents in its upstream struggle. Personnel

shortages, both in terms of originally requested full-time commitments and

staff cutback during the Cuban crisis, necessitated reduction in the number of

organizations covered during the fact-finding phase, from the originally planned

200 or so, to 61, with only two components outside of the Washington area

(SAC Headquarters, Offutt AFB and Air Force's Foreign Technology Division,

Wright-Patterson AFB) being covered; the 61 surveyed include some 400

processing activities and about 5,000 people (perhaps 60% of the Community's

information processing efforts), and maintain about 1,000 files of which perhaps

one-third are at least partially automated. The fact-gathering procedures

developed, including the very detailed questionnaires, * were difficult to

learn and produced great quantities of data which had to be converted to

machine language (the keypunching and computer programming of which was a

major effort); these complicated procedures engendered controversy, but a

point should be noted: the need for a comprehensive study and for USIB directives

in the information processing field was stated in the CODIB Annual Report for

1960, and the difficulties in such an effort - said then to be one of the most

ambitious studies implemented in the Community -- were pointed out in the

1961 Annual Report. What was, and is, sought is not a band-aid solution to

various present problems, but, for the first time, a comprehensive view of who-

has-what-where, and how the Community can most efficiently use these

expensively collected and voluminous data in a planned_ integrated Community

system -- one involving hardware compatibility, common formatting, indexing

and other procedural steps, and shared responsibility. To attempt such requires

time and detailed collection and analysis of information. Intensive data gathering

occurred from August 1962 to January 1963, with subsequent tapering off of data

collection and emphasis on data reduction. The information gathered exists in

the form of questionnaires and other documents; punched cards and EAM listings;

magnetic tape files; and 30 (potentially, 83) catalog printouts, reflecting data

---

*It is noteworthy that IBM, with its considerable experience, in attempting to
develop information for market research purposes for a presently Company
Confidential commercial version of CIA's WALNUT System (referred to as
CYPRESS), felt that traditional market research methods were inadequate to the
size and complexity of the task, and decided on the same approach of a very detailed
and structured questionnaire as did SCIPS.

contained in over 250,000 SCIPS punched cards. This Collateral/SIGINT data base, plus other sensitive codeword data manually controlled, should be used for the benefit of all Community components, but policy on access to it needs to be (and is now being) developed.

In an all-day session immediately following the end of this reporting period, CODIB members were briefed on SCIPS findings to date. Detailed evaluation of the data collected is now in process, with a report to USIB planned for late September 1963.

Information Release

As in previous years, questions and problems concerning releases and use of intelligence and intelligence information occupied considerable Committee attention, particularly in implementing DCID 1/7, and more specifically, with regard to releases to contractors. A CODIB-prepared revision of the USIB policy paper on contractor releases (USIB-D-39.5/2) met with unanticipated opposition at the Board level and was not resolved until after the end of the reporting period. If the Community is to continue its reliance on external research on intelligence problems, particularly in a tightened budgetary and T/O environment, more efficient release procedures with fewer middleman-handling requirements without security relaxation, would seem to be in order; also relevant, of course, is the quality of the externally-produced report if the most current information is withheld from the contractor. In this connection, the points made in the

1960 Annual Report, we feel, remain valid: viz, we must face up to the need for releasing more information, adopting procedures to make this possible, or, modify the Community's research facilities to enable research work now contracted out to be accomplished in-house.

Keeping Informed

Keeping up with state-of-the-art developments as well as changing organizational or procedural details is a major problem to, and, as reflected in the Activities section above, a major effort of, the Committee. The volume of information about information processing itself is becoming unmanageable. Again, the points reflected in the Outlook section of the 1961 Annual Report, for Community action to control the information flood, are still valid; elsewhere, outside the Intelligence Community, these points are receiving increasing attention, in the Senate Committee on Government Operations hearings and in the excellent report of the President's Science Advisory Committee (PSAC)*, to name just two. CODIB tie-in with the non-USIB and non-governmental communities was expanded beyond that provided by our advisory and associate members from the National Bureau of Standards and National Science Foundation by virtue of the invitation from the Federal Council on Science and Technology's Committee on Scientific Information (COSI) to the CODIB Chairman to attend its meetings as an official observer.

---

*Science, Government and Information: The Responsibility of the Technical Community and the Government in the Transfer of Information, 10 January 1963

It is ironic, and frustrating, to note that the legitimate concern in this area has in some quarters proceeded from non-action to band-wagon proportion reaction with great pressure for someone to do something, particularly with computers, the inference being that this problem area has just been brought to light. Perhaps more frustrating is the fact that, within the Community, historic awareness of the problem areas and recommendations as to solutions or steps toward solutions, have not been translated into action - or have been so translated only painfully and slowly. As example, the machine-language typewriter development referred to in the Activities section above was put, and accepted, as an urgent requirement in March of 1961; nevertheless, by the end of Fiscal Year 1963 and after concerted CODIB urging, including a status report at each meeting, no bids had been let for research and development. Development of a standardized report format for just one type of report, the raw collateral information report, proceeded without much headway for over five years; happily, the new DIA format most closely approaches the long-sought goal but, in truth, this was a unilateral development to meet DIA's own needs and was fortuitously coordinated with CIA. In many other areas: meaningful report titles, common indexing, reporting cycle speedup, all-source developments, machine

language file generation, etc., loquacity has been noticeable - action, i.e.,

planned Community action, conspicuously missing. SIGINT/Collateral informa-

tion interplay is obvious and techniques, particularly machine techniques, for

handling each should be concerned with both as part of the information data base;

this point was somewhat compromised during the year in dealings between CODIB

and the SIGINT Committee. The two committees jointly sponsored USIB-S-13.1/4

(24 May 63) dealing with three ADP matters of particular importance to the SIGINT

Community. These and like matters of mutual interest have led CODIB to

recommend the establishment of a Joint CODIB-SIGINT Committee on ADP.

While the SIGINT Committee did not accept this during the course of discussions

on the above paper, the matter will be reconsidered later.

Outlook

The comments made above reflect our strong conviction that steps can be

taken (a) within the present state-of-the-art to ease some of the current

problems; and (b) both within the present state-of-the-art and by new

equipment R&D, to develop a much more integrated Community system for

the future. These steps, apparently and based on past history, will not be

taken or will not be taken rapidly enough, until senior levels within the various

departments support them. The climate for such support seems better now

than it has been. Our original hope, which we repeat, is that the SCIPS study

will provide objective "meteorological" backup to enable the senior levels to formulate, within today's climate, a projected action plan.

Perspective

Of especial interest to CODIB has been the activity within the Government (but outside the Intelligence Community) to get a more firm grip on the science information problem. The Federal Council on Science and Technology, and its Committee on Scientific Information, and the new DOD Director of Technical Information, are all providing vigorous leadership and purpose to the less purposeful performance of yesterday.

Inasmuch as S&T information and intelligence information have large areas which overlap, moves made to improve matters in the S&T field inevitably have a much wider impact. Fortuitously, much of the philosophy guiding this action has been that espoused by CODIB in the past, and hence is to be welcomed.

In the Congress, Senator Humphrey is again pushing for progress in the handling of information, having been disappointed at improvements made to date. In hearings last fall, he characterized the improvements as insufficient.

"They /the improvements/ are usually too limited and
marginal in effect. The Federal agencies are still so choked

up with innumerable documents - monographs, research papers,

administrative reports, etc. - that nobody knows where they are,

what you are supposed to do with them, how they got there.

o o o o

"One of our purposes . . . is to get the new Federal budget specific

moneys for improved information programs /I.e., a separate line

item in the budget of each major Federal department or agency for

its information-communication activity/."*

As mentioned above, a particularly good study was made by a panel on

science information of The President's Science Advisory Committee.** All

of its findings have relevance to the CODIB mission. In summary these are:

   a. The technical community must recognize that handling of

       technical information is a worthy and integral part of science.

   b. The individual author must accept more responsibility for

       subsequent retrieval of what is published.

   c. Techniques of handling information must be widely taught.

---

* Hearings before the Subcommittee on Reorganization and International
Organizations, 87th Congress, Second Session, September 21, 1962,
Part 1, pp. 2 and 93.

** Science, Government, and Information, supra.

d. The technical community must explore and exploit new switching methods.

(1) The specialized information center is the key to the rationalization of our information system. Ultimately the specialized center will become the accepted retailer of information, switching, interpreting, and otherwise processing information from the large wholesale depositories and archival journals to the individual users.

(2) There is little question of the practicality of the central depository.

(3) Mechanical equipment offers hope for easing the information problem.

(4) Software, including methods of analyzing, indexing, and programming, is at least as necessary as hardware for successful information retrieval.

e. Uniformity and compatibility are desirable. Switching between separate subsystems of the entire information system will be effective only if the different subsystems adopt uniform practices.

A study* prepared under grant by the Council of Library Resources is nearing completion. The survey team (King, Edmundson, Flood, Kochen, Libby, Swanson, Wylly, and Dubester) investigated the possibilities of automating the functions of large libraries. Here are the conclusions:

a. Automation can, within the next decade, augment and
accelerate the services rendered by large research
libraries and have a profound effect upon their respon-
siveness to the needs of users.

b. Automation of certain reference, record, and document
retrieval functions of large libraries is technically and
economically feasible.

c. The retrieval of information from documents by automatic
methods is not technically feasible for large collections,
but must be anticipated.

d. Automation will enhance, not impair, adaptability of
libraries to changes in the national research environment

---

* As a supplement, the Planning Research Corporation prepared A Cost
  Analysis of an Automated System for the Library of Congress, Spiro
  and Kotin, PRC R-267, 1 August 1962

and will facilitate the development of a national library

system.

<u>e</u>. Automation will not reduce operating costs, but will

reduce the cost-to-performance ratio.

During May 26-29, a conference on Libraries and Automation was held

at Arlie Foundation, Warrenton, Virginia, under the sponsorship of CRL,

NSF and the Library of Congress. The papers read at this conference merit

CODIB attention.

Mid-1962 saw the completion of the report of an ad hoc study panel of

PSAC on <u>Non-Numerical Information Processing</u>. These findings reflected

the panel's attempt to assess the state of the art in this field - one most

closely related to processing intelligence information. Two fundamental

difficulties were identified regarding present applications, even though

large scale commitments to the development of operational hardware

systems have been made:

<u>a</u>. A lack of precise definition and specification both of the

objectives to be reached and of the relevant non-numerical

techniques; and,

<u>b</u>. A shortage of first-rate research workers in the field.

S-E-C-R-E-T

- 15 -

To quote the panel, "Symptomatic of these difficulties are the present and growing external pressures toward large scale hardware procurement in cases where the operational purpose to be served is vague and where, in any event, the present state of the art in hardware and software is inadequate to support the grandiose 'intellectual process' that is so ardently desired."

Finally, the Interagency Committee on Automatic Data Processing continues its pursuit in fields of interest to CODIB also.

It would thus appear that CODIB has much to gain by devoting some of its attention during the year ahead to strengthening its ties with organizations actively pursuing goals of mutual concern.

Paul A. Borel
Chairman
USIB Committee on Documentation