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ODP # 8-2295

DD/A Registry
78-4384/5

21 DEC 1978

1-1-78 DDA

MEMORANDUM FOR: Comptroller

THROUGH: Deputy Director for Administration

FROM: [REDACTED]
Assistant for Information, DDA

SUBJECT: Information Handling Study *← file*

REFERENCE: Your multiple addressee memorandum dtd 28 Nov 78,
same subject

25X1A

1. This memorandum is to respond to your request for issues relating to information handling. We feel this Directorate's general management concerns have been expressed in the June paper, Information Management in the CIA. This Directorate, in addition to providing information handling services to the Agency, also requires information handling services to be able to perform its varied missions.

2. We have sent your memorandum to the offices of the Directorate to obtain their views on this subject. The offices directly involved with providing data processing and communications services addressed the issues, and properly so, from an information handling program office point of view. The other offices, all having information to "handle," have provided valuable responses which I believe will help in the problem definition phase of this effort. (As requested, the responses from all the offices are attached to this memorandum.)

3. The following subparagraphs, keyed to paragraph 3 of the referenced memorandum, provide a Directorate point of view.

a. We offer a broad definition of information handling: Information handling is the acquisition, storage, reproduction, processing and transfer of data.

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b. The major problem: The efficient and effective application of the technologies and disciplines required to handle the Agency's information. The records management and information security issues need to be addressed as well as the closely related technologies of communications, data processing and word processing.

c. Programs to be addressed: Programs which include the application of information handling technologies and disciplines for information which will be shared or transferred between components should be addressed in the proposed study. Specific programs are listed in the attached office responses. In addition to these, the Assistant for Information is actively involved with automation in the records management support area: growth of word processors in the Agency, development of automated registries and development of automated records inventory systems.

4. Our efforts in defining information handling issues and attempting to come to grips with them are not unique to the CIA. The Agency is in receipt of a draft OMB circular entitled "Responsibilities for the Acquisition and Management of Federal Information Technology." The thrust of this proposed circular is toward the integrated management and review of technologies which support information handling activities. The features in this draft circular as well as future revisions to this draft should be included in this study as planning to meet external requirements is very much part of an information handling strategy.

5. If we can be of further assistance to this "statement of problem" phase, please call me or [REDACTED]

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Signed
[REDACTED]

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Attachments:
As stated

Distribution:


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OC-M-78-883
13 DEC 1978

MEMORANDUM FOR: Assistant for Information, DDA

FROM : 
Director of Communications

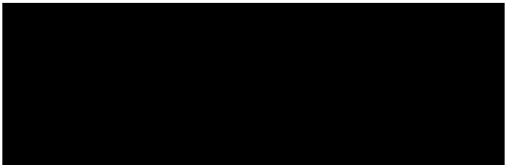
SUBJECT : Information Handling Study (U)

REFERENCE : A. DDA 78-4384/1, dated 28 November 1978
B. DDA 78-4384, dated 21 November 1978

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The Office of Communications' (OC) comments and views on the information handling subjects, identified in Reference B., are attached. OC perceives the information handling issue within the Agency as serious, deserving the attention of senior management, and study by a competent consultant. (C)

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Attachment:
As Stated

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 DERIVED FROM _____ A9c2.1 _____

CONFIDENTIAL

A. Information Handling Definition:

1. The Office of Communications' (OC) perception of the field of information handling is summarized in the following proposed definition of information handling: (U)

"Information handling encompasses all activities, subject to Agency security requirements, required to transform, process, and transfer information from an information source to an information sink." (U)

2. This definition is proposed to include the traditional functions of origination, transformation, indexing, categorizing, dissemination, storage, retrieval, transmittal, and utilization normally associated with information handling. "Information" is considered to be any data that contains knowledge useful to or required by the Agency. The definition of information should not be limited to intelligence collection efforts and should at a minimum include technical and administrative data. It is further suggested that the division between processing and transmission responsibility be considered to be at that point in a process where information must be transmitted to some distant device for the process to continue or be consumed. (U)

3. It is strongly recommended that any definition of information handling adopted by the Agency give full consideration to security requirements. (U)

B. Major Problems:

1. The lack of centralized management control of the Agency's information handling resources and activities allows separate and, at times, uncoordinated planning, programming, design, engineering, maintenance, and support activities by various Agency components. The net result is often duplication of effort and inefficient use of resources. (U)

2. The lack of a comprehensive Agency Information Handling Strategic Plan renders ineffective attempts to develop coordinated, complementary information handling programs. (U)

3. The requirements solicitation process is fragmented and uncoordinated. Customers are not familiar with or cannot comprehend the technical aspects of information handling. Consequently, requirements are poorly stated or underestimated. (U)

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4. The information handling field is experiencing an explosive growth rate. There are no provisions to acquire resources based on requirements perceptions, and new acquisitions are often unable to accommodate the actual work load once they are installed. (U)

5. Charter conflicts between Agency components are presently developing and promise to worsen in the future. Technological advances have eliminated many of the traditional functional boundaries associated with information handling. Computer security and communications security efforts are also becoming inseparable. Consequently, many OC/ODP and OC-CSD/OS-ISSC areas of interest and responsibility are in dispute or have the potential of developing into conflict situations. (U)

6. There are areas of severe imbalance between work load and resources. Customers, occasionally, are forced to accept lengthy delays in service. This imbalance sets the stage for information handling users to initiate their own programs to acquire and implement equipment or systems to satisfy their requirements. This situation has serious managerial and security implications. (U)

7. Information handling systems acquired in the past have traditionally been functionally oriented due to technology limitations. The current physical plant incorporates many different types of equipment and necessitates diverse training and maintenance requirements. Information handling systems of the future should be multiple service oriented to the maximum extent possible in order to increase support efficiencies. (U)

8. Current Agency data base support/utilization, from OC's viewpoint, is characterized by dated information and incorrect, incomplete reports. Such a situation results in inefficiency and justification for a component to acquire its own local system in order to overcome this problem and to realize the advantages of automatic data processing. (U)

Management Issues:

1. The current organization and division of responsibilities among Agency components concerned with information handling is considered inefficient, results in duplication of effort, and fosters the potential of charter conflicts. A major reorganization to eliminate competitive situations and to centralize the planning, programming, development, engineering, and support of information handling activities should be given serious consideration. (U)

2. Acquisition of new information handling equipment and systems should be tightly controlled to ensure compliance with Agency operational, technical, and security guidelines and standards. All new equipment procurement should also be reviewed to ensure compliance with an Information Handling Strategic Plan. (U)

3. Determination of the requirement for compartmentation and need-to-know protection in the electronic environment is a prerequisite to major decisions about the direction of future systems. Policy regarding data integrity and accountability should also be developed. The potential of a major impact on the Agency's information handling systems due to these considerations should not be underestimated. (U)

4. Resource limitations are severe and are perceived to increase. The implementation of an integral information handling/processing system to satisfy virtually all Agency requirements is recommended in order to reduce or eliminate the requirement to operate and maintain functionally different systems (narrative, data, facsimile, data terminal, and secure voice). Technological advances, primarily in electronic components, have fostered integral system design. It is no longer possible to identify the boundary between data processing and telecommunications. The integration of multiple, inter-related functions within information handling hardware will force the Agency to address an integral system implementation. (U)

5. Skill profiles of employees required to design, install, operate, and maintain new information handling systems must reflect modern technological training. An ambitious training program to upgrade the skills of employees in the techniques, operation, and maintenance of modern information handling systems should be seriously considered. Provisions should also be made to enable specialist to advance to upper grade levels without the requirement to assume managerial responsibility. Entry of skilled/specialized middle and upper management officers from industry should also be encouraged in order to introduce new ideas and concepts into Agency information handling management. (U)

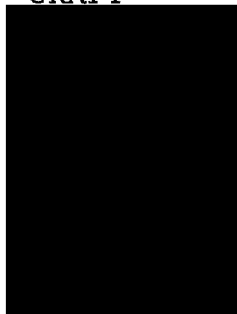
6. Recent and perceived advances in end-to-end encryption techniques, file encryption, and verifiable software (secure operating systems) will enable processing systems to simultaneously execute multilevel classification and compartmentation jobs. The justification to operate separate processor centers based on sources and methods compartmentation is no longer valid. The application of computer and communications security features to Agency computer systems could result in centralization of functions and significant resource savings. (U/AIUO)

7. Implementation of wideband information handling systems and the large amounts of classified data that can be accommodated on these systems increase the attractiveness and potential of a penetration. Consequently, all wideband information handling systems should have their communications systems secured. Technological advances have enabled the cost-effective implementation of security systems to protect large distributed communications/computer networks. Adequate TEMPEST profiles of all Agency information systems will continue to be a requirement. (U/AIUO)

Programs:

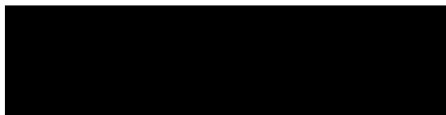
Tabulated, by priority, and without elaboration are those programs that OC feels have a bearing on the Agency's information handling issues: (C)

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Technology subjects/programs having a potential impact on information handling systems include: (C)



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Wideband Communications Technology
Data Encryption Standard (C)

ODP-8-2243

14 DEC 1978

MEMORANDUM FOR: Assistant for Information, DDA

FROM : [REDACTED] Deputy Director ^{of} Data Processing

SUBJECT : Information Handling Study

REFERENCES : a. Your memorandum of 28 November 1978, same subject, (DDA 78-4384/1)
b. Multiple addressee memorandum from James H. Taylor, dtd. 21 November 1978, same subject, (DDA 78-4384)

STATINTL

1. In responding to your inquiry about the information handling study we are, in a sense, receiving our own forward pass, since we collaborated in the preparation of the inquiry. In addition, the DDA response to the Taylor memorandum will be part of the raw material to be used by ODP and the Office of the Comptroller in the preparation of an Agency position on this subject. However, in the interest of completeness in the DDA response, the following input is offered.

2. Taylor's question 3.a. involves the definition of information handling. Two definitions have been suggested by ODP personnel. One of them, which appears in a draft OMB Circular #A-71, is really a definition of information technology, but it is also potentially a definition of information handling. The definition reads: "Information technology is all computer and telecommunications hardware and associated software which is used to store, disseminate, transmit, or otherwise process information and which have a development or acquisition cost in excess of \$10,000. Information technology also includes all resources directly related to the acquisition, development, operation, management or disposal of that technology including but not limited to people, facilities, and supplies." Another possible definition of information handling, which may however prove too comprehensive to be of practical utility, is as follows: "An information handling system can be defined as the total collection of people, procedures, and equipment designed, built, operated, and maintained to record, process, store, communicate, retrieve, and display data that provides people with information to support their decisions and actions."

3. On Taylor's paragraph 3.b., having to do with major problems in handling information, the most serious problem identified by ODP has to do with the gradual and inexorable blurring of the distinctions which once separated ADP functions from communications functions and the further complications created for both of these major disciplines by the arrival on the scene of "smart" multiplexers and word processing technology. Indeed it was a realization of the gradual merger of these technologies which caused ODP and Office of Communications leaders to form a joint planning group and to collaborate with the then Assistant for Information to develop the proposal which in time led to the present request from the Comptroller.

4. At a second level of significance a number of information handling problems can be identified. These include the availability and the allocation of user terminals; the availability of an adequate communications network to support these terminals; the allocation of adequate physical space to house ADP and Communications hardware; the use of Agency resources to develop and support community-wide ADP systems; the attraction and retention of qualified ADP professionals given the inducements present in today's marketplace; the need for a greater degree of standardization in the Agency's development of ADP software; and the need to achieve Agency standardization in dealing with a burgeoning hardware market which includes a profusion of minicomputers and microcomputers.

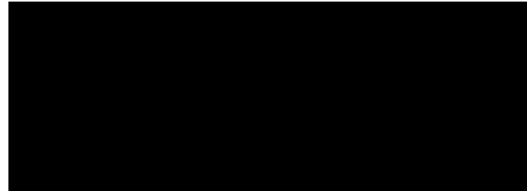
5. Regarding paragraph 3.c. in the Taylor memo, the answer to the question on Agency-wide management issues is foreshadowed in paragraph 3. above. Certainly the merger of technologies and the implications of that merger must be of concern to Agency managers. Related is the prospect of uncontrolled proliferation of various standalone devices loosely covered by the general rubric, "word processors." The proper organizational placement of control over word processing, the relationship of that control to organizational control over computerized printing, and the relationship of both of those functions to the traditional functions of communications and ADP, involve organization issues which must be dealt with at the Agency level.

6. There is one other major issue which deserves attention although, regrettably, its resolution does not lie within the independent authority of the Director of Central Intelligence. Despite the increasing availability and utility of minicomputers as a viable alternative to large scale centralized computers, restrictive procurement directives and budgetary decisions have imposed limitations on ODP which cripple its efforts to manage the development of this alternative in a logical and systematic manner. Indeed, this question of restrictive procurement directives goes beyond the matter of minicomputers into a whole realm of ADP procurement and could inhibit any Agency program to manage, in a thoroughly systematic way, the complex of activities which can be called information handling. At some point the limitations imposed on this and other agencies by these restrictions and the cost to the U.S. taxpayer of these restrictions should be addressed and brought to the attention of senior policymakers in the government.

7. Paragraph 3.d. in the Taylor memorandum asked what programs underway have a bearing on these issues. Clearly from the ODP point of view the system most likely to bear upon the development of information handling in CIA is the SAFE system. Any external study of our attempts to develop more effective information handling practices would be incomplete if it did not evaluate SAFE and its long range implications. Another program which deserves attention is the ODP effort to standardize on a general purpose, versatile soft copy terminal complete with options which would turn the terminal into a very powerful microcomputer and word processor interconnected with other terminals, with the mainframe computers and, in theory at least, also connected to other locally positioned minicomputers. Finally, we now have the capability to generate cables in electronic form, ready for transmission once released, and we are developing the ability to create the input to the Office of Logistics ETECS system. Such information handling capabilities have large implications for the ways in which we will communicate, manipulate and publish intelligence information in the future.

8. As the answers to these questions were being collected in ODP there was frequent reference to the size of the problem under discussion and one knowledgeable group used the phrase "formidable undertaking" to describe the nature of this task. Regardless of how formidable it may be, it seems to us imperative that some systematic way be found to address these problems. The prospect is clear; they can be addressed now while they are still relatively

small or they can be addressed later after they have created untold mischief and uncounted headaches for Agency managers. In the words of the television advertisement, "You can pay me now or you can pay me later." The price we pay now, however large, will assuredly be smaller than the price we pay later.



STATINTL

14 Dec 1978

MEMORANDUM FOR: [REDACTED]
Assistant for Information, DDA

FROM: Thomas B. Yale
Director of Finance

SUBJECT: Information Handling Study Response

STATINTL

1. This is the response you requested in your 25 November 1978 memorandum. We have structured our responses according to Mr. Taylor's questions in his memorandum of 21 Nov 78.

- A. Information Handling Definition: Information Handling is the preservation of data from the time it is displayed in readable form until it is no longer required and destroyed. This preservation period consists of many manipulatory activities including but not limited to: editing, filing, reorganizing, calculating, reporting, publishing, querying, statistics, distributing, linking related data (directly related or referenced data), historical and archival.
- B. Major problems in handling information: Our major problems are: (1) the volume of information requiring our response to short deadlines because (a) distribution to us takes days (b) preparation of response takes too much time even with the use of MAG CARD II; (2) distribution from us requires time for making copies and mailing to recipients; and (3) monitoring requested responses requires clerical support.
- C. Agency wide management issues:
 - 1. Reorganize organizational structures to minimize coordination requirements encountered when developing and maintaining information handling systems. With a move towards increased requirements in utilizing computer teleprocessing networks, Office of Data Processing and Office of Communications need to be more closely associated organizationally.

2. Duplicate effort in many components vice a network approach to information handling.

D. Programs bearing on these issues:

CRAFT

AMPS/FAMPS

RAPID

ETAR

2. Hopefully our response will be helpful in developing the consolidated DDA response. If you have any questions address them to [REDACTED] C/Plans and Systems Staff/OF, on extension [REDACTED]

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[REDACTED]
Thomas B. Yale

STATINTL

13 DEC 1978

MEMORANDUM FOR: Assistant for Information, DDA

FROM: James H. McDonald
Director of Logistics

SUBJECT: Information Handling Study (U)

REFERENCES: a. Multi adse memo fm AI/DDA dtd 28 Nov,
same subj (DDA 78-4384/1; OL 8 5409)

b. Multi adse memo fm Comptroller dtd
21 Nov, same subj (DDA 78-4384)

1. Per your request, this memorandum responds to the questions contained in reference b. Our answers which follow are keyed to the appropriate paragraphs in reference b. (U)

a. Definition: An information handling system can be defined as a collection of people, procedures, and equipment designed, built, operated, and maintained to collect, record, process, store, retrieve and display information. The system may be computer-based or manual, or include both of these.

We have taken the liberty of adding the word "system" to "information handling" since, in our view, there are so many different parts and facets to the processes of gathering, transferring, and storing information that the processes can best be described as a system. Further, our logistics courier service, which is a manual information handling subset, is as much a part of the system as are the computers and electronic transmission devices. (U)

b. Technological advances have given us the capability to collect enormous amounts of information. There is such a proliferation of information and "hard copy" printout that managers are being inundated with mounds

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SUBJECT: Information Handling Study (U)

of information. It becomes very difficult for managers to sift through this vast amount of material, retain what is significant or germane to their specific needs, and encapsulate this data into something meaningful which can help them in making decisions.

Speaking from the Office of Logistics (OL) and DDA perspectives, it would appear that we are being propelled by these technological advances and all the possibilities offered. We are responding independently, rather than collectively, without understanding the full impact of all the small parts of the system on the other parts. There needs to be a greater effort towards the integrated development of information handling systems, with direction and coordination stratified at the directorate level. (U)

c. Closely related to the question just addressed, there is a definite need for centralized planning, at least at the directorate level. It is important to keep pace with advanced technology and, when upgrading the system, to be sure to take into account the total system. For example, computer-based systems tend to generate large amounts of "hard copy." Not only are the massive amounts of paper bulky, it becomes difficult, if not impossible, to store--and the tendency is for the user to generate and retain all this paper. Only information that needs to be retained outside the computer should be kept, and then it should be reduced to a manageable size. Therefore, it is important that sufficient microform equipment be available to reduce records to a manageable size.

We envision major problems in the information being collected. Systems today make it easy to collect all kinds of data. There needs to be more collaboration among offices to prudently select only that information which is meaningful. There needs to be a closer integration of manual and computer-based systems, with perhaps greater reliance placed on use of "electric mail." Not only would this shift enhance the security of transmitting mail, it would lend to a more effective utilization of the courier system. (U)

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SUBJECT: Information Handling Study (U)

d. OL has a number of computer-based systems which impact other offices within, as well as outside, the directorate. The ETECS, managed by the Printing and Photography Division, can be accessed by other users. The CONIF, ICS, SECOND, and others directly effect operations in other offices. As these and other planned OL systems develop, it is important that there be more cooperation and planning among offices.

Looking ahead, OL operations provide a fertile environment for computer-based management information systems. Some of these have been developed and others are yet to come. Eventually, we can foresee the electronic transmission of requisitions from field stations directly into the Inventory Control System. The Clandestine Records Application Field Terminal (CRAFT) system, currently under development and expected to be operational in the early 1980's, will provide a capability between field stations and Headquarters for electronic transmission, storage and retrieval of formal records. Systems such as these must be looked at in the broadest context so that the needs of all intended users are properly addressed. (S)

2. The above responses obviously are not intended to provide an in-depth analysis of the problems we are addressing. However, we believe this is an area of major concern, and this office is prepared to participate in any way that it can to properly deal with this important issue. (U)



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13 December 1978

MEMORANDUM FOR: [REDACTED]
Assistant for Information, DDA

FROM: Charles A. Bohrer, M.D.
Director of Medical Services

SUBJECT: Information Handling Study

REFERENCE: DDA 78-4384/1 dtd 28 November 1978,
same subject

STATINTL

1. Since it appears to have been concluded the capability does not exist within the Agency to satisfactorily complete an Information Handling Study, it appears reasonable to retain external consultants to assist in accomplishing this task. Whatever external group is selected should have people assigned with expertise in computer hardware and software, data communications, information storage systems, word processing, information handling management, et cetera and who do not have a vested interest within their areas of expertise. It is further agreed the consultant group should have a proven record of successfully addressing and solving other organizations' information-handling problems and needs. Finally, it is most important to have the consultants work with an Agency group devoted to this study, so that any resulting conclusions and recommendations are realistic and pertinent to the Agency's needs.

2. The following material addresses information handling and management issues it would be anticipated would be included in the statement presented for senior Agency management review and discussion:

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SUBJECT: Information Handling Study

a. A definition of information handling should include those activities, equipment, and supplies used to collect, transmit, encrypt, decrypt, compress, decompress, analyze, interpret, store, retrieve, share, collate, transform, classify, display, produce, publish, retire, and destroy information to assist the Agency in accomplishing its missions and functions.

b. Major problems that face the Office of Medical Services (OMS) are the following:

(1) Principally Intraoffice

(a) protection of individual privacy and medical confidentiality,

(b) satisfying medical-legal requirements for authentication, accuracy, and retention of information, and

(c) Current information handling activities (IHA) are by necessity divided among several OMS personnel to enable satisfactory transaction of required IHA. Any program which would integrate all IHA and make these functions the responsibility of one person would require a major realignment of duties of several staff personnel, require additional training for the concerned OMS staff and/or depending on the magnitude and complexity of the IHA task may require the establishment of a new specialized position.

(2) Interoffice/Multi-office

(a) automated system to identify outdated employee, dependent and applicant records for destruction,

(b) automated system to prevent double payment of medical insurance claims by OMS, Personal Affairs Branch, Office of Personnel (OP), and the Insurance Branch,

(c) re-institution of the automated system to advise OMS and all other Agency offices of all accountable property so these items can be properly monitored, and

SUBJECT: Information Handling Study

(d) automated transfer of administrative information between OMS, OP, Office of Security, et cetera to expedite case processing and research studies, while protecting individual medical confidentiality and privacy.

c. Agency management issues that need attention:

(1) development of a managerial structure to manage, develop, control, coordinate, and optimize information-handling activities without destroying individual office requirements and creativity,

(2) expansion of activities to utilize standard hardware and software so as to derive the benefits of economy of scale and reduce maintenance and training requirements,


(3) continuation and enhancement of the activity to continually monitor technological advances in information-handling capabilities to assist in determining contractual commitments. This will assist in determining the resources required to provide satisfactory support for Agency activities, while retaining the flexibility to move in a number of directions consistent with the advancement in technology and business manipulations.

(4) Should information handling activities (IHA) be the responsibility of one or several individuals in each office, directorate, and the Agency? Whatever the decision, what authorities will this/these individuals have in dealing with information handling issues? Can existing staff personnel absorb and be trained to carry out IHA or must new positions and personnel be obtained to satisfactorily perform these newly integrated activities?

d. Programs now underway that have dramatic implications in information handling and are candidates for applying a coordinated holistic information handling approach are the following:

- (1) SAFE and
- (2) CRAFT

STATINTL


Charles A. Bohrer, M.D.

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78-4384/a

ADMINISTRATIVE - INTERNAL USE ONLY

12 DEC 1978

MEMORANDUM FOR: [REDACTED]
Assistant for information, DDA

FROM : F. W. M. Janney
Director of Personnel

SUBJECT : Information Handling Study

REFERENCE : AI/DDA memo to D/Pers (DDA-78-4384/1)
dated 28 Nov 78, same subject

STATINTL

1. In response to referent memorandum there follows our perspective on the information handling and related management issues. Reply is keyed to the questions in paragraph 3 of the Comptroller's memo of 21 November 1978.

a) Definition: Information handling is the acquisition, reproduction, storage, processing and transfer of data.

b) Major problems in Information Handling as related to ADP, communications, records management, and word processing:

-- Inter office and inter directorate coordination and cooperation when interfaces between the various Agency Automatic Data Processing Systems are required. The issue generally arises as to which system will be modified to allow for compatible interfaces. When neither party or parties will modify their system, it means the storing of extra data for identification purposes or extra processing is required in order to make the data passed compatible.

-- Lack of a systematic approach to the modernization of information handling systems. Most progress is made on an individual basis with little or no transfer of the learning experience to other areas. (Re-inventing the wheel each time!)

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ADMINISTRATIVE - INTERNAL USE ONLY

Page Two

Subject: Information Handling Study

-- Problems in obtaining new terminals, printers and communications lines for outlying buildings.

-- Problems in maintaining reliable communications circuits for outlying buildings.

c) Agency wide management issues in Information Handling:

-- Is the current structure for the coordination of word processing equipment adequate?

-- Should there be an Agency Information Control Officer at the DCI level for policy, planning and control to include ADP, word processing and communications? Info Control Officers and staffs at the directorate level and office level?

-- Should the Info Control Officer staff include a data base management function?

-- Are the communications requirements of the offices being satisfied? Is the present communications system providing satisfactory service?

-- With the move towards minicomputer, is ODP taking steps to assure they will be able to support customers in the future?

-- Should there be any changes in the way the acquisition of minicomputers is coordinated, or should ODP continue to be the central point of coordination?

-- Is there adequate project oversight and reporting at the directorate level (to avoid ADP projects which go on forever but never get completed)?

d) Programs underway or planned which have a bearing on these issues:

-- PERSIGN: interfaces with several other offices, and the interface issue it raises.

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Page Three

Subject: Information Handling Study

-- The current personnel computer system and the problems of getting reliable communications in outlying buildings in order to use the system properly.

-- Improving the word processing capability in the Office of Personnel.

-- The Applicant Processing computer system and Insurance System and the problem of obtaining terminals and communications support.


F. W. M. Janney

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ADMINISTRATIVE - INTERNAL USE ONLY

14 DEC 1978

MEMORANDUM FOR: Assistant for Information, DDA

FROM:

████████████████████
Deputy Director of Security
Policy and Management

STATINTL

SUBJECT: Information Handling Study

REFERENCE: Memorandum from AI/DDA to multiple
addressees dated 28 November
1978, same subject (DDA 78-4384/1)

The following comments are submitted in response to questions posed by the Comptroller as set forth in the attachment to the reference:

a. How, for management purposes, should we define information handling?

Answer: That process which involves the economical and efficient storage, retrieval and communication of useful information and the systematic elimination of information as it becomes obsolete.

b. What are your major problems in handling information that presently affect or will in the future affect the performance of your component and/or other Agency components?

Answer: The Office of Security views its most significant problem as being in the area of computer downtime. This factor, in many cases very subtle, has a cumulative effect that can result in major losses in resources and program effectiveness.

c. What are the Agency-wide management issues in information handling that you believe need attention in this study?

Answer: It is the opinion of this Office that the most important information handling issue facing


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the Agency and the Community today is computer security. In view of the lack of confidence and reliability in computer software and the growth of computers into large systems and networks, the threat of a major security incident is very real. Systems have been proven to be vulnerable and in view of the quantity of information we are now computerizing, the potential penetration loss and compromise could be devastating.

Another management issue in information handling that in our view should be of significant Agency concern is the growth in the amount of information we are collecting and perhaps unable to use. This issue applies to the growth of our records both in hard copy and computerized form. While we have acknowledged this growth problem in the hard copy world, the compression capabilities of computers and microfiche have tended to make the problem less visible in these areas.

d. What programs, now under way or being planned, do you think have a bearing on these issues and therefore need to be addressed in this study?

Answer: The Directorate of Administration as well as other Agency components have made significant strides in a formal manner over the past year in reviewing Agency records for the purpose of identifying obsolete materials. In our view these records review programs have a distinct bearing on aspects of the information handling problem. In addition, current attention is focused on the need for document accountability; while this activity has mainly concerned hard copy material, the issue certainly involves computerized data.



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ADMINISTRATIVE - INTERNAL USE ONLY

OTR 78-8825

14 DEC 1978

MEMORANDUM FOR: Assistant for Information, DDA

FROM: Harry E. Fitzwater
Director of Training

SUBJECT: Information Handling Study

REFERENCE: Your memorandum dated 28 November 1978,
Same Subject

1. Listed below are Office of Training (OTR) comments and perspectives on the Agency's goal concerned with information handling.

2. Critical to the development of a better structure for coordination and carrying out the Agency's information handling activities is an improved understanding among the personnel of the Agency about the on-going activities in this area and the rapidly evolving technology developments which might improve the performance of these activities. With respect to major problems we feel that each Agency component must define its own specific information needs. For example, OTR needs to understand what it is expected to produce and the time frames within which production must take place. OTR operations have to be responsive to the goals of its consumers; thus, most critical to OTR are component management goals which can be translated into training needs.

3. The OTR Information Science Center in its various courses can help develop better tools for data handling. An understanding of the information handling problems and the issues involved might be facilitated in some instances by the development of system dynamic models of these systems-- or perhaps other types of models, such as queuing. To do this successfully generally requires a partnership between the people that have the problem and the methods people, and some degree of familiarity on the part of each of the participants with the other's tasks.

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SUBJECT: Information Handling Study

4. The Office of Training stands ready to assist in this study to the extent of its resources and capabilities.




for Harry E. Fitzwater

STATINTL

ADMINISTRATIVE - INTERNAL USE ONLY

28 November 1978

MEMORANDUM FOR: Director of Communications
Director of Data Processing
Director of Finance
Director of Logistics
Director of Medical Services
Director of Personnel
Director of Security
Director of Training
Chief, Information and Privacy Staff
Chief, Information Systems Analysis Staff

FROM: 
Assistant for Information, DDA

SUBJECT: Information Handling Study

REFERENCE: Multiple addressee memorandum from James H. Taylor dtd 21 November 1978, same subject

STATINTL

I have been asked to pull together the DDA response to the attached memorandum from James Taylor, Comptroller, regarding the Agency goal concerned with information handling. Attached is the memorandum from Mr. Taylor as well as two papers on information handling pulled together for the discussions held in June and September on Agency goals. The Taylor memorandum is self-explanatory and requests the perspectives of all components on the information handling problem and related management issues. Since we must have the DDA response to Jim Taylor by 15 December, I would appreciate it if you could have your response to me by COB on 13 December.

STATINTL

Attachments: a/s

21 NOV 1978

MEMORANDUM FOR: Deputy Director for Administration
Deputy Director, National Foreign Assessment Center
Deputy Director for Operations
Deputy Director for Science & Technology
Administrative Officer, DCI Area

FROM : James H. Taylor
Comptroller

SUBJECT : Information Handling Study

1. (A/IUO) At the Director's June conference on goals the DDA submitted a proposal for developing a better structure for coordinating and carrying out the Agency's information handling activities. At the Director's September conference the goal was resubmitted jointly by the DDA and the Comptroller, revised as follows:

Goal 1: Develop a comprehensive information handling strategy for the Agency and a structure for more formal, continuing coordination of the Agency's ADP, communications, records management, and word processing activities.

The reasons for developing a "comprehensive information handling strategy" are numerous. The attached paper entitled Information Management in CIA was an integral part of the goal package discussed in September and addresses some of them. In addition, we believe that some components are having difficulties trying to plan future information handling programs in the absence of a cohesive, Agencywide plan. For all of these reasons, senior managers have agreed on the need for a comprehensive review of Agency information handling activities.

2. (A/IUO) The approach recommended in September was to hire "the best possible outside management or consulting firm" to formulate recommendations for Agency consideration. Further discussion of this goal since September has led to the conclusion that as a first step, a comprehensive, if generalized, statement of the task should be developed and submitted to the EAG for discussion and restatement as necessary. Once we have agreement on the task, we can select a senior officer to direct the project, prepare a formal statement of work, select a suitable contractor, and initiate the study.

3. (A/IUO) To ensure that the tasking statement which goes to the EAG is as comprehensive and thoughtful as possible, we are soliciting

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input from all Agency components. What information handling and management issues would you expect to be included in a statement presented to senior Agency management? We would like your responses to address at least the following:

(a) How, for management purposes, should we define information handling? So many define it so differently that we need to develop a composite definition.

(b) What are your major problems in handling information that presently affect or will in the future affect the performance of your component and/or other Agency components?

(c) What are the Agencywide management issues in information handling that you believe need attention in this study (e.g., planning, utilization of technology, internal organizational relationships, others)?

(d) What programs, now underway or being planned, do you think have a bearing on these issues and therefore need to be addressed in this study?

4. (A/IUO) I would like to have your responses to this request by 15 December. While I leave to your discretion the structure of your response, I believe it would be helpful if the comments of your individual components could be made available to us. We need as broad a response to this issue as possible if we are to develop a meaningful and complete tasking statement. Presentation to the EAG will be scheduled for early 1979.



James H. Taylor

STATINTL

Attachment: As Stated

The Executive Advisory Group has given considerable attention to the problem of managing the automatic data processing activities of CIA, recognizing the need for careful control over the growth of this expensive resource. It is becoming increasingly apparent, however, that to control ADP is to control only one element in a family of activities, all of which involve the handling of information.

CIA collects, transmits, stores, retrieves, shares, collates, transforms, produces and publishes information in bewildering profusion. To facilitate these multiple processes we have developed highly sophisticated and costly communications and ADP systems, related in various ways to our printing and publication facilities and to the pervasive records management processes through which we identify and safeguard the information we need to accomplish our intelligence tasks.

These various information handling tools are highly interdependent. Computer data flows on communications lines; communicated messages come to rest in computer data banks; computerized records are converted to microfilm and microfiche; filmed and paper records are scanned electronically for communication to remote display terminals; word-processing techniques expand the computer data base or feed computerized text-editing and printing processes, etc., etc. A management program to control a single element in this family of activities will be frustrated by the ways in which decisions made in another area can generate new, unprogrammed increases in workload. An awareness by the managers of the larger information service components of the need for coordination has protected us from major problems to date, but a new element is entering the picture, threatening organizational loss of control.

The emerging, as yet ill-defined techniques of "word processing," are beginning to place in the hands of individual officers or units the capacity to handle their information far more effectively and efficiently. This new localized word processing power is accompanied, however, by the ability to generate new and unanticipated demands on the central ADP and communication systems, and it threatens to have dramatic impact on our records management programs. The Information Systems Analysis Staff in the O/DDA is attempting to measure the costs and benefits of these new techniques, but is finding that without the ADP and communication factors, the analysis of word processing lacks significance. There are, to be sure, "stand-alone" word processors, but the advantages of interconnection are enticing and easily obtained in today's market, and the use of computer terminals as word processors (using software packages like SCRIPT) has the potential for uncontrolled growth.

The new Office of Community Information Systems (OCIS) will apparently be looking at some of these problems as they relate to the Intelligence Community. CIA has no counterpart to OCIS, no single voice speaking knowledgeably about the way information is or should be managed in the Agency. Indeed, as is noted at budget defense time every year, CIA does not even have one focal point for all its ADP effort. The Director of Data Processing manages and can speak for only about half of the Agency's ADP resources.

One of the three DDA management goals for 1978, along with the search for greater effectiveness and proficiency, was the enhancement of information management. As we attempt to achieve this goal, we are continually reminded of the fact that in CIA the sharing of information and information-handling facilities makes a one-directorate approach to this problem ineffective. We need a mechanism to plan and coordinate our information-handling activities on an Agency-wide basis.

1. This recommended approach is submitted in concert with the Comptroller.

2. Additional thought and discussion has been given this matter since the goal was first submitted for consideration in June. That consideration has led to a series of both negative and positive conclusions. The negative conclusions are:

a. The somewhat traditional and conventional Agency approach of appointing an inter-directorate staff study group reporting to EAG is insufficient for the cause.

b. The magnitude of the problem, availability of qualified Agency personnel to study it full-time, and the need to capitalize on the best experience and technology available preclude an exclusive in-house attach.

c. The presence of biases, subconscious or otherwise, amongst Agency personnel would inhibit the development of the most objective considerations to meet the problem.

The positive conclusions arrived at are:

a. The problem is real, is here, and a failure to study and attack it now will only exacerbate a solution at a later date.

b. The attack on the problem should not be undertaken unless we are absolutely committed to solve it.

c. The implementation to the solution to the problem may well involve a major, if not drastic, realignment of operating components in this Agency, with the most dramatic possibility being the creation of a new directorate. If we are not prepared to accept and seriously discuss drastic remedies, we should not undertake the exercise.

d. A project director from the Agency, backed up by an Agency steering committee, should be appointed. The major study and formulation of recommendations, however, should be done by the best possible outside management or consulting firm that we can select. This firm should have a demonstrated record in attacking and successfully recommending solutions to some counterpart problems.

e. The study will not be inexpensive and should not be forced to meet an unreasonable time frame.

3. If all of the above stipulations are accepted, an initial implementing step, working within the constraints established above, would be to appoint the project manager and steering group to develop and operating plan of attack, to include a statement of the problem.