Office of Information Services

Agency Long-Range Planning
Phase IV - Support Capabilities

I. EXECUTIVE SUMMARY

The Agency faces a serious and increasing problem during the coming decade. Advancements in technology and an increase in personnel will greatly increase the collection of intelligence data. This data must be efficiently managed to produce the maximum value from the information available.

Congressional oversight committees during the 1970's recommended that the Agency's records management be improved. In 1980, the Office of Information Services was organized and records management specialists were formed into a new career sub-group. This was followed by emphasis on professional development and a plan was devised to aid career development.

To further enhance the Agency's records management, computer programs were developed to assist in tracking intelligence data and material. As work progressed on these earlier programs, it became obvious that files and data were growing at a rapid rate and would continue to do so throughout the Agency. In 1981, development of The Records Information System (TRIS) was begun. TRIS will be an Agency-wide network of subsystems which by 1987 will permit a broad exchange of data among many components in the Agency within appropriate security restraints. Plans are to design the system with features that permit modular improvements to be incorporated as technological advances become available.

Additional capabilities will be required to handle the increased data collected and to operate the electronic mail and automated information handling systems which will be in use by the end of the decade. Registries will be smaller, with fewer mail clerks and couriers, and will function as satellites feeding into and communicating with a centrally administered data base. Records control schedules will be categorized and standardized throughout the Agency for consistent maintenance and disposition. Clerical personnel operating the system will be more highly trained than in the past and the duties performed will be less easily distinguished from those of the professional than in the past. New recruiting guidelines will be required and new training to update current employee skills will be necessary.

New procedures and facilities for storing electronic records will be necessary. Programs are currently underway to design and test electronic mail systems but thousands of manhours will be required to expand information handling capabilities beyond this stage. One of the most important criteria in producing such systems is to assure that those responsible for the final results are given the authority to establish the parameters for its design and development.

Predictions are that the overall work of the Agency will expand and the number of personnel will increase accordingly. Support functions usually increase proportionally and the fields of records management and regulations control are no exceptions. Additional financial resources will be required to procure the sophisticated automated systems necessary to support intelligence analysis, word processing, electronic mail, and computerized information storage and retrieval. Planning to attain these capabilities must begin in FY 83 and must be dynamic and progressive.

II. OVERVIEW

A. Major Concerns Over Past Several Years

1. During the 1970's, the Agency underwent a period of serious review by several Congressional oversight committees. This review emphasized the need to improve the management of information and to comply with statutory regulations concerning the creation, use, scheduling, disposition, release, classification/declassification, and destruction of Agency records.

2. To achieve this, the Office of Information Services (OIS) was created in 1980. Negotiations were undertaken with the other directorates to cede control of their records management positions to OIS. Plans were made to give personnel from various components throughout the Agency the opportunity to join the OIS MI Career Sub-Group. As a result, many of the Agency's information handling and management positions were incorporated into this Career Sub-Group.

3. Once the MI Career Sub-Group was established, considerable time was devoted to the professional development of MI careerists. Many people had been in their current assignments for an extended period of time and efforts were expended to develop training profiles for MI careerists. In addition, it was necessary to provide MI careerists with a career ladder and numerous reassignments were made.

4. OIS has been involved in developing several computerized records accounting systems (in module form), such as those used in control and retrieval of retired records in the Records Center (ARCINS and RAMS); those used to record and control security classification (DARE, DECAL, and TSCADS); one used to control forms and reports (FARMS); and one used to control and account for Freedom of Information Act and Privacy Act requests (IPS-LOG).

5. Effort also was devoted to coping with and seeking relief from the requirements of the Freedom of Information Act and the revision of Executive Order 12065.

B. Current Major Issues

1. The Records Information System (TRIS)

a. In 1981, OIS began to develop The Records Information System (TRIS). This system is planned to be a single Agency-wide computer-based, interoperable records accounting system to provide more effective records control. TRIS will be

designed as a network of subsystems--some supporting the information needs of a single component and others maintaining central data bases for the use of all participating components. TRIS will integrate all subsystems in a way that facilitates standardized records accounting practices and allows an uninhibited exchange of data within security constraints.

b. Technological obsolescence poses a serious threat to information systems that take years to design, coordinate, approve, and implement. Future systems must take into account technological advances that will occur by the time the system becomes operational. Several areas of technological improvement are quite predictable already. Two of the more obvious ones are computer processing speed and computer mass storage devices. Other forecasts can be based upon what is on today's drawing boards in the private sector, such as voice input systems. (Threshold Technologies, Delran, New Jersey, produces voice equipment that is already carried on the GSA schedule.) The development cycle for the TRIS records accounting system projects implementation in 1987 and, therefore, has the potential of falling into the technological obsolescence arena.

2. Records Control Schedules

Records control schedules are being revised to standardize maintenance and disposition of records common to all components. This revision process will ensure that common records within Agency components will be administered in a like manner, i.e., a policy file in a DDI office and a policy file in a DDA office each will have the same records schedule item number and the same disposition instructions. Organizing schedules in this manner will avoid having a common series of records retained for different periods of time in different parts of the Agency. This process eventually will produce a consolidated Agency records control schedule.

C. The Future

1. Automated Systems

a. There is a need to develop and refine a single Agency-wide automated records accounting system. This system would replace existing OIS records accounting/tracking subsystems already being used in the Agency.

b. The Agency-wide system must also be able to synthesize data from existing automated registry systems plus those being

designed within the concept set forth in the Common-Use Automated Registry System (CARS) Task Force paper. These stand-alone systems are expected to be on line within the next 3 to 5 years and will form the basis for the Agency's consolidated records accounting system.

c. Action must be taken to acquire a uniform system query language, using plain English. These user friendly query languages are available commercially and would permit users at any level to gain access to the system with a minimum of computer training.

d. The task of managing automated records systems will be greatly complicated by emerging electronic mail systems. One such system, built by and for the Office of Development and Engineering (OD&E), DDS&T, is already operational between OD&E components and a contractor facility located outside the Washington area. A pilot electronic mail system called the Automated Information Management System (AIMS) is being tested by the Office of Data Processing (ODP). To assure the effective design of an automated system such as AIMS, those responsible for management of the Agency's records (OIS) must be included in the development phase of the systems.

e. Data management planning to provide for the orderly disposition of electronic data is vital. Development of such a plan for all future automated information systems will alleviate the massive problem we face today--the retention of extensive collections of unscheduled electronic data. Thousands of manhours will be required to prepare records schedules for this electronic data. The volume of Agency electronic data is estimated to be in excess of 2 billion pages. In the future, expert systems resulting from rapid advancement in artificial intelligence research will be used in the disposition scheduling of electronic data.

2. Information Management

a. Management guidance and direction must come from a centralized control in the Agency in order to provide a cohesive and consistent set of rules and regulations governing information in electronic format, as well as paper records. These procedures will define timing and the criteria for application across the board. Standards for information handling will be developed in a top-down manner by a senior data base administrator. They will be reconciled with available Government-wide standards to ensure a coherent non-duplicative set of guidance documents.

b. Periodic audits will be conducted every 2 to 4 years to ensure compliance with these standards. This will require skilled professionals, experienced in records audit and survey techniques, to monitor compliance with the established policies and standards. Once all systems are automated, they will be constantly reviewed by data base administrators.

3. Archiving and Vital Records

a. The increased volumes of information/records in electronic data format will require an archival system to be developed to handle that new media. The system should be able to accept electronic information directly from the originator and be capable of retrieving the information in electronic format. The development of this system should include a vital records program as an additional task of the overall computer program, thus saving considerable time, space, and money by having compatibility built into the initial design.

b. Additional improvement in archival systems is possible by the use of optical disks for long-term storage of data. This is a significant achievement since it does not require the maintenance associated with magnetic tapes and requires considerably less space. Technological advances have made it possible to record on pregrooved optical tellurium-based semimetal disks with laser diodes, thus reducing the cost of digital data recording, increasing the density of data storage, and improving the capability of retrieving specific subject matter.

c. Improved procedures will be coupled with the advanced systems. Universal archiving is possible for use throughout the Agency with a system for tagging a document so that it will have a single identification code which will be retained throughout the life of the document. The procedure for assigning the code will be standard with each component having a unique identification. This will greatly enhance the tracking and retrieval of documents in electronic format.

4. Development Within OIS

To obtain and maintain the most effective records management program, continued internal development across the board must be undertaken. Major areas requiring attention are:

a. The recruitment of individuals with information management backgrounds attained through education, experience, or both.

b. Increased professional development of current MI careerists. An initial training course (Orientation to Automated Records Systems) specifically designed to expose MI careerists to automated information management has been completed. More advanced internal training courses are in the development cycle. MI careerists also will need exposure to external information management training courses and professional society activities.

c. A restructured working environment for information handling personnel. The concept of all data managers having a workstation centered around a computer terminal which is linked to the records accounting data bases as well as a centralized computer base must become a reality. These workstations will be upgraded periodically as technology evolves.

d. As the group of records managers expands, additional office space will be required. Major efforts must be devoted to maintaining the OIS divisions as complete physical working units rather than as separated units which now exist.

e. Keeping abreast of technological advances is vital to the continued function of a records management program. The information explosion will force rapid change in information management activities, and we must change to keep pace.

5. Potential Problem Areas

a. Centralized records management will be established with appropriate authority to mandate compliance with directives issued by OIS to fulfill its mission of managing the Agency's records programs.

b. OIS will require additional resources (funds, personnel, space, and equipment) to keep abreast of the increased volumes of information/records, especially electronic data format. In conjunction, these resources should include provisions for a new archival/vital records facility to accommodate electronic information storage and retrieval activities.

c. The recruitment and retention of qualified personnel will be a continuing problem.

d. The anticipated increase of information in electronic format and maintaining adequate security and compartmentation for such information will be another problem. A potential problem will also exist with the conversion of information in paper and electronic form to new information storage media. The

conversion of paper records is now possible through the use of optical character readers (OCRs). This OCR process converts the typed characters to digital form but is limited to a number of specific type fonts.

e. Omni-font optical character readers, such as the Kurzwell Data Entry Machine (KDEM), are now commercially available. The KDEM can be used to convert any good quality typed or printed material to digital form at a rate about ten times as fast as keyboard data entry. The main problems encountered are with the poor quality of much of the filed documents.

f. The conversion of electronic information can easily be accomplished if it is done soon after recording. Information in magnetic form may not be convertible after a few years because of the instability of the holding medium. Another major problem affecting conversion involves the evolutionary changes in equipment and software. Advances in technology cause the equipment used to record and process the data to become obsolete and thus no longer available. The programs used to process the data also become obsolete and frequently unavailable. Therefore, even though the data may be available and intact in the original holding medium, connecting it into new formats becomes difficult and expensive.

g. There will be the need to accommodate the projected increases of information in electronic format to provide adequate security protection with the new technology coming on line. Also, a potential problem may exist with the conversion of current data into new generation data format.

h. OIS must have authority (on behalf of the DDA) to specify Agency-wide policies and procedures for data standards to ensure an orderly progression from today's operation to an Agency-wide records accounting/tracking system.

i. A change in Administration in the 1984 or 1988 election years may precipitate a revision of the Executive order which permitted the Agency to halt its internal systematic classification review activities. If the requirement for this review is reinstated, at least 18 additional employees would be required to restaff the review office at the minimum level originally approved to conduct centralized systematic review.

III. THE PHASE II PLANNING PAPERS

The workload and responsibilities of OIS are proportionately dependent on new initiatives undertaken by other Agency directorates. A substantial increase in resources (funds, personnel, space, and equipment) will be required during the next 10 years in order to keep abreast of increased records management/accounting functions that will be generated by the new endeavors projected by other Agency components. As more information systems are automated and users see the results of this automation, they will demand both higher-quality data and improved systems responsiveness.

The importance of the efficient management of information, whether it be old records, new records, or regulations and guidelines, has not been understood and supported by the majority of managers in the Agency in the past. Congressional studies recently have pointed to the need to improve our information management throughout the cycle, from the creation of a document to its final disposition whether that be permanent storage or destruction.

The change of the old image of a registry is necessary as the age of electronic mail and other automated office systems insert themselves into the routine way of doing business. We must "reconceptualize" (as John Naisbitt, noted author on trends in American society, says) our registries and the personnel that operate them in response to the trends. An automobile rust-proofing shop may have been adequate a few years back, but today to satisfy trends in customer desires, it may be called "The Car Preservation Center." The analogy is that the registry of today must change in response to customer desires and to the trends in information handling systems. The "reconceptualization" will occur as registries become highly automated, as the clerical personnel operating them become more highly trained, and as there occurs a greater blurring of skills between clerical and managerial functions.

As the Agency's collection capability increases, the importance of the Agency becoming more and more an information-based organization is now apparent. The information collected is not worthwhile if it is not used. The efficient management of this information is of utmost importance.

Naisbitt says in his book, Megatrends: Ten New Directions Transforming Our Lives, that "technology development advances rapidly and, in general, well in advance of the willingness of many to adapt comfortably to it." This is a challenge we face: in utilizing advanced electronic information and mail systems available even now; in enhancing the skills of assigned personnel through imaginative training; in convincing management of the high priorities that must be assigned to obtain the funds to procure the advanced equipment; in the necessity of obtaining qualified professional personnel to operate the systems; and in organizing records management within the Agency into a single, centralized organization which applies standardized procedures to control the flow of documents and data in whatever format.

With the current limitations on available qualified personnel to design and develop the needed automated system, expert consultants should be hired to supply their state-of-the-art knowledge to articulate the program which is feasible for the next decade and to begin the system design. The goal for 1992 would be an integrated, automated information system which would utilize artificial intelligence for making routine decisions and routing traffic. It would work under a central management control using data base administrators and systems analysts/trouble-shooters, and would replace mail clerks and couriers in decentralized component locations by using terminals operated by information analysts. These decentralized terminals would have a built-in, but limited, processing capability and the necessary hardware redundancy to provide the needed reliability. Encryption would also be provided before the data is transmitted to the data base thus providing added security to the stored file.

A model system should be installed and tested in the same manner as the current test program being operated with a completely automated overseas field station. As the confidence in the system grows, it should be expanded to meet the overall Agency needs and constantly updated with technological advancements as fast as the personnel and monetary resources permit. The initial design, as well as the operational progress and benefits, must be coordinated with all users of the system whether they be connected with an analyst, registry, or archival function. In addition to increased efficiency, because of speed, accuracy, and security protection, morale will be improved because of the elimination of labor-intensive handling which in turn leads to a perception of less meniality in the tasks, thus increasing more professionalism in the ranks.

As the Agency increases the capability of collecting information and increases the number of persons involved in collecting data, OIS will have the following alternatives: (1) establish an automated network of systems to control and account for information as envisioned in TRIS; (2) obtain a commercial contract for the design, installation, and operation of an integrated function, automated handling, information management system; (3) establish in a limited, non-interoperative manner an automated system, such as CARS; or (4) attempt to cope with this increase by hiring additional personnel to continue the current labor-intensive procedures.

Graphic capabilities will be in common use within 5 years and by 1992 video conferencing should be economical and with an additional saving realized through less time away from the office and lower TDY travel costs.

IV. RESOURCE REQUIREMENTS

To provide the capabilities believed necessary to meet the challenges for an Agency-wide information/records management system in the 1990's, specific requirements must be met. These consist of:

1. A task force (consisting of Agency personnel, experienced and successful systems contract personnel, or an appropriate mix of the two) organized to design an automated records accounting system flexible enough to improve and grow through a transition stage into the 1990's. Performance should be maintained at a near state-of-the-art capability by selectively replacing modular sections to upgrade system performance.

2. Adequate funds to build, install, and operate the initial system on a test scale so that the validity of the original plans can be ascertained and the cost of the complete system can be extrapolated. The funding requirements for TRIS are estimated by ODP to be in the $7 million range. TRIS is simply an automated and integrated records accounting system which should be fully operational in 5 to 7 years. A full-blown universal terminal network with access to file data in all parts of the Intelligence Community could increase funding needs as much as tenfold.

3. Assembly of a faculty and production of a training syllabus to begin retraining clerical personnel for the transition from typewriter production to computer terminal processing. This is probably an Office of Training and Education support requirement.

4. Improved guidelines for recruiting clerical personnel with experience in needed automation skills or aptitude for utilizing automated records information systems. Desirable skills are high or improvable verbal, numerical, and administrative capabilities.

5. Approximately [ ] additional people by 1992 for a total of [ ] MI Career Sub-Group personnel. If the number of persons who collect, analyze, and produce intelligence increases by one-third, the number of information handling personnel required to manage this data will need to increase accordingly. STAT

6. A new Archives and Records Center facility devoted exclusively to the requirements of digital data preservation and storage. The center should be underground, climate-controlled, and located in a sparsely populated area, making full use of technological advances. The location would be coordinated with the National Intelligence Emergency Support Office (NIESO) to include emergency relocation planning considerations. Plans to acquire property should be in progress now with the possibility of utilizing Government facilities that are being deactivated [ ] or additional STAT

property contiguous to the Federal Preparedness Agency near Bluemont, Virginia. An alternate solution would be to plan, in conjunction with NIESO, a Federal Data Storage Facility which would be located away from the metropolitan Washington area. CIA and the Intelligence Community should be allocated a portion of this facility which could be shared with other Federal agencies.