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NOTE TO: EXO/DDA
ADDA
DDA

86-0038

25X1

FROM: [redacted]
Chief, DA Plans Staff

SUBJECT: Background Material on Consideration of Incorporation of OIS into OIT

Very little hard copy exists that addresses incorporation of OIS into OIT. I have searched in the following four areas:

1. The 28 August 1980 Information Handling Study (IHS).

2. The October 1982 Strategic Plan for Information Handling Systems (SPIHS).

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3. The DCI's conference [redacted] on 7-8 January 1985.

4. Meetings of the Executive Director's Information Systems Board (ISB).

I found the following comments on information organization (some of it is related to OIS functions, but most is more directly related to the DND and ODP merger or information management structure in general):

1. Attachment A is Section 5 on Alternative Management Structures of the IHS. Although it has some outdated information on an architectural staff approach to information services, the discussion on alternative management structures for information services is useful.

2. The SPIHS contains words on Information Management, but it doesn't address the organizational aspect of it.

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3. Attachment B is John McMahon's memo (including [redacted] paper)
25X1 on topics for the DCI's conference [redacted] I call particular attention to Section VI on Organizational Issues. None of the action items that came out of the conference had directly to do with OIS or OIS functions.

4. Discussions of the incorporation of OIS into OIT issue may have taken place in some of the subgroups of the ISB, but no record of such discussions was kept.

Much of the information that Mr. Fitzwater had on the OIS into OIT issue
25X1 apparently came from discussion with [redacted] Bill
25X1 Donnelly, and [redacted] They themselves will be the best source for
25X1 background on the issue.

[redacted]

Attachments

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5. ALTERNATIVE MANAGEMENT STRUCTURES

In addressing alternative management systems for information services, the consideration is to what degree management of information services should be centralized or decentralized.

However, the problem cannot be dealt with in such global form. One must decide what is to be centralized or decentralized. The management alternatives that follow are derived by viewing the problem from three levels of management control. This analysis technique is employed by IBM in their methodology for business systems planning which is in turn based on a method of organizational analysis developed at Harvard.

The methodology speaks to three levels of control:

Level 1: Strategic Planning—the process of deciding on objectives of the organization, on the resources used to attain these objectives, and on the policies that are to govern the acquisition, use, and disposition of resources.

Level 2: Management Control—the process by which managers assure that resources are obtained and used efficiently in the accomplishment of the organization's objectives.

Level 3: Operational Control—the process of assuring that specific tasks are carried out effectively and efficiently.

As applied to Agency Information Handling, the questions become:

— How should we organize to set goals for information services, decide investment strategies, and set policy on system acquisition, use and disposition?

— Who should prepare and defend, budgets, control positions, and manage the careers of information service specialists?

— Who should be in day-to-day command of operational systems and their staffs?

If one considers the possibility of placing each of these controls at different organizational levels, i.e., Agency, directorate, or office level then many options are made available for evaluation. Adding to the possible list of line options is the concept of addressing strategic planning through staff organizations.

The option tree which follows depicts the range of alternatives selected by the Task Force for study. This tree identifies six families (enclosed in boxes) of options that are described in some detail in Attachment C.

5.1. Executive Committee Guidance

The DCI's Executive Committee has reviewed all options presented in Attachment C of this report. In selecting the preferred option, the major factors considered were:

A. User Satisfaction—the degree to which information services produce satisfaction both internally and externally.

B. Planning and Budgeting—the degree to which an organization allows us to assess the current state of affairs, forecast the future, defend and allocate resources rationally.

C. Disruption—the degree to which an organizational change will interfere with the provision and use of current information services.

D. Information Control—the degree to which an organization allows us to insure that information is provided only to those with an officially approved need-to-know.

E. Personnel Resources—the organization's ability to recruit, train, and maintain a skilled cadre of information specialists.

The findings of EXCOM were:

A. There is a need for a central planning function in CIA to provide a more coherent development of future information systems.

B. While there may be justification for structural change along the lines recommended by this report, creating a total new directorate is judged undesirable due to the decrease in user satisfaction that results from the inertia and insensitivity of an overly large organization.

C. An increase in Agency level career management was judged to be unwarranted at this time. Furthermore, at least one senior manager views authority over career services as a key element in maintenance of effective compartmentation.

D. There may be virtue in greater use of mission budgeting for some forms of information services. However, rapid shifts in budgeting strategy can have negative effects in terms of external relationships. For the near term, it is judged better to maintain the central service budgets but with a more relaxed view toward mission budgeting as a means to capture necessary resources when central services are unable to adequately defend the total Agency need.

In sum, it was the consensus of the Executive Committee that the only change in Agency level management justified at this time is the creation of a System Architectural function to plan for future information systems from the broader Agency viewpoint.

Further organization and management change that may be indicated by the results of this report and the establishment of the Architect is the responsibility of each Deputy Director.

The remainder of this chapter addresses itself to regulatory establishment of a Systems Architect.

5.2. Architect of Information Services

Mission:

Performs Agency level planning for Information services with particular emphasis on application of technology.

Functions:

1. Publishes Strategic goals and objectives for purpose of program guidance.
2. Monitors progress toward goals and objectives and reports state of Information Handling to EXCOM (incorporates ADP review).

3. Consolidates requirements for IH to maximize commonality and minimize unique development.
4. Conducts design reviews during conceptual design phase.
5. Maintains technology forecast and reports trends to management.
6. Acts as Agency focal point to Community on matters of IH.
7. Commissions system designs to fulfill architecture.
8. Initiates studies and analyses for the purpose of identifying ways to improve effectiveness and efficiency of IH.
9. Maintains a current data base on the status of information systems and their interrelationships.

5.3. The Appeal Mechanism

The reasons for appeal are:

1. Failure of the Agency plan to satisfy Directorate requirements.
2. Failure of a Directorate to adequately program for fulfillment of the approved plan.
3. An irreconcilable policy difference between or among the Architect and the Directorates that impedes planning and implementation.

The process of appeal may be initiated by the Architect or a Deputy Director. The appeal will be addressed to the DDCI and will contain a well defined statement of the issue, a succinct statement of the rationale supporting the originator's position, and a recommended alternative course of action. A copy of the appeal will be provided to contending parties who will prepare respective position papers for the DDCI.

The DDCI may refer the issue to EXCOM for further advice and may refer the issue to the DCI for resolution.

5.4. The Architectural Staff

The Architectural Staff should consist of a Chief Architect, four technical specialists, and clerical support.

The Chief Architect should be of senior grade, have substantial experience and interest in management of technical activities, a proven record of high calibre representation and ability to maintain good interpersonal relationships with subordinates, peers and superiors. Broad technical background encompassing communications and ADP is highly desirable. The position is expected to demand aggressive advocacy of controversial concepts. The incumbent should have a knowledge of Agency organization and management processes.

The technical specialists should consist of:

1. A systems engineer widely knowledgeable of telecommunications, ADP, and word processing technologies. This person should have reasonable experience in project management of large systems, exhibit good interpersonal relationships, be articulate, capable of producing well written correspondence.

2. A software specialist widely knowledgeable of operating systems, applications, and have experience with project management of software development. Personal characteristics should be similar to those above.
3. A database specialist broadly knowledgeable of principles of information storage and retrieval regardless of media, familiar with Federal regulations concerning storage and disposal of official records, and having personal experience with design and maintenance of electronic data bases. Personal characteristics as above.
4. A human factors specialist with a wide-range of experience in dealing with man-machine interfaces, knowledgeable of system documentations systems and procedures, and capable of providing guidance on user training courses and their construction. Personal characteristics as above.
5. A senior clerical with broad knowledge of Agency administrative procedures, qualified operator of word processing and computer terminals, capable of performing as a para-professional to Staff Officers in addition to performing normal secretarial functions.

5.5. Positioning the Architect

There are two organizational locations considered for the Agency Architect. One location is the Office of the DCI and the other is within an existing Directorate.

Within the Office of the DCI the Architect could be directly supervised or seconded to an existing staff organization such as the Comptroller or EXCOM Staff. From the Architect's perspective there will be a desire to have the DCI as organizationally close and accessible as possible in order to enhance power and authority over the planning function. However, placing the Architect immediately under the DCI is judged unsatisfactory because it inevitably diverts DCI time and attention to highly technical subject matters in greater depth, out of proportion to other areas of DCI responsibility.

This leads to examination of other possibilities within O/DCI that would provide a supervisory buffer between the DCI and the Architect. One possibility is the EXCOM Staff. But, while the architectural function may bear some similarity to the Agency strategic planning function recently installed in that Staff, the architectural function has a vital need to be institutionalized in a way that guarantees more permanence than historically exhibited by staff organizations at the DCI level. The Office of the Comptroller represents an O/DCI organization with permanence. However, there is wide concern that seconding the architectural function to the Comptroller will result in overriding emphasis on perceived resource constraints as a planning criteria.

In sum, it appears that the advantages of positioning the Architect in O/DCI accrue only to the Architect in terms of enhanced prestige and implied authority. The disadvantages are excessive demands on DCI time and attention for lower level technical issues or questionable survivability of the function beyond the tenure of current Agency leadership or over-riding emphasis on resource constraints in the planning process.

The second option, delegating the architectural function to a Directorate appears to avoid the major disadvantages associated with placement in O/DCI. However, this advantage is at least partially offset by the lesser prestige and potential diminution of authority and influence inevitably resulting from competitive forces among the Directorates.

If delegation to a Directorate is considered, then the logical candidate is the DDA. This Directorate has the bulk of the resources and expertise peculiar to the IH function. It also holds a unique responsibility among Directorates to ensure equality of service Agency-wide.

From the DDA perspective there is advantage to having a staff function that can provide impartial advice and assistance to Directorate management on the large number of technical issues arising among DDA components in provision of information services.

Placement in the DDA will be seen as a disadvantage by users since they will reasonably expect planning efforts to reflect the dominant concerns of DDA support elements at varying degrees of sacrifice of user satisfaction. To ensure a proper balance of user and provider concerns, there should be heavy emphasis on meaningful user participation in planning and well defined appeal mechanisms.

One means of redressing the perceived provider/user imbalance is a larger committment to mission budgeting which gives users increased resource control and hence, more influence in the planning process. In fact, mission-budgeting implemented in its most extreme form could over-compensate the system to the detriment of both central services and architectural function.

In lieu of significant shifts in budgeting responsibility, the best candidate solution for providing provider/user balance is formalization of a user group that can deal with requirement consolidation, requirement priorities, and critical review of architectural plans. Representatives to the group would be Directorate spokesmen. The Architect would assume the role of arbitrator amongst users and providers. Appeals above the Architect would be first to the Deputy Director level, and beyond that, the DCI/EXCOM level.

The alternative of legislating inter-directorate representation on the architectural staff itself is considered too constraining on the personnel selection process to warrant serious consideration. This is not to say that all expertise should be drawn from within the DDA, but that the selection process should place prime emphasis on job qualification without regard to current career allegiance.

ALL PORTIONS THIS CHAPTER UNCLASSIFIED

#3 of 10

CONFIDENTIAL

28 DEC 1984

NOTE FOR: DCI

FROM : DDCI

SUBJECT: Topics for Off-Site Conference

180-3

Bill:

Here are three things Jim and the Deputies would like to talk about at our planned off-site session.

First, your recent memo on excellence, emphasizing substantive accomplishments rather than the procedural and bureaucratic aspects which you correctly, I think, sense that we have mostly focused on to date. The Deputies are anxious to show you that a lot of what you are seeking is in fact going on, and I think the session by its very nature might generate some more good ideas.

Second, we'd like to talk about the Agency's recruitment problem. You mentioned the other day your thought that perhaps we should be considering decentralizing the recruitment process. Each of the Deputies would like you to understand how much decentralization there already is. Possibly more important, however, having just put the Office of Personnel through the wringer on recruitment issues several different times, we would just as soon avoid the topic of reorganizing the office again. I think we would prefer to talk about what we need to do to get America's academic and maybe business institutions better motivated to help us spot our future employees.

Finally, you asked Jim early on for his thoughts on the world of computers. He is ready to talk about what he thinks ought to be done. That's contained in the attached paper he has already shared with the Deputies, which you should read. The paper should provoke wide-ranging discussions.

I know you'll have other ideas, but these are things on my mind at the moment.

25X1

John McMahon

CONFIDENTIAL

Information Technology Management

The Agency has long used information technology to accomplish its mission. We are heavy users of information technology:

- in support of analysis;
- in our world-wide communications system;
- to help file and retrieve documents and data;
- for computation, modelling, and simulation;
- in our publications, for sophisticated graphics and the printing process itself;
- in support of our many administrative processes, such as payroll, budget, and contracts management;
- for wordprocessing;
- to create, process, exploit, and store digital imagery.

But senior Agency managers with few exceptions traditionally have treated information technology management issues--the use of computers, office automation equipment, communications--with indifference. (After all, intelligence is our business, not computers!) Of course our experience is quite similar to that of other big computer users, who also long ignored these issues. It is also true that when senior managers have involved ourselves in information technology issues, we have often focused on the wrong part of the problem. Past discussions about "limiting growth in the Agency's use of computer terminals" or about "whether we needed to purchase another mainframe computer" generally fall in this category. But as a result of our lack of attention:

-- Technical people and staffers have made the policy and business decisions as well as the technical decisions here for years.

-- We have systems designed by computer professionals for computer professionals--they are powerful and fast but difficult to use,

inflexible, and not "user friendly." (In part, of course, this reflects the age of some of our equipment.)

-- We haven't yet found consistent ways to support properly the evolving needs of our users, or even identify systematically their requirements.

-- Lower level managers without an adequate understanding of the big picture are sometimes establishing our requirements for information technology and building the systems to meet the need. (Note that this decentralized approach also has been responsible for many of our successes.)

Over the years there have been several attempts to raise the "consciousness" of senior managers about information technology issues. Those trying to do this have generally cited these arguments:

-- We must be concerned about the growth of our information technology budget, and about getting the most bang for the buck. (Information technology now consumes about 25 percent of our total budget, and the percentage is growing.)

-- Only a limited number of employees really understand the communications, computer and other information technologies; we need to be sure they are working on our highest priority activities.

-- If we don't exercise leadership and control centrally, we will be confronted with the development of numerous incompatible systems.

These points are valid, but they haven't stimulated much real commitment to the importance of information technology policy and management issues. No one has yet convinced us that there are real advantages to adding this additional responsibility to our busy schedules. In part this reflects our inability to show our senior

people how such attention might be in their interest. In part it reflects our inability to focus attention on the possibilities and the opportunities, rather than the costs and the problems. In asserting once again the need for sustained senior attention to these issues, I emphasize these points:

-- Increasing numbers of our younger people have grown up with the world of information technology and are comfortable with it. Working to understand and be involved in their concerns will pay dividends all through our organization. Ignoring them increasingly makes us seem unenlightened and, frankly, out of touch with the real world.

-- Leadership on information technology issues potentially offers at least as much leverage over what our organization will be like in the future as participation in the budget process has in the past.

-- We are exercising no leadership in an area which is absolutely fundamental to our professional capability. We aren't setting the goals we believe we should be pursuing. Instead, we are relying on lower levels in our organization to tell us both where to go and how to get there. Hear are some of the issues on which we should have views:

- In what priority order should we take on responsibility for developing and maintaining large, on-line databases, like DESIST?

- Should we move toward electronic dissemination (no hard copy) of our finished products and, at what pace?

- Which sets of employees need to be connected via terminals to which other sets of employees?

- What is the real potential for artificial intelligence to contribute to our analytic, operational, and management work and what should our priority be in committing resources to these techniques?

- Can today's sophisticated computer-driven imagery presentation techniques improve analysis and operations?

- How can we use information technology to streamline more of our burdensome administrative and managerial processes (budget preparation and re-preparation; travel accountings, etc.)

In nearly all parts of American business, competitive pressures are forcing senior management attention to information technology issues. The attention grows from a sense that its absence may prove fatal, as competitors increasingly harness these information technology tools to gain advantage. We in government aren't directly subject to such competitive pressures. But our general desire for excellence, and our need to maintain first-class facilities and capabilities in order to attract America's brightest young people to our profession, should themselves stimulate action.

To begin to develop workable processes which will help us solve problems, there are five things we need to do:

-- Encourage information sharing and cooperation;

-- Educate and involve senior managers directly;

-- Establish an Agency infomation technology policy;

-- Stimulate imaginative Directorate planning and, most important

-- Focus senior management attention on selected strategic information technology issues.

I. Encouraging Information Sharing and Cooperation

Our Information Systems Board was established a year ago.* It has been an effective forum for the exchange of information and has put people who needed to communicate in touch with each other. More can be done.

I plan to continue the monthly meetings of the Information Systems Board for the purposes of:

-- Keeping the key plavers in touch.

-- Encouraging broader understanding of our problems.

-- Encouraging experimental activities--such as Artificial Intelligence applications--and tracking and sharing the results of these.

-- Educating the key players. (ORD will give a series of presentations on critical technologies in the future. Cray Research, of supercomputer fame, briefed the Board in November on the future of supercomputers and what they can do. We plan other like activities.)

-- Providing an open door to those with new ideas for technology, applications and information technology management.

*ExDir chairs; the other 11 members are OC, OS, OIS for DA; ASG, OCR for DI; IMS for DO; OD&E, ORD, OSO, NPIC for DDS&T, and Comptroller.

-- Sponsoring broad-based working groups on selected information technology issues (we have used this technique so far to prepare a computer security investment strategy, and to propose options for our Executive Information System).

II. Educating and Involving Senior Managers

The perspective of senior Agency management is too narrow. We need to educate our managers on a continuing basis. I propose:

-- Education designed for executives - We plan to bring IBM to present their one or two-day executive level seminar.

-- Hands-on experience for managers - I have tasked ODP to create an executive network linking key senior people together through our electronic mail system. This is already involving top-level managers directly in using our information systems--and it will make them understand better what "user friendly" means!

-- Continuing influx of ideas - We need to bring in outsiders on a regular basis--managers from industries that are making imaginative use of information technology to accomplish their work, for example--to discuss their approaches and experiences. (We hope that a senior Reynolds Metals executive will meet with us early in 1985.)

-- Increased discussion of options - Senior managers need to be comfortable considering the relation between information systems and physical space, the management of ADP activities, who is best suited to design and develop new information systems, and a host of other information technology issues. Most of all, they need to begin to develop a vision of where we ought to be so that they can

encourage the use of information technology tools to shape our environment and future capability.

III. Establishing an Agency Information Technology Policy

We need a common understanding of where we want to go, a statement of Agency policy and objectives. Such a statement should recognize the fundamental importance of information technology to our profession, and express our intention to use such technology to:

-- Promote the sharing of our information with those we intend to have access to it.

-- Separate the wheat from the chaff, helping us sort through the information we collect, to deliver the most meaningful information rapidly to those who need it to do their work (the data reduction problem).

-- Improve communication and information security.

-- Facilitate the dialogue between our customers, analysts, processors and collectors on requirements issues.

-- Help us better analyze the information we have collected. In particular, we need to monitor AI developments closely for potential breakthroughs which will enhance our analytical capabilities in support of production, operations, and management.

-- Store information of all kinds--text, maps, images, video--in original form to free us from the costs (space) and constraints (limited access) of paper storage.

-- Give to selected Agency populations the ability to create and maintain their own specialized databases.

-- Communicate our finished intelligence to policymakers more effectively and securely.

-- Enter and store information only once.

-- Minimize any adverse impact of new information systems on our physical facilities.

In order to accomplish these objectives, we need to develop a set of rules which:

-- Encourage the use of available and useful ADP products wherever possible to reduce costs, ensure user acceptance, and allow flexible future growth.

-- Assign executive agent responsibility for the development, operation and maintenance of systems of common concern on behalf of all.

-- Encourage competent employees to develop the tools and applications they need to do their job themselves ("end-user programming") and give them the tools (personal computers, training, etc.) they need to do so.

-- Move us toward a distributed architecture which permits text, graphics, imagery and data to be entered, viewed, manipulated and analyzed either locally or centrally by special purpose equipment as appropriate to the task at hand and the constraints of security.

-- Provide one family of terminals with future growth potential and a range of capabilities sufficient to meet most Agency user needs. These terminals should permit easy mastery and transfer between terminal types and they must allow local word processing and use of commercially

easy access to our mainframes. One family is desirable to: limit the number of vendors with access to our building and equipment, limit the numbers of difficult systems our employees need to master, and increase our (limited at best) leverage over suppliers.

-- Enable us to evaluate the competence of those who will be responsible for new development efforts with sizeable multiyear costs. (To help us avoid the past mistakes of SAFE or the FBIS "Rapid" endeavors.)

-- Consider the impact of proposed development activities on our physical working environment. (To avoid displacing more people, we need to control the amount of physical space--now approaching one-quarter of our building--consumed by information systems and related activities. DDA has a task force on this issue now.)

-- Identify advanced technologies which may be of use and justify their inclusion or exclusion from new systems.

-- Enhance our ability to find and hold information technology people who can help us do our work.

-- Establish a comprehensive and thoughtful information system planning process at the Directorate level, as well as user support organizations focussed on the unique needs/requirements of our four line Directorates and the seventh floor.

IV. Directorate Planning

A thoughtful planning process should be encouraged at the Directorate level. I emphasize Directorate level because the problems and opportunities faced by the Intelligence, Operations, and

Administrative Directorates are best considered in a Directorate-wide context. The S&T Directorate case is somewhat less clear, due to the diversity of their functions and the information technology sophistication resident at the Office level.

Planning can be the vehicle which our Deputy Directors use to think through what capabilities they believe their offices or divisions should have. We can encourage this process by requiring periodic plans focused on selected key issues. Following are representative kinds of questions which ought to be addressed in the Directorate planning processes.

For the DI:

(1) What major databases can we envision the DDI may be asked to build and maintain for ourselves and for the rest of the intelligence community? How large a responsibilty will the development and maintenance of such databases be for the Directorate over the next decade?

(2) How much importance do we attach to developing techniques for the electrical dissemination of our intelligence product to outside customers? After the Cabinet level customers, in what priority order should we extend such service? How much interaction with customers do we anticipate such efforts will promote? How much is desirable?

(3) Do we see the widespread application of computer-assisted analysis, modeling and design techniques to the intelligence production process? What kinds of problems seem amenable to these techniques?

(4) Same question for artificial intelligence "expert" systems.

(5) Are there substantive problems on which we might improve our performance if analysts could be "on line" with collectors on requirements issues? If so, can we anticipate what our priorities would be in this respect?

(6) Can we identify areas in which there would be significant savings if we could greatly reduce the amount of human effort expended in entering collected information into databases (automated database generation)?

(7) Can we identify significant areas of analysis where faster and more powerful computation would result in substantial improvements in the timeliness or quality of the analysis? Are there significant analytical problems which are not being addressed because we lack the computational power or technical expertise to do so?

(8) Do we envision the need for analysts to have direct access to outside databases, including those maintained by foreign governments possibly in foreign languages?

(9) What do we need to do about ensuring the accuracy and consistency of data in very large databases so that analysts are all working with the same set of facts?

(10) How much of this development, operation and maintenance would the DI really wish to control directly, and how much would it seek from central services (ODP, OC, etc.)?

For the DO:

(1) What major databases do we envision the DDO may be asked to build and maintain for ourselves and for the rest of the intelligence community in the next few years?

the intelligence community in the next few years?

(2) To what extent do we think that the rapidly evolving computer-assisted analysis, modelling and design tools being employed in industry may have implications for operations? For operations training?

(3) Same question for artificial intelligence "expert" systems.

(4) What kinds of access to non-DO computer files (in DI or elsewhere) will the DO see as desirable?

(5) Which sets of DO employees ought to be able to communicate with which other sets of DO employees electronically?

(6) What will be the impact of the CRAFT system in operational and productivity terms as we approach our installation goals?

(7) How can we use information technology to improve cover for our employees, or help us to establish or disestablish notional cover entities more expeditiously?

For the DDA:

(1) What are the organizational and other implications of our movement toward integrated personal information systems?

(2) How can we use information technology to reduce to an absolute minimum the amount of time and effort devoted by Agency employees to the travel process--from initial approval of orders, to ticket acquisition, to subsequent accounting and audit?

(3) How can we harness information technology to further improve personal accounting in our Agency? Financial integrity?

For the S&T:

(1) Can we identify significant areas of analysis where faster and more powerful computation would result in substantial improvements in the timeliness or quality of the analysis? Are there significant analytical problems which are not being addressed because we lack the computational power or technical expertise to do so?

(2) What do we need to do about ensuring the accuracy and consistency of data in very large databases so that analysts are all working with the same set of facts?

(3) How much importance do we attach to the development of AI techniques--such as image understanding, expert systems, robotics, etc.--and do we see areas of immediate application for such techniques? What kinds of problems would such techniques solve or what kinds of benefits would accrue?

(4) In what ways could automation improve the relationship between analysts, collectors and processors of intelligence? How might our performance improve if such automation were achieved?

(5) What unique requirements does the S&T envision for mass data storage such as imagery, video, graphics as well as text?

(6) Do you foresee any unique communications requirement--for example between contractors and program managers or between NPIC analysts and military users of imagery--which should be factored into our planning for teleprocessing capabilities of the future? Do you foresee any requirement for cleared contractors to have remote access to Agency automated databases?

(7) How much of this development, operation and maintenance would the S&T really wish to control directly, and how much would it seek from central services (ODP, OC, etc.)?

For the Executive Area:

(1) What sort of budget development/modelling system could we develop to reduce tedious detail work, further improve senior involvement in the resource allocation process, and help us make smarter resource decisions faster?

(2) What capabilities should be available on line to senior executives via the Executive net?

(3) How can we harness today's information technology to improve our responsiveness to congressional requests?

V. Senior Management Involvement in Decision Making

We need to get the right decisions to the seventh floor. The previous steps will help. But they will have little effect unless we can identify which decisions are of a strategic character and require senior involvement. This is not as easy as it sounds. At the moment I see four critical areas of activity, but much more attention to this question is required:

-- What kind(s) of computer terminals/personal computers should we support for our employees? Our building now is filled with Delta Data terminals for access to the ODP mainframe and for electronic mail, and Wang systems for word processing. (We now have approximately [redacted] Delta Data and Wang terminals installed, with more coming every day. [redacted] Our goal should be perceptible movement toward one family of terminals which will: allow future growth, provide word processing and graphics capability, allow electronic mail, provide access to the ODP mainframe, and run software which local users can purchase or develop for their own needs.

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-- What can be done about the ever increasing data reduction problem we face? The pace of growth of information technology proceeds at an amazing rate. The volume of Central Dissemination System traffic (all substantive, operational and administrative cables into and out of the Agency) has more than tripled in the last five years and the rate of growth has climbed from about six percent per year in 1979 to nearly 14 percent in 1984. DO reporting [redacted] FBIS modernization become available. Obviously, we don't wish to reduce the amount of raw intelligence collected, and we may not be able to afford to build ever larger communications and information systems in order to process the glut. The answer one day will be to use information technology itself to separate the significant information from the useless residue, at every stage from collection to analysis.

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-- Computer security. We face important questions about what our policies should be, about the need for and priority of various investments, and about how we are organized to carry out programs. An Information Systems Board working group has developed an internal investment strategy in this area and I have taken steps to get some of this moving. Much remains to be done. The question of security is paramount. But I believe that, in addressing security issues, we will make progress on some other problems as well.

-- Communications within the new Headquarters building. The systems to be installed in our new building (and retrofitted to our present one) will either facilitate or inhibit the development of our future capabilities. The planning now underway, as I understand it, is sensible and sound. But the potential for a mistake which greatly limits our future options, or--more likely--which pushes us in one direction when another may be preferable, remains.

VI. Organizational Issues

Separate from the above five steps is another topic which I include with full knowledge that its mere mention will electrify a significant number of Agency managers: reorganization. My sense is that the swiftly evolving information technology capability available to us, together with the rapid and unrelenting growth of the interest and sophistication of Agency users, are slowing rendering obsolete the organizational structure within which we have traditionally managed many information technology activities.

For me, the test of whether reorganization is desirable in this area rests on the answers to four questions:

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(1) Would reorganization make it possible for us to better harness the creative energies of our best people?

(2) Would reorganization facilitate improved management control over the flow of substantive and management information?

(3) Would reorganization improve the ability of our information technology users to drive our technical decisions?

(4) Would reorganization improve the quality of our decision-making re the priority of future information technology investments?

Two of the fundamental organizational options available to us (other than the status quo) include: combining the Offices of Communications and Data Processing into a new organization (a fifth directorate) responsible for most aspects of our information technology activities, or decentralizing responsibility and authority over information technology activities to our four present line directorates, together with a redistribution of existing ODP, Communications, and other responsibilities.

Combining ODP and the Office of Communications has been talked about for years, though never thoroughly studied. Its major virtue is said to be that it would put one organization in charge of many aspects of the information technology problem. This is however, only partly true, as there would remain large centers of information technology activity outside this organization, in both the DO and the S&T. Frankly, I believe organizational centralization is yesterday's option. It flies in the face of much recent relevant corporate experience. Perhaps most important, it violates our growing sense of the importance of computer user involvement and control. It rests I think on a false assumption that computer service in the future will be like electricity--to be supplied by a utility. My belief is that much

future innovation and problem-solving capability will be the product of deeply knowledgeable people working directly with information technology tools on intelligence problems--the very antitheses of the "public utility" model.

Continuing decentralization of our information technology activity, on the other hand, seems compatible with the direction in which information technology is moving, and seems maximally supportive of user needs/desires for participation and control.

A sensible eventual goal would be to have:

- the Operations Directorate responsible for "end to end" handling of all information collected overseas and "processed" in Headquarters;

- the Science and Technology Directorate responsible for national programs support (including CAMS), and computational, modelling, and analytic capability in support of national programs, other S&T operations, and general information technology R&D for all parts of the Agency;

- the Intelligence Directorate responsible for all substantive databases and information technology services for analysts;

- the Administration Directorate responsible for all management of databases and information technology services in support of our financial, logistics, personnel, travel, and other administrative processes;

- and the Executive area responsible for information technology application for our budgeting, legislative, legal and other senior management responsibilities.

Organizationally, having the DO responsible for all overseas communications and Headquarters recordkeeping and traffic handling

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functions, suggests combining the Office of Communications' Foreign Networks Division with the DO's Information Management Staff into a new organization responsible for overseas automation (CRAFT), maintenance of the overseas communications system, and all DO Headquarters retrieval, filing and registry functions.

Making the DI responsible as above suggests eventual DI management of the existing ODP Northside Center, of all DI computer operations including the SAFE program and related data bases, and of DESIST and other future stand-alone production databases, the Headquarters printing facility, and the future world of electronic dissemination of finished product. Of course such a step couldn't be taken overnight, but there is no fundamental reason why the DI shouldn't ultimately assume full responsibility for the design, operation and maintenance of its own computer facility, and for the terminal networks to access that facility.

Organizationally, after taking these two steps, there remain a 25X1 very important Office of Communications component [redacted]

25X1 [redacted]

25X1 [redacted] those portions of our Office of Data Processing responsible for CAMS and for those ODP systems devoted to DDA administrative functions like finance, personnel, logistics, and others, as well as Headquarters computer operations.

Continuing the restructuring, responsibility for management of CAMS is relatively easily moved to the S&T Directorate. Combining the 25X1 balance of ODP with the [redacted] Office of Communications would be a sensible immediate move in the direction of a redesigned DDA component responsible for management of all our administrative systems. The function of OC's important communications security and engineering organizations would necessarily be combined into the Directorate-based components as appropriate. This would also

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be a sensible time to consider merging the communications and computer security functions, now separately resident in OC and the Office of Security.

Taken together, such a reorganization could:

- recognize the fundamental character of the evolving information technology revolution by positioning the DO, the DI, and the S&T to design, manage, and seek resources for all aspects of the information technology systems they require to accomplish their missions, while focusing the DDA role in information technology on support of its mission responsibilities;

- more clearly illuminate future information technology investment decisions by forcing line attention to the alternatives available in a mission-related context (for example, the DDI would consider information technology investments in the context of all the other investments he now considers);

- facilitate user involvement and control of all aspects of our information technology investment and, ultimately,

- improve our ability to challenge our best people by making them more nearly part of team efforts to accomplish mission-related goals.

15 January 1985

NOTE FOR: DDCI

FROM: DCI

SUBJECT: [redacted] 7-8 January 1985 STAT

Here are some notes I did on the off-site conference which supplement yours.

Should this material be circulated to the others and how should we make sure the notes are followed through?

William J. Casey

Attachment

25X1

[redacted] Conference Notes
7-8 January 1985

Information Technology

On information technology, what needs to be done? It seems to me that a necessary starting point is some kind of an inventory and overview of what we have in hand, things like the following:

- A menu of data bases on hand, in development, accessible to us from other sources inside and outside government.

- A menu of the computer capabilities available.

- What uses of artificial intelligence have we in operation, i.e., psychological assessments, others?

- What uses are under study or development--what other uses can be perceived as likely or available?

25X1 [redacted]

These are the hard factual kinds of data which would help us think about how we can get on top of information and technology.

My gut reaction out of the conference was that there is a need for loose central guidance, DDA should continue to operate a main frame and a service of common concern. That should be an experienced man with a small staff in the Director's office to look at the overall system, evaluate and plan ahead, facilitate the work of each of the divisions in meeting their needs, draw on and use the Director's authority to speed things up, establish or shift priorities, resolve budget issues, reallocate assets as need indicates, watch computer security and see that the proper central control, direction and handling is established and maintained. This role should be played by somebody who knows the organization and its requirements and is knowledgeable in the computer and information area--someone like [redacted] 25X1
Donnelly, [redacted] This group would have to set a fast pace in 25X1
rapid, intense, highly focused work to see where we are and where we should be going in this area and to see that the seven people who were at the meeting
25X1 [redacted] are actively engaged and participating in the overall process as well as directing the follow-through in their divisions.

Personnel

On personnel, we need more imagination, versatility, targeted effort. Try use of headhunters. Develop special pay for computer specialty and other hard to find qualities. Organize and run continuing efforts to get employee and alumni suggestions on likely recruits.

Languages

On languages, demand and make arrangements for greater language training for all case officers. We will consider increasing payments for the maintenance of language on the part of case officers but not for those who are not required to attend language school to handle a specialty for which they were brought in and where daily work forces them to maintain the language. We must narrow the margin between the language capabilities and preparation which the KGB has and our own. Work on recruiting from ethnic groups, likely to have the language or a good start on the language, notably Hispanics and Slavs in this country. Develop a program to make use of employees who are alumni of colleges as referents to develop career interest in students attending those colleges.

Public Image Problem

Respond to more egregious stories in the media--develop continuing program to amplify and encourage our supporters and show the positive side of the Agency. We will not put out a lot of unclassified research, but we will put out information through speeches and otherwise on those activities which are widely known, where there are no security considerations and which justify our existence and require our talent and effort. Subjects like Soviet active measures, technology transfer, modernization of the Third World, terrorism, Soviet activities in the Third World, outlook for the Third World by the end of the century covering subjects like water resources, population, etc. Use this material on campuses in recruiting and to encourage 25X1 support [redacted] from the business world, etc. Some of this would be put out under our own name, others, like terrorism and arms sales, with the State Department, tech transfer perhaps with Commerce or Defense.

Next 3 Page(s) In Document Denied

25 January 1985

NOTE FOR: DDA
DDI
DDO
DDS&T

FROM : ExDir

25X1 SUBJECT : [redacted] Notes, 7-8 Jan 85

25X1 Combining the DCI and DDCI's list of items we agreed to work on at [redacted] conference produces the following. I don't think there should be any surprises here.

25X1 -- DCI asks for a kind of inventory of our computer equipment and capabilities. Action: [redacted]

25X1 -- Consider some front office staff entity which will provide loose central guidance to the information technology world. Action: [redacted]

-- Consider using headhunters to recruit new people. Action: Fitzwater.

-- Develop special pay for computer specialized people. Action: Fitzwater.

-- Organize and run continuing program to get employee and alumni suggestions on likely recruits. Action: Fitzwater.

-- Get serious about keeping people in language training for the full course. Action: George, with help from Fitzwater.

-- Work to increase the payments in our language maintenance and instruction programs. Fitzwater should bring a proposal to the Executive Committee for discussion and decision.

-- Continue to make public information (through speeches and otherwise) on those Agency activities which are already widely known, where there are no security considerations, and which tend to justify our existence and require our talent and effort. Action: Gates.

25X1 [redacted]

-- Get the computer terminal installation program better organized (should fall out of the consolidation of DND with ODP). Action: Fitzwater.

25X1

ROUTING AND RECORD SHEET

SUBJECT: (Optional)

STAT Action Items Resulting from [redacted] Conference on 7/8 January 1985 [redacted] STAT

FROM:	EXTENSION	NO.
Harry E. Fitzwater Deputy Director for Administration 7D 24 Hqs		DDA 85-0040/5 DATE 16 January 1985

TO: (Officer designation, room number, and building)	DATE RECEIVED	DATE FORWARDED	OFFICER'S INITIALS	COMMENTS (Number each comment to show from whom to whom. Draw a line across column after each comment.)
1. Director of Central Intelligence	16 Jan.	17 JAN 1985	C	
2. 7D 5607 Hqs				
3. DDA				
4.				
5.				
6.				
7.				
8.				
9.				
10.				
11.				
12.				
13.				
14.				
15.				

Godfrey

STAT [redacted]

DCI EXEC REG

FORM 1-79 610 USE PREVIOUS EDITIONS

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DDA 85-0040/5

16 January 1985

MEMORANDUM FOR: Director of Central Intelligence

FROM: Harry E. Fitzwater
Deputy Director for Administration

25X1 SUBJECT: Action Items Resulting from [redacted] Conference
25X1 on 7/8 January 1985 [redacted]

25X1 1. During our meeting [redacted] several issues were discussed that I consider to be my responsibility for action. Consequently, I have assigned the action for implementation or study to the appropriate Offices within the Directorate of Administration. This memorandum is for your information but in the event I have missed something that should be
25X1 addressed by this Directorate, please let me know. [redacted]

2. The following actions are being taken relative to the issues discussed:

25X1 a. I have asked the Director of Personnel (D/OP) and the Director of Training and Education (D/OTE) to work together in selecting a high visibility and articulate officer who would have access to both the training and recruitment programs. This person should devote his/her time to visiting campuses, staying in touch with people in academia, and helping to bring together our recruitment mechanism and academia. This individual should help sell the Agency and the challenge that a career in CIA offers. Also, OP and OTE are working to determine how we can better the image of training provided to our employees which may help in our recruitment program. [redacted]

The D/OP is looking at an assignment of a high visibility Agency officer to work with industry and our recruiters similar to the one working with academia.

25X1 Additionally, we are proposing to assign an officer to the School of Foreign Service at Georgetown University. State has a Foreign Service careerist currently assigned to the School. We will look at placing officers in other universities if the Georgetown effort proves worthwhile. [redacted]

25X1

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b. At the Conference, the DDI made the statement with which we firmly agree--that the D/OTE is desperately understaffed for teaching information science. I have asked the D/OTE to give me some alternatives for staff-type personnel. It is doubtful that we can find the slots or the people to get an early solution to this problem but we may be able to use contractors or some other innovation.

c. I have asked the Chairman of the Language Development Committee and the D/OTE to establish a system by which we will pay award fees, for both maintenance and achievement of new languages, in accordance with State's award fee system. This is supposed to be applied particularly to the Directorate of Operations personnel.

d. I have notified the D/OTE that the DDO has agreed to leave students in language training for the advertised length of study. We will keep an eye on the developments of this new DO policy and work with the DDO in case this directive is being violated.

e. I have asked the D/OP to determine from the Office of General Counsel whether we can legally use an employment organization to help in our recruitment of new employees. Our initial look indicates that there may be some type of legal restriction on federal agencies using "head hunters." If we find that it is legally permissible, then I have directed that the D/OP contract with a firm on an experimental basis to see if it works, and, if so, we will expand to other firms.

f. I have asked the D/OP to provide to the DDI statistics on the sources of his new employees. If you will recall, I noted that there were four categories (i.e., write-in or call-in to recruiters, campus, advertising, and employee referrals) which historically produced the major portion of our new recruits.

25X1

g. I have asked the D/OP to post CIA employees' names with placement officers at universities at which they are alumni. This, of course, must be with the approval of the employee

25X1

The idea behind this is to permit the students to contact our employees and establish a one-on-one relationship which may lead to the student's employment.

h. The D/OP has been directed to provide me with a proposal for new categories of hard-to-get personnel who should be considered for special pay. Of particular interest are people in information science.

i. The D/OP is to provide me with a proposal for paying tuition for selected individuals in graduate programs. These individuals would be legally bound to a certain period of employment by the Agency.

j. The D/OP is to work with the D/OTE in looking at the feasibility of a "Brookings-type" seminar for Executive Officers from Fortune 500 companies. At these seminars we would emphasize our desire to recruit top-grade personnel.

k. I have directed the D/OP to provide me with a proposal for paying premium pay to lower-graded DO officers overseas to compensate them for the long hours they work without receiving overtime pay. I will ensure that any proposal will be thoroughly staffed wih the DDO.

l. You will recall a complaint about the lack of a single organization to handle the installation of computer terminals.
25X1 Although we are installing [redacted] terminals a month, which is quite a feat in itself, I agree that we can do better organizationally in the handling of these installations. As you have been
25X1 advised, I am combining [redacted] Office of Communications with the Office of Data Processing and have asked that this organization have a single point of contact for all installation of terminals and word processors.

m. In accordance with your concern to "accelerate the tempo and move it--get it done," I have asked that all Offices put greater emphasis on this mind-set. Also, I have passed along your desire to stimulate initiative and creativity.

25X1 [redacted]

3. If I have missed anything, please let me know and I will take action on it immediately. I will also keep you advised on the results of
25X1 any of the studies relative to these action items. [redacted]
25X1 [redacted]

Harry E. Fitzwater

cc: DDCI
EXDIR

25X1 DDA/HEFitzwater:kmg [redacted] (16Jan85)
Distribution:
Orig - DCI
1 - DDCI
1 - EXDIR
1 - ER
1 - DDA Subj
1 - DDA Chrono
1 - HEF Chrono