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AUTOMATED INFORMATION SYSTEMS
PLAN

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Executive Summary

AUTOMATED INFORMATION SYSTEMS PLAN

This Automated Information Systems (AIS) Plan for the Directorate for Automation Support and Technology (AS&T) has been prepared for the Office of the Assistant Secretary of Defense (Production and Logistics) [OASD(P&L)]. It contains a systematic approach for allocating automated data processing resources to support the functional and management activities of the OASD(P&L) staff.

We present the plan in six sections, one corresponding to each major OASD(P&L) AIS objective. In each of the six sections, we discuss AS&T's accomplishments in FY89 and its plans for FY90. Three appendices provide summaries of the user survey conducted in FY89, OASD(P&L) requirements identified from the needs survey, and offices for which security plans have been written.

Among the accomplishments and goals discussed in this plan, the following are particularly significant:

- *Improvement of contractor support.* Electronic Data Systems, Inc. (EDS) was awarded a contract in FY87 to install and maintain the Office Automation and Communication System (OACS). The statement of work in that contract was vague in defining EDS' responsibilities. In December 1988, AS&T, with assistance from other OSD offices, wrote a new statement of work that required the delivery of additional EDS services and products — an on-line inventory of all OACS equipment; capacity and performance planning; improvements in maintenance services; a new design, installation, and acceptance process; configuration change authority: and an on-line bulletin board containing helpful information for all OACS users.

- *Completion of user and needs surveys.* In FY89, AS&T conducted two surveys of OASD(P&L) personnel. A user survey was sent to approximately 25 percent of the staff asking detailed questions about Acquisition and Logistics Information System (ALIS) software capabilities and services provided by AS&T and EDS. Based on the survey responses, AS&T was able to identify problem areas and take corrective action. A needs survey was also conducted to determine OASD(P&L)'s short- and long-term automation needs. The survey responses were a significant input to the development of this AIS plan and to setting FY89 and FY90 priorities.

- *On-line access to external systems and networks.* Analysts in OASD(P&L) require access to information and communication capabilities from several remote systems and networks. In FY89, AS&T provided access to the Defense Data Network; established a method for OASD(P&L) and the Office of the DoD Inspector General to exchange documents on magnetic media; established OASD(P&L) user accounts on the Defense Gateway Information System; and submitted a request for access to "Washington Alert," a commercial on-line service providing congressional data. In addition, AS&T installed communication equipment with which OASD(P&L) staff can exchange data with external systems.

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INTRODUCTION

This Automated Information Systems (AIS) Plan for the Directorate for Automation Support and Technology (AS&T) has been prepared for the Office of the Assistant Secretary of Defense (Production and Logistics) [OASD(P&L)]. It constitutes a rational approach to the allocation of automated data processing (ADP) resources in support of the functional and management activities of the P&L staff. The plan describes AS&T's FY89 AIS accomplishments and prescribes its FY90 plans.

We present the plan in six sections, one corresponding to each major AS&T objective. In each section, we discuss AS&T's accomplishments in FY89 and plans for FY90. Three appendices provide supporting information about the user survey conducted in FY89, P&L requirements identified from the needs survey, and offices for which security plans have been written.

This format supports the Director, Support and Information Technology, in maintaining cognizance of ongoing AIS activities and allocating resources among competing activities. It also provides a ready reference for all P&L staff interested in AIS efforts.

In Table 1, we present an overview of the plan's contents. The "AIS Objectives," presented in the first column, constitute the major sections of the plan; the "FY89 Accomplishments" and "FY90 Plans" constitute subsections.

TABLE 1

OASD(P&L) AIS PLAN OUTLINE

AIS objectives		FY89 accomplishments		FY90 plans
1	Connectivity and data exchange with external systems and organizations	a.	Access to Defense Data Network (1) Initial users (2) OACS on Defense Data Network	f	DLANET through DGIS
		b.	Interface established with DoD Inspector General and General Accounting Office	g	Central network control and central management system
		c.	Access to congressional data (Washington Alert)	h	Customized scripts on DGIS (for log-on and retrieval from remote systems)
		d.	Easy access to databases via PC-attached modem (+ h)	i	Access to additional remote systems (1) FYDP and PBD data (2) Acquisition regulations on-line (3) Interoperability Decision Support System
		e.	Access to Acquisition Management and Information System		
2	User support and enhanced operations	a.	Expansion and enhancement of user base to management support activities (+ k.)	j	Expansion of user base to all of P&L
		b.	Completion of User Survey (+ m.)	l.	Completion of plan
		c	Completion of Needs Survey (+ l.)	m.	Improvements to training and response to specific problems
		d.	Reduction of incompatible equipment (+ n)	n.	Complete removal of incompatible equipment
		e.	Forms availability	o.	Administrative software support (1) Directorate suspense system (2) Appointment calendar (3) P&L-wide phone directory
		f.	Establishment of system administrators		
		g	Remote access to ALIS		
		h.	Elimination of MULTICS site		

Notes: " + " indicates a corresponding FY90 plan and the letter in parentheses indicates the goal. ALIS – Acquisition and Logistics Information System, CCA – configuration change authority, CD ROM – compact disc-read only memory, DGIS – Defense Gateway Information System, DLANET – Defense Logistics Agency Network, EDS – Electronic Data Systems, Inc., FAR – Federal Acquisition Regulation, FYDP – Five Year Defense Plan, MS DOS = Microsoft Disk Operating System, OACS = Office Automation and Communication System, OASD(C)/DSS – Office of the Assistant Secretary of Defense (Comptroller)/Directorate for Systems and Services, OUSD(A) – Office of the Under Secretary of Defense (Acquisition), PBD – Program Budget Decision, PC – personal computer

TABLE 1

OASD(P&L) AIS PLAN OUTLINE (Continued)

	AIS objectives	FY89 accomplishments	FY90 plans

2	User support and enhanced operations (continued)	i. Improvement of EDS services
		  (1) On-line inventory
		  (2) Capacity planning
		  (3) Maintenance improvements
		  (4) Design, installation, and acceptance process
		  (5) Configuration management and CCA
		  (6) Bulletin board
		  (7) Archiving and backup
		j. Means to test new software
			p. Standard P&L menu system for ALIS
			q. Independent audit of the OACS system

3	Cooperative OSD efforts	a. Xerox/OACS interface established (+ e.) b. Optical disk: stand-alone demonstration system installed (+ f.) c. ADP budget integrated to OUSD(A) (+ g.) d. Administrative Instruction 56 and Major Automated Information System Review Council guidelines (+ i.)	e. Simplify Xerox/OACS interface f. Optical disk: integrated with OACS/ deputate-wide system g. Expand budget automation to OASD(C)/DSS h. Improve P&L/DSS/OSD relations i. Assist in development of OSD office automation program
4	Hardware/software selection and procurement	a. Laptop PCs (286s) (+ h.) b. Facsimile machines (+ i.) c. Presentation equipment d. Additional call-back modems	h. Laptop PCs (386s) i. Facsimile cards for personal computers j. CD-ROM memory drives k. 19-inch monitors for desktop publishing

Notes: " + " indicates a corresponding FY90 plan and the letter ( ) parentheses indicates the goal. ALIS = Acquisition and Logistics Information System, CCA = configuration change-authority, CD ROM = compact disc read-only memory, DGIS – Defense Gateway Information System, DLANET – Defense Logistics Agency Network; EDS – Electronic Data Systems, Inc., FAR = Federal Acquisition Regulation, FYDP = Five Year Defense Plan, MS DOS = Microsoft Disk Operating System, OACS = Office Automation and Communication System, OASD(C)/DSS = Office of the Assistant Secretary of Defense (Comptroller)/Directorate for Systems and Services; OUSD(A) = Office of the Under Secretary of Defense (Acquisition), PBD – Program Budget Decision; PC = personal computer

TABLE 1

OASD(P&L) AIS PLAN OUTLINE (Continued)

AIS objectives	FY89 accomplishments	FY90 plans
4 Hardware/software selection and procurement (continued)	e MS-DOS software (+ n) f FAR development system g Improved DOS/UNIX interface	l Color printing m Scanners compatible with ALIS to scan images and text n. Site licenses for MS-DOS software o. Acquisition of remaining OACS equipment p Improved import/export from ALIS to other software
5 Development and conversion of applications	a. Defense Energy Information System (+ f.) b Base Structure Annex c Budget system d Gold Card e Defense Support Analysis Information System	f Conversion/redesign of the Defense Energy Information System g. Decision support systems h. Specific application development
6 System security and integrity	a Completed security plans for stand-alone classified processing b Installed stand-alone systems (286s) c. Initial security policy for nonclassified sites (network processing)	d Prepare additional security plans e. Upgrade 286s to 386s for stand-alone classified ALIS processing f Risk analysis, including a continuity of operations plan

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OBJECTIVE #1. CONNECTIVITY AND DATA EXCHANGE WITH EXTERNAL SYSTEMS AND ORGANIZATIONS

FY89 ACCOMPLISHMENTS

a. Access to Defense Data Network

(1) Initial Users

In the user survey conducted in early FY89, several members of the P&L staff indicated that they required access to the Defense Data Network (DDN) primarily for sending and receiving electronic mail to and from other DDN users. A few users have now been provided access to DDN via the Defense Gateway Information System (DGIS). They can log on to DGIS [from the Office Automation and Communication System (OACS) or from a stand-alone personal computer (PC)] and use DGIS electronic mail to send and receive messages from anyone on the DDN.

Other DDN features, such as transmitting and downloading files, require formal DDN registration. In late FY89, we plan to register approximately a dozen users on DGIS and DDN.

(2) Office Automation and Communication System on DDN

By the end of FY89, OACS will be made a host on DDN. To do so will require that all OACS user addresses comply with the DDN standard. The change will enable users to utilize all DDN functions rather than merely electronic mail as on DGIS. A task order is being established with Control Data Corporation (CDC) to change the addresses with the help of Electronic Data Systems, Inc. (EDS). The OSD network manager in the Directorate for Systems and Services (DSS) will manage the effort.

b. Interface Established with DoD Inspector General and General Accounting Office

The P&L staff must frequently respond to DoD Inspector General (IG) inquiries. Until this year, all such replies were prepared and submitted on paper. Because

several iterations of the replies would shuttle between P&L and the IG, considerable typing and retyping was often required.

Earlier this year, after a series of meetings, the two offices agreed upon a procedure for exchanging replies in electronic form. That procedure entails sending floppy disks between the organizations. P&L has initiated action to connect a PC in the IG's office on Army-Navy Drive in Arlington, Virginia, to the OACS network in the Pentagon so that files can be exchanged electronically.

Since many IG inquiries originate with the General Accounting Office (GAO), P&L also initiated discussions with GAO to analyze the feasibility of electronic exchange between GAO and the IG. GAO agreed to exchange information with the IG in both floppy disk and paper copy formats and also expressed interest in exploring the possibility of transmitting information to the IG over the OACS network. P&L will continue its efforts to establish that capability.

c. Access to Congressional Data

Several directorates in P&L require various types of congressional information. AS&T identified a commercial on-line service, "Washington Alert," which could provide much of the required data. AS&T has submitted a request to establish a contract for one user subscription in FY89.

d. Easy Access to Databases via PC-Attached Modem

Until this year, the OACS network facilities did not support the uploading or downloading of data from remote databases. The existing equipment (Bridge Communications, Inc., CS/100 communication servers) permits users to access remote systems and to capture screens of data in a file; it does not, however, support the uploading/downloading of databases.

AS&T has attached modems to PCs in the Office of Industrial Base Assessment (OIBA) and the Office of the Deputy Assistant Secretary of Defense (ODASD) (Logistics) to permit this type of data exchange. In addition, AS&T prepared a brief written policy on modem operations to ensure network security; the policy included topics such as the use of modems in automatic answer mode.

e.   **Access to Acquisition Management Information System**

At a meeting between AS&T and the Office of the Under Secretary of Defense (Acquisition) (OUSD(A)), the Acquisition Management Information System (AMIS) was discussed, and AS&T later provided a summary of AMIS services to P&L users. The AMIS office is preparing a demonstration of available services. Initial user feedback indicates that AMIS does not provide the data that P&L needs (e.g., budgetary data on spare parts), but P&L will continue to investigate the value of access to AMIS in FY89.

FY90 PLANS

f.   **Defense Logistics Agency Network through DGIS**

Several users in P&L need access to the DLA[1] Network (DLANET) and to the host computers on the network, such as those at the Defense Logistics Services Center (DLSC). Normally, individual PCs must be accredited by DLA to access the network; in addition, a special emulation board must be installed in any PC that accesses the network directly.

AS&T determined that both of those obstacles could be overcome if the DGIS were used as P&L's central access to DLANET. If DGIS could be accredited and the necessary protocol converters installed, no machine in P&L would need to be accredited or modified. Although accrediting DGIS and installing converters will require the procurement of IBM-emulation hardware for DGIS, we anticipate no major technical problems.

g.   **Central Network Control and Central Management System**

AS&T assisted in initiating the central network control and central management system which, because it involves all of OSD, will be managed by DSS in OASD(C).[2] DSS plans to develop an overall network plan for OSD and a central office responsible for all network facilities and management in OSD. The project will be paid for centrally; all organizations using the facility, including P&L, will pay a portion of the cost. EDS has submitted a management plan that should be funded and implemented in FY90.

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[1] Defense Logistics Agency

[2] Office of the Assistant Secretary of Defense (Comptroller)

h.   Customized Scripts on DGIS

P&L users will need customized scripts for remote systems it accesses through DGIS.   The scripts will provide automatic log on and automatic retrieval of predefined search requests. The first two scripts to be developed will probably be for the Washington Alert system (discussed in Paragraph 1.c.) and for DLANET (Paragraph 1.f.).

AS&T has drafted a statement of work (SOW) for the customized script development and that SOW is now being reviewed by CDC. A contract for the work should be awarded by early FY90.

i.   Access to Additional Remote Systems

(1) Five Year Defense Plan and Program Budget Decision Data

Many P&L analysts have a requirement for Five Year Defense Plan (FYDP) and Program Budget Decision (PBD) data.   If the AMIS system supported by OUSD(A) cannot meet those requirements, P&L will award a contract to determine user needs for those data in more detail, identify a source of the data, and take action to obtain access to the data. This task requires resolution of issues of access to data in the FYDP and PBD.

(2) Acquisition Regulations On-line

P&L procured the equipment ODASD (Procurement) needs in order to develop, in conjunction with the Air Force and General Services Administration (GSA), a system for maintaining the Federal Acquisition Regulation (FAR) on-line. In FY90, P&L will determine the feasibility of loading the FAR on to either OACS equipment or onto a remote system such as DGIS where it can be accessed by all OACS users throughout OSD. If the effort proves feasible, P&L plans to complete it in FY90. This project will require the transfer and periodic updating of the FAR text files and the installation of retrieval software. The current Acquisition and Logistics Information System (ALIS) office automation (OA) software may meet this need.

(3) Interoperability Decision Support System

The Interoperability Decision Support System (IDSS), managed by the ASD (Command, Control, Communications and Intelligence), is a worldwide computer network used by DoD organizations working on standards, interoperability, and

cooperative efforts with our allies. P&L staff members require access to the electronic mail capabilities of that network to facilitate communication with those organizations. Since the equipment required for access (IBM-compatible PC and Hayes-compatible modem) is readily available to P&L, gaining access is primarily an administrative matter. Worldwide access to the system is available through both DDN and the Telenet packet-switching networks, as well as through commercial telephone numbers in the Washington, D.C., area.

OBJECTIVE #2. USER SUPPORT AND ENHANCED OPERATIONS

FY89 ACCOMPLISHMENTS

a. Expansion and Enhancement of User Base to Management Support Activities

In FY89, AS&T extended the OACS user base to several additional DLA management support activities (MSAs) and P&L offices. It connected several stand-alone sites to the OACS network and redesigned systems at those sites that needed significant upgrades before they could be connected to the network.

b. Completion of User Survey

In early FY89, AS&T sent a user survey to approximately 25 percent of the P&L staff members. It asked detailed questions about ALIS capabilities, services provided by AS&T (such as software support), and by EDS (including training and systems maintenance). Appendix A summarizes responses to the user survey.

AS&T also reviewed the surveys, identified the most serious problem areas, worked with users to attempt to resolve the problems, and worked with EDS to modify the training. This process, begun in FY89, will continue in FY90.

c. Completion of Needs Survey

AS&T developed a needs survey to determine short- and long-term automation needs in P&L. Each directorate was asked to nominate knowledgeable professional and administrative personnel who would identify the directorate's information and automation needs. The survey was designed as a highly detailed instrument rather than an open-ended one, and was developed to ensure all important areas were covered. Additional space was provided for respondents to add other needs not specifically covered.

The survey covered the following areas:

- Sources of information
- Destinations of information

- Applications needed, including databases

- Classified and sensitive data processing

- Decision support and project management

- Presentation graphics

- Desktop publishing

- Large computer usage

- Math and statistics

- Archival or large-volume storage

- Rule-based systems

- Executive-level systems

- Specific equipment needs

- Conversion from other systems.

Responses to the survey were used as significant inputs to the development of this AIS plan and to setting FY89 and FY90 AIS priorities. Requirements identified from the surveys and currently being pursued are shown in Appendix B.

d. Reduction of Incompatible Equipment

P&L is removing much of its equipment that is not compatible with OACS. Lanier and Lexitron equipment is being replaced with OACS equipment; Wang equipment will be removed after the Gold Card database is converted and loaded on IBM PCs; and the Metaphor equipment will be declared excess when a decision is made about the databases being stored on it.

e. Forms Availability

The Forms project was revived in FY89 after being inactive for more than a year. First, AS&T searched for UNIX-based software that could produce the forms needed by P&L. After determining that no such software is available, a search for similar Microsoft Disk Operating System (MS-DOS) software was initiated.

Four packages were identified: Formmaker, Displayform, PFS, and Per:FORM. Each was evaluated based on minimal needs including (1) ability to operate on OACS

network printers, (2) availability of both a development version (to support development of forms on a controlled basis) and a less expensive version (for completing existing forms), and (3) ability to interface with a database. Other, more qualitative, criteria were also considered, including forms design capability and simplicity of use.

Per:FORM was selected and, in the remaining months of FY89, it will be used to prepare on-line versions of approximately 20 forms. P&L staff will specify the requirements for each form, select a contractor to design the forms, and oversee the installation of the forms at several test sites in P&L. If the test is successful, this capability will be extended to other areas of P&L in FY90 and additional forms will be designed.

In addition, AS&T has discussed with OUSD(A) the installation of a forms capability on Office Automation Secure Information System (OASIS) hardware, as well as on OACS. The OASIS group is pursuing development of a UNIX-based system. P&L is coordinating its work with OUSD(A) in the hope that its efforts can be applied to OASIS.

f.   Establishment of System Administrators

Early in FY89, AS&T distributed a letter over Major General Freitag's signature identifying the need for system administrators in each P&L directorate and for technical and administrative representatives in each deputate. This hierarchy has been established, and it now offers all users assistance in resolving system problems and a mechanism for communicating complaints and identifying needs. The technical coordinators handle problems related to installation and operation of new equipment and problems and issues with MS-DOS products and interfacing, while the administrative coordinators address problems concerning operation of ALIS software. The system administrators carry out day-to-day requirements, such as adding new users, backing up, and archiving files.

The coordinators (technical and administrative) meet separately each month with a representative from AS&T to discuss problems and issues. In addition, an AS&T representative meets periodically with each administrative coordinator to determine whether all systems are working properly.

g. Remote Access to ALIS

The capability to access ALIS from remote sites was available before FY89. However, because the keyboard mapping of the ALIS functions to a PC keyboard was so complicated, this feature was not used. (Since most PCs do not have a mouse, control key sequences are the primary means of performing many ALIS functions.) In FY89, Applix, Inc., provided a simple keyboard mapping and EDS wrote a procedure that includes the mapping and demonstrates how to access and use the system remotely.

P&L has also ordered additional call-back modems to support remote users. Every remote line is protected by a modem that has access to a file with user passwords and preset telephone numbers. After a user dials ALIS and is identified by logging in, the modem breaks the connection, calls the user back at the preset number, and establishes a connection with the user's remote PC. The primary users of this capability are staff members who access ALIS to create documents or read mail while on temporary duty or at their homes.

h. Elimination of MULTICS Site

As of early FY89, several P&L databases were running on the MULTICS system and P&L was maintaining a secure site for MULTICS. AS&T reviewed these applications and found that some were no longer needed and others could be converted to PC use, thus eliminating the need to maintain a secure site. Applications that were not being used were deleted. One application, for which P&L was not the primary user, was transferred to OASD (Force Management and Personnel); two others, the Defense Support Analysis Information System (DSAIS) and the Base Structure Annex (BASES), are being converted to PCs. At this time, all applications have been removed from MULTICS and all equipment and alarms have been removed from the former MULTICS site in Room 3C763 at the Pentagon.

i. Improvement of EDS Services

AS&T, with assistance from DSS and other OSD OACS users, revised and augmented the SOW of the contract under which EDS provides OACS support. The revised SOW was established in December 1988 and required the delivery of several additional EDS services and products. The major ones are described in the following subsections.

representation of the hardware configuration in each P&L office and an inventory of all equipment. Each OSD OA support office will have read-only access to this system and will be able to display any data requested.

(2) Capacity Planning

EDS now compiles and publishes monthly capacity and performance statistics of each Sun file server on OACS in all of OSD. Any capacity or performance problem is noted, along with the recommended corrective actions. For instance, if usage is near capacity or is above acceptable levels (as determined by Sun standards), EDS recommends appropriate action to alleviate the capacity problem.

As more capacity data are gathered and stored, historical data can be plotted and used to forecast future equipment needs so that systems can be expanded to meet growing needs instead of waiting for user complaints of slow performance as was done in the past.

(3) Maintenance Improvements (Help Desk and Malfunction Reports)

EDS provides a help desk for users to report system problems. The responsiveness and quality of this service have been improved as a result of the revised SOW. The help desk attempts to resolve all problems immediately; if it cannot, the problem is tracked until it is finally resolved. The help desk checks with callers after 48 hours to ensure the problem has been resolved. If the caller is not satisfied, the help desk operator notifies a supervisor.

All calls to the help desk are logged in to a database within 24 hours, and the information is analyzed monthly to identify major areas of concern of common interest to all users, user problems that are recurring at a single site, problems not resolved within 48 hours, and problems that are endemic to the software and must be fixed. These issues are all documented in the monthly report to the contracting officer's representative (COR).

EDS must also furnish a copy of all malfunction reports, signed by the installation representative, to the appropriate OSD support office within 24 hours of the completion of the call. Malfunction reports are now available on-line on OACS as part of the inventory system.

Originally EDS provided only a chronological narrative report of all system problems and performance. Now much of the reporting is tabular, permitting the COR to track the resolution of problems.

(4) Design, Installation, and Acceptance Process

The EDS contract defines in detail the user responsibilities and the vendor responsibilities from initial requirements analysis and system design to final equipment acceptance. The redefined process resolves many ambiguities with respect to responsibilities and ensures the design clearly reflects user needs and the installed system includes all components defined in the design.

(5) Configuration Management and Configuration Change Authority

The contract establishes an EDS representative as the configuration change authority (CCA). The EDS CCA established a process for tracking changes to all workstations. This process includes only OACS hardware and software and only specified OACS files. The CCA established a list of files that can be modified by users and local system administrators without first being submitted and approved by the CCA. Any change to a file not on that user-modifiable list must be submitted to the CCA. Any change that affects all systems must be submitted to the System Configuration Board, the membership of which is specified in the revised SOW.

(6) Bulletin Board

In accordance with the contract, EDS established and maintains an OACS bulletin board that is accessible to all OACS users. EDS loads the following information on the bulletin board: (1) answers to common questions; (2) an index of all current technical reports; (3) an index to currently available OACS applications software and a brief description of each package; and (4) an index of all current OACS style guides, macros, printer setups, and other similar aids of general interest that are on the system.

(7) Archiving and Backup

A back-up process has been established with EDS whereby every Sun file server is backed up automatically each evening as long as the user inserts a tape.

For archiving, two procedures are available. A user can create a personal "archive drawer" on the system, load into it all documents to be archived, and copy

that drawer to tape on a regular basis. The alternative procedure is to set up a shared cabinet in which all members of an office can store their files. That cabinet is then copied to tape on a regular basis.

j.   Means to Test New Software

AS&T established an informal MS-DOS software test program for enhancement packages (e.g., ALLWAYS) for the "standard" three MS-DOS software packages (Wordperfect, Lotus 1-2-3, and Harvard Graphics) and for other utilities and related software. AS&T has identified users who are willing to test the software and report on its usefulness and performance.

FY90 PLANS

k.   Expansion of User Base to All of P&L

The FY90 goal is to install OACS equipment in all P&L and MSA offices. These offices include a directorate in ODASD (Procurement), the Strategic and Critical Materials Directorate, and an office in the Hoffman Building (Alexandria, Virginia) that has no OACS equipment. (OACS equipment would have been installed in the latter two offices in FY89 but the installation was delayed because of a reorganization.)

In addition, AS&T will work with those offices that either are not using their OACS equipment or do not want OACS so that it can identify and resolve any impeding issues and OACS can be fully installed in P&L. Two projects that are now under way — the Forms project (described in Paragraph 2.e.) and the Xerox/OACS interface (described subsequently in Paragraph 3.a.) — should obviate the need for Xerox equipment and should allow Xerox users to migrate to OACS equipment with no loss in functionality.

l.   Completion of Plan

AS&T will address information and automation requirements identified in the needs survey and not completed in FY89 and will develop an implementation plan for the short and long term, using the FY90 plans in this document as a base.

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m.   Improvements to Training and Response to Specific Problems

AS&T will continue to work with EDS and OACS users to improve training and resolve issues and problems identified by the users, with a goal of developing a training program that the users feel fully meets their needs. This AS&T effort includes determining the feasibility of providing alternatives to traditional classroom training [e.g., video cassette recorder (VCR), computer-driven training, etc.].

n.   Complete Removal of Incompatible Equipment

All remaining P&L equipment that is not compatible with OACS should be removed by the end of FY90. The budget does, however, provide for minimal Lanier support through FY91, if needed.

o.   Administrative Software Support

From the needs survey, AS&T has determined a requirement for software developed on OACS for at least the following three administrative functions: (1) a directorate suspense system, (2) an appointment calendar for all staff within a directorate, (3) a P&L-wide phone directory. In FY90, AS&T will determine (most likely with contractor support) the technical requirements for those functions and will develop and install the needed systems.

p.   Standard P&L Menu System for ALIS

As standard MS-DOS software is installed for P&L-wide use, a menu system will be developed to provide simple access to ALIS, to MS-DOS software packages, and remote systems (such as DGIS).

q.   Independent Audit of OACS

Significant improvements have been made during FY89 in the management of the OACS project. Many obvious problems (e.g., the need for capacity management, accurate inventory, more responsive maintenance, etc.) have been addressed. In

FY90, AS&T will hire an independent objective consultant to examine the system and determine what further improvements are needed. In particular, the consultant will be tasked to review and evaluate (1) management controls in place on the Sun configurations, (2) the UNIX implementation on OACS, (3) the Ethernet configuration, and (4) other related management and technical areas.

OBJECTIVE #3. COOPERATIVE OSD EFFORTS

FY89 ACCOMPLISHMENTS

a. Xerox/OACS Interface Established

Early in FY89, P&L began an effort to provide an OACS/Xerox interface. During that effort, Xerox introduced a new Xerox Network Service-Transmission Control Protocol/Internet Protocol (XNS-TCP/IP) gateway and DSS acquired the product and installed it at three locations on the OACS network. Those new gateways are now working and will soon be completely operational. Procedures for their use were written by AS&T and distributed to the P&L technical coordinators. With the gateway capability, documents and mail can be transferred between the OACS and Xerox networks.

The new gateway procedure has one minor shortcoming: since no on-line directory of all Xerox user addresses is available, one must know the Xerox addresses beforehand. An FY90 goal is to determine the feasibility of providing that on-line directory.

The OASIS system may simplify this issue. It will be UNIX-based and may use ALIS software. If so, all of OSD will be using ALIS software, and communication will not require translations or address transformation.

b. Optical Disk: Stand-Alone Demonstration System Installed (FY89)
and
f. Optical Disk: Integrated with OACS/Deputate-Wide System (FY90)

The requirement for installation of a stand-alone optical disk demonstration system originated with the P&L Logistics directorate, which indicated that the volume of paper documents and reports that an office in OSD must maintain is becoming unwieldy. The possibility of using an optical disk system to solve this problem was suggested.

AS&T performed a functional study (with contractor help) to identify the office functions needed and a technical study to identify available products. Products that could meet many of P&L's needs were found, but none of the products could operate

on the OACS network or provide an interface to the network. AS&T pursued the possibility of beta testing a product being developed by a major optical disk manufacturer but, after several months of discussion, the vendor decided against product development. As an alternative, the Logistics directorate suggested that a stand-alone system be installed to simply test the capabilities of optical disk technology. A system will be installed in FY90.

In the meantime (as an FY90 goal), the OASIS project contract office has agreed to work with the OASIS contractor to attempt to develop an integrated system for P&L. (In its effort, the OASIS project will develop and deliver a high-capacity optical disk system. AS&T hopes that this large system can be scaled down for use by a segment of P&L.)

c.   ADP Budget Integrated to OUSD(A)

AS&T established a database for creating, storing, and electronically transmitting Forms 43 (budget forms) on OACS equipment to OUSD(A).

d.   Administrative Instruction 56 and Major Automated Information System Review Council Guidelines

Administrative Instruction (AI) 56 was written by DSS to define ADP responsibilities and procedures for DSS and users. The Major Automated Information System Review Council (MAISRC) guidelines were written by DSS to apply the MAISRC process to OSD purchases of more than $500,000. Any purchase under that threshold amount would be subject to a mini-MAISRC.

On both topics, AS&T initiated discussions with several other OSD offices to write a joint document suggesting changes to AI56 and the MAISRC guidelines. DSS used the joint AI56 draft as the model for a revised AI56, which will soon be promulgated. AS&T initiated these actions because it believes that the DSS role with its oversight responsibilities should be determined as a joint effort with OSD input, not unilaterally by DSS since DSS is a support organization. P&L also believes that DSS should concentrate more effort on providing leadership and guidelines on OSD-wide issues (such as development and approval of an OSD-wide OA plan and in areas such as system architectures, in-house publishing, and optical disks) rather than concentrate on detailed reviews of individual budget requests.

e. Simplify Xerox/OACS Interface

Communication between Xerox and OACS users is now possible but cumbersome. In FY90, the interface will be simplified so that users can exchange electronic mail and files more easily.

f. Optical Disk: Integrated with OACS/Deputate-Wide System

FY90 plans in this area are described in Paragraph 3.b.

g. Expand Budget Automation to OASD(C)/DSS

In FY90, P&L will expand its capability to submit Forms 43 electronically [now limited to intra-OUSD(A)] to include submissions between OUSD(A) and DSS.

h. Improve P&L DSS/OSD Relations

AS&T will continue to develop a cooperative relationship with DSS and the other OSD OA offices and will encourage DSS to solicit input from all of OSD when developing or changing OSD-wide policies or procedures such as the AI56. AS&T will encourage efforts that foster joint DSS-OSD action.

i. Assist in Development of OSD Office Automation Program

As defined in the new AI56, DSS and OSD components will jointly develop an OA plan for all of OSD based on input from all users and coordinated through a user committee composed of representatives from each ASD. The ASD representatives will meet on a regular basis and, in effect, provide a peer review of each other's OA programs and ADP budget inputs. The purpose of the review is not to seek approval but rather to ensure programs are coordinated, suggestions are offered, and duplication is avoided.

OBJECTIVE #4. HARDWARE/SOFTWARE SELECTION AND PROCUREMENT

FY89 ACCOMPLISHMENTS

a.   Laptop PCs (286s)

Laptop PCs have been ordered for use by P&L analysts on temporary duty or at their homes. In order to use them on OACS, these machines must have a call-back modem installed (see Paragraph 1.d.) and must incorporate ALIS dial-in capability (see Paragraph 2.g.).

b.   Facsimile Machines (FY89)
and
i.   Facsimile Cards for Personal Computers (FY90)

AS&T ordered stand-alone facsimile (fax) machines and may order fax cards for use in PCs. This equipment would offer interesting new capabilities for use in ALIS documents, such as the ability to read digitized images from the fax machine to the fax card and store the image as a picture on ALIS.

c.   Presentation Equipment

AS&T has ordered an cverhead projector display device, video display device, and slide-making equipment for use within P&L.

d.   Additional Call-back Modems

Additional call-back modems, described in Paragraph 1.d., will be purchased to support dialing into ALIS from remote locations.

e.   MS-DOS Software (FY89)
and
n.   Site Licenses for MS-DOS Software (FY90)

Although the ALIS software offers many helpful features and is widely used in P&L, users sometimes prefer other, stand-alone MS DOS-based software products. AS&T has decided to support one MS-DOS product in each major software category, such as word processing, graphics, database, and spreadsheet. The word processing

"standard" is Word Perfect; the graphics "standard," Harvard Graphics; and the spreadsheet "standard," Lotus 1-2-3. Copies of those packages will be provided to all interested users. AS&T did not identify a specific database management system (DBMS), since no single DBMS will meet all P&L needs. AS&T will determine appropriate DBMS use as applications arise.

In FY90, P&L will examine the cost and feasibility of acquiring site licenses for the products in greatest demand.

f.   FAR Development System

In FY89, AS&T procured PC hardware to support development of the FAR, on-line, with GSA and the Air Force [see Paragraph 1.i.(2)].

g.   Improved DOS/UNIX Interface

Procurement and installation of upgraded EXCELAN software has simplified DOS-UNIX operations on OACS.

FY90 PLANS

h.   Laptop PCs (386s)

In FY89, 286-based laptop PCs are being procured (see Paragraph 4.a.). Although those computers can be used to access ALIS, their clock speed and available memory do not provide adequate performance for running many advanced MS-DOS applications or ALIS stand-alone. In FY90, 386-based laptop PCs will be procured to provide the speed and memory required to run either larger MS-DOS applications or ALIS stand-alone applications. In order to use these machines on OACS, call-back modems (see Paragraph 1.d.) and ALIS dial-in capability (see Paragraph 2.g.) are needed.

i.   Facsimile Cards for Personal Computers

FY90 plans in this area are described in Paragraph 4.b.

j. Compact Disc-Read Only Memory Drives

With the ever-growing inventory of databases and documents available on compact disc-read only memory (CD-ROM), several users have requested that CD-ROM drives be installed on their PCs. In FY90, such drives will be procured for selected P&L users. (High-capacity drives are also being procured for the OASIS project. The drives will support write-once discs and will be integrated with OACS to provide multiuser access).

k. 19-inch Monitors for Desktop Publishing

Many directorates in P&L now publish reports and documents using ALIS or stand-alone desktop publishing software. To fully utilize that software, users have requested monitors larger than the standard 12-inch size provided with ALIS. A limited number of 19-inch monitors will be procured in FY90 for selected P&L users.

l. Color Printing

P&L will procure color printers for use in selected office suites.

m. Scanners Compatible with ALIS to Scan Images and Text

Scanners will be acquired for digitizing images and text on ALIS.

n. Site Licenses for MS-DOS Software

FY90 plans in this area are described in Paragraph 4.e.

o. Acquisition of Remaining OACS Equipment

AS&T will acquire equipment for offices in which OACS equipment has not yet been installed (see Paragraph 2.j.) or offices that have new equipment requirements.

p. Improved Import/Export from ALIS to Other Software

Since ALIS supports document content architecture (DCA) and document interchange format (DIF), the import and export of ALIS documents need not be difficult. The process of transferring documents could be simplified by developing and using script files.

OBJECTIVE #5. DEVELOPMENT AND CONVERSION OF APPLICATIONS

FY89 ACCOMPLISHMENTS

a. **Defense Energy Information System (FY89)**
    and
f. **Conversion/Redesign of the Defense Energy Information System (FY90)**

The Defense Energy Information System (DEIS) is DoD's primary source of data on energy supply and usage. It has a number of fundamental problems that can be overcome only by completely redesigning the system. P&L awarded a contract for that redesign and it includes (1) examining sources of data for energy supply assurance and program management; (2) identifying data essential to P&L for meeting its responsibilities; (3) recommending the best method for collecting those data and the best hardware and software to be used; and (4) developing the system concept and specifications for the redesigned DEIS, including an analysis of alternative processing and telecommunication solutions, projected funding, and benefit/cost analysis.

b. **Base Structure Annex**

The Base Structure Annex (BASES) database is used to produce the annual Base Structure Report to Congress. It was running on MULTICS and is now being transferred to a PC.

c. **Budget System**

AS&T established a database for creating, storing, and electronically transmitting Forms 43 on OACS equipment to OUSD(A).

d. **Gold Card**

The Gold Card database, developed for ODASD (Installations), contains the names and addresses of Excellant Installations members and utilizes ALIS' mail merge and envelope printing capabilities. This program has been transferred from Wang equipment to ALIS.

e. Defense Support Analysis Information System

The Defense Support Analysis Information System (DSAIS), which tracks the sales of military equipment to foreign governments, is being transferred from MULTICS to a PC.

FY90 PLANS

f. Conversion/Redesign of the Defense Energy Information System

FY90 plans in this area are described in Paragraph 5.a.

g. Decision Support Systems

AS&T will award a contract to analyze P&L's need for decision support systems and to identify potential applications.

h. Specific Application Development

Applications requested by ODASD points of contact (in the budget submission of late FY89) will be analyzed in FY90 and the most feasible will be developed.

OBJECTIVE #6. SYSTEM SECURITY AND INTEGRITY

FY89 ACCOMPLISHMENTS

a. Completed Security Plans for Stand-Alone Classified Processing

Site surveys and security plans have been written and approved for several office suites requiring stand-alone equipment for processing classified information. In FY89, AS&T submitted security plans to obtain authorization to use non-Tempest equipment to process classified data in some suites. Each plan provides standard operating procedures and describes how processing is performed at the individual site. A list of offices for which a security plan has been written is provided in Appendix C.

b. Installed Stand-Alone Systems (286s)

Stand-alone Tandem 286 machines with removable disk drives are being installed in FY89 for classified processing. Those units will process MS-DOS applications satisfactorily, but run Xenix ALIS very slowly.

c. Initial Security Policy for Nonclassified Sites (Network Processing)

Security policy for sites performing unclassified network processing has been written and distributed. That policy covers short-term, high-priority security issues, including the use of PCs on the OACS network, protection and changing of passwords, and a security hierarchy that allows only higher level users (such as system administrators) to access as a "root" user other machines on the network. Also covered is the need and procedures for backing up data and instructions for the proper use of modems on the network.

FY90 PLANS

d. Prepare Additional Security Plans

Security plans for several more office suites will be written in FY90.

e. Upgrade 286s to 386s for Stand-Alone Classified ALIS Processing

The Tandem equipment used for stand-alone classified processing will be upgraded from 286s to 386s. That upgrade will provide the additional processor speed needed to run ALIS on a stand-alone machine (with Xenix). EDS will submit a contract modification adding the Tandem 386 to the contract.

An alternative option for meeting this requirement is to buy Sun 386i hardware through the OASIS contract. That option will be comparable in price for multi-workstation installations.

f. Risk Analysis, Including a Continuity of Operations Plan

In judging how well the OACS system is being managed, an important consideration is whether the system is properly protected from risk. Therefore, as part of its independent audit of OACS (described in Paragraph 2.q.), AS&T will perform a risk analysis of the OACS system. The risk analysis will identify the protection needed to handle unclassified and sensitive data; it will not cover the processing of classified data (which is being covered by the security plans); and it will include a continuity of operations plan (COOP). The risk analysis will also be a prerequisite for possible testing of public key encryption methods on the system.

GLOSSARY

ADP	=	automated data processing
AI	=	Administrative Instruction
AIS	=	Automated Information Systems
ALIS	=	Acquisition and Logistics Information System
AMIS	=	Acquisition Management Information System
AS&T	=	Automation Support and Technology
ASD	=	Assistant Secretary of Defense
BASES	=	Base Structure Annex
CCA	=	configuration change authority
CDC	=	Control Data Corporation
CD-ROM	=	compact disc-read only memory
COR	=	contracting officer's representative
DBMS	=	database management system
DCA	=	document content architecture
DDN	=	Defense Data Network
DEIS	=	Defense Energy Information System
DCIS	=	Defense Gateway Information System
DIF	=	document interchange format
DLA	=	Defense Logistics Agency
DLANET	=	Defense Logistics Agency Network
DLSC	=	Defense Logistics Services Center
DoD	=	Department of Defense
DSAIS	=	Defense Support Analysis Information System

DSS	=	Directorate for Systems and Services
EDS	=	Electronic Data Systems, Inc.
fax	=	facsimile
FY	=	fiscal year
FYDP	=	Five Year Defense Plan
GAO	=	General Accounting Office
GSA	=	General Services Administration
IDSS	=	Interoperability Decision Support System
IG	=	Inspector General
LMI	=	Logistics Management Institute
MAISRC	=	Major Automated Information System Review Council
MS-DOS	=	Microsoft Disk Operating System
MSA	=	management support activity
OA	=	office automation
OACS	=	Office Automation and Communication System
OASD	=	Office of the Assistant Secretary of Defense
OASD(C)	=	OASD (Comptroller)
OASD(P&L)	=	OASD (Production and Logistics)
OASIS	=	Office Automation Secure Information System
ODASD	=	Office of the Deputy Assistant Secretary of Defense
OIBA	=	Office of Industrial Base Assessment
OSD	=	Office of the Secretary of Defense
OUSD	=	Office of the Under Secretary of Defense
OUSD(A)	=	OUSD (Acquisition)
PBD	=	Program Budget Decision
PC	=	personal computer

SOW   = statement of work

VCR   = video cassette recorder

XNS-TCP/IP   = Xerox Network Service-Transmission Control Protocol/Internet
                Protocol

APPENDIX A

SUMMARY OF USER SURVEY RESPONSES

This appendix is comprised of responses to the user survey by the staff of the Office of the Assistant Secretary of Defense (Production and Logistics) [OASD(P&L)]. The survey, conducted in early FY89, asked detailed questions about the Acquisition and Logistics Information System (ALIS) software capabilities; services provided by the Director, Automation Support and Technology (such as software support); and services offered by Electronic Data Systems, Inc. (including training and systems maintenance). A summary of responses to Section 1 of the survey (ALIS office automation software capabilities) provided by the P&L staff follows.

As can be seen from responses to the calendar, business graphics, and free-form graphics sections, there is a high percentage of dissatisfaction with these features and corrective activities, including increased availability of Microsoft Disk Operating System (MS-DOS) software packages, are planned for FY90.

ALIS OACS USER INTEREST SURVEY

The current systems offers the following major features.
Please indicate if you have USED (Col A) the feature, and if
so, are you SATISFIED (YES, Col B/NO, Col C) with its operation. If you need more INFORMATION (Col D), please indicate.

	A	B	C	D	A%	B%	C%	D%
MAIL								
Send messages	78	71	5	4	100	91	6	5
Send documents	73	69	2	3	100	95	3	4
Send multi-addressed documents	59	54	7	3	100	92	12	5
PHONE MESSAGES								
Prepare msg and mail	47	39	7	3	100	83	15	6
File msgs	40	30	9	6	100	75	23	15
INBOX								
Receives msgs and docs	80	71	2	2	100	89	3	3
Choose inbox style	38	36	4	11	100	95	11	29
Sort displayed cols	31	29	6	10	100	94	19	32
CALENDAR								
Automatic sked of attendees	12	3	11	8	100	25	92	67
Sched resources for meetings	12	3	13	7	100	25	108	58
Track personal appoints	27	7	19	8	100	26	70	30
Reminders	27	9	17	8	100	33	63	30
CALCULATOR	34	20	14	6	100	59	41	18

DOCUMENT COMPOSER

IF you are only a CASUAL ALIS user, and do not compose
documents, please skip to Section 2.

	A	B	C	D	A%	B%	C%	D%
FILING								
Organize documents	69	55	5	6	100	80	7	9
PRINTING								
Print documents	77	63	11	1	100	82	14	1
Print current display	46	40	5	4	100	87	11	9
Set defaults	50	44	7	3	100	88	14	6
Variety of printers and styles	52	44	4	3	100	85	8	6
STYLE GUIDES								
Editing	51	33	15	7	100	65	29	14
Creating	39	24	12	9	100	62	31	23
DICTIONARY								
Add words	45	34	8	8	100	76	18	18
Remove words	22	19	3	8	100	86	14	36
ASSIGN KEYWORDS								
Query for documents, wildcards	9	8	4	12	100	89	44	133
SPELL CHECK								
Entire document	70	61	8	2	100	87	11	3
Automatic replacement	43	39	4	4	100	91	9	9

One word	49	46	3	5	100	94	6	10

MULTIPLE FONTS

Bold, Italics, Size, Caps	70	68	2	3	100	97	3	4

ATTRIBUTES

Line spacing; justifying text	64	55	9	4	100	86	14	6
PAGINATION - WYSIWYG	45	32	14	8	100	71	31	18

TABLE OF CONTENTS

System generates automatically	8	6	3	11	100	75	38	138

INDEX FUNCTION KEYS

Printers/styles	40	3?	4	4	100	88	10	10
Lists style guides to choose	36	32	2	6	100	89	6	17
Addresses at Mail utility	36	29	5	5	100	81	14	14
FOOTNOTES, HEADERS, MARGINS	39	26	11	7	100	67	28	18

WASTEBASKET

Retrieve	43	36	5	6	100	84	12	14

IMPORT/EXPORT OPTIONS

ASCII	23	15	9	9	100	65	39	39
Navy DIF	9	5	5	6	100	56	56	67
DCA	4	0	5	7	100	0	125	175

PERSONAL CABINET

Storage of created documents	67	63	1	5	100	94	1	7

SHARED CABINETS

Joint owner of one or more	36	22	11	6	100	61	31	17
Network-based information-sharing	16	9	6	10	100	56	38	63
Bulletin Board	13	7	6	11	100	54	46	85

SPREADSHEET

Calculate mathematical formulas	29	25	4	7	100	86	14	24
Include projection tables	6	4	4	11	100	67	67	183
Goal seek	6	4	3	11	100	67	50	183
Named views	11	7	4	10	100	64	36	91
Named ranges	16	12	5	12	100	75	31	75
Business graphics	18	6	14	13	100	33	78	72

DATABASE

Record keeping	31	25	6	7	100	81	19	23
Sorting	26	21	5	6	100	81	19	23
Query	20	15	6	8	100	75	30	60
Named views	16	13	4	8	100	81	25	50

GRAPHICS EDITOR

Create free-form graphics	23	9	13	12	100	39	57	52
Edit business graphics	8	6	8	13	100	75	100	163
User-defined parts	18	14	4	12	100	78	22	67
Parts libraries	15	9	7	11	100	60	47	73
Scanned images (available soon)	4	1	3	13	100	25	75	325

INTEGRATION

Inserts	14	8	5	11	100	57	36	79
Insert graphs --->text	11	7	5	10	100	64	45	91
Insert databases --->text	10	5	5	10	100	50	50	100
Insert spreadsheets --->text	13	7	5	10	100	54	38	77

Form-letters and Mail Merge	6	3	3	9	100	50	50	150

CUSTOM COMMANDS (MACROS)

Keystroke commands	34	33	2	6	100	97	6	18
Learns keystrokes & replays	18	17	2	8	100	94	11	44
Edit commands	16	15	2	9	100	94	13	56
ELF	9	7	3	8	100	78	33	89

UTILITIES

Backup your personal cabinet	23	17	4	8	100	74	17	35
Retrieve data	11	6	5	8	100	55	45	73
Personal defaults and preferences	39	31	6	6	100	79	15	15

NEW CUSTOM FEATURES

Auto. index to addresses for mail	28	25	2	9	100	89	7	32
Creation of mail distribution lists	16	12	4	12	100	75	25	75
Global search/replace	16	15	2	13	100	94	13	81
Desktop lockout for security	8	5	4	16	100	63	50	200
Simplified copy/move	17	14	2	11	100	82	12	65

APPENDIX B

REQUIREMENTS IDENTIFIED FROM THE NEEDS SURVEY

The following Production and Logistics automation needs were identified from the needs survey:

- Establishing access to remote systems, including the Defense Data Network (DDN)/Military Network (MILNET); Planning, Programming, and Budgeting System (PPBS) budget data; DoD Inspector General and the General Accounting Office; Headquarters, Defense Logistics Agency; and congressional databases. Providing easy access to remote systems through dial-out modems attached to personal computers (PCs).

- An interface between the Office Automation and Communication System (OACS) and Xerox networks.

- Procurement of special equipment, including laptop PCs, slide projection devices, compact disc-read only memory (CD-ROM) readers, better optical scanning devices, and facsimile equipment integrated with OACS.

- Development of executive functions software to provide a suspense system, appointment calendar, and telephone directory.

- Other software needs, such as standard Microsoft Disk Operation System (MS-DOS) packages for word processing, spreadsheet, and graphics; and a good DOS/UNIX print interface.

- Installation of systems for classified processing.

- Development of automated forms on OACS.

APPENDIX C

OFFICES FOR WHICH SECURITY PLANS ARE WRITTEN

Security plans have been written for the following offices in Production and Logistics:

- Energy Policy, Room 1D760

- International Acquisition, Room 2A326

- International Logistics, Room 2B239

- Logistics Munitions Sustainability Division, Room 2C263

- Logistics Planning Analysis, Room 2D261

- Maintenance Policy, Room 3B915

- Supply Management Policy, Room 3B730
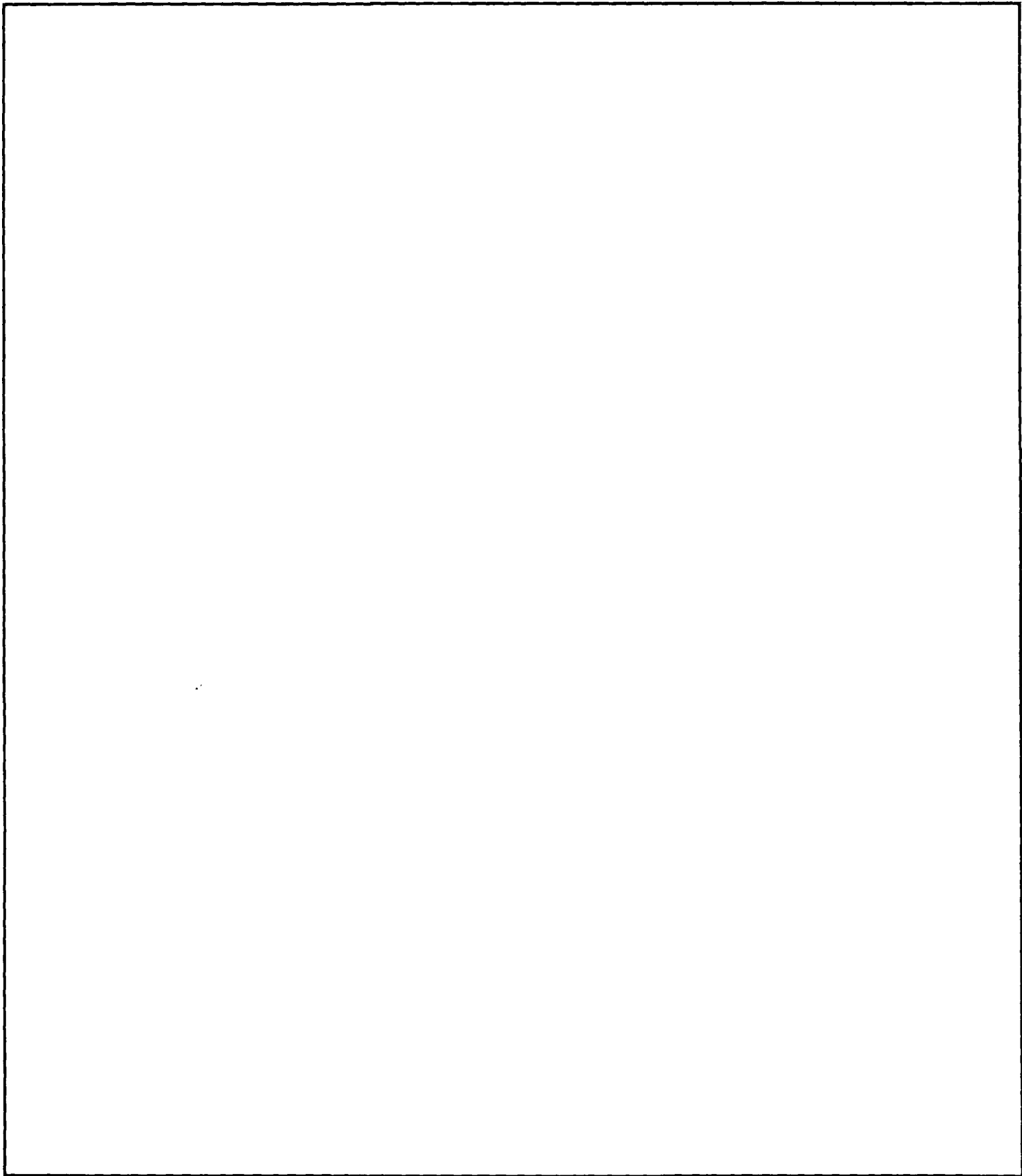
- Weapon Support Improvement Group, Room 2B322.

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17.	COSATI CODES		18. SUBJECT TERMS *(Continue on reverse if necessary and identify by block number)*
FIELD	GROUP	SUB-GROUP	ADP planning, information technology

19. ABSTRACT *(Continue on reverse if necessary and identify by block number)*

This plan contains a systematic approach for allocating automated data processing resources to support the functional and management activities of the OASD(P&L) staff.

The plan is presented in six sections, one corresponding to each major P&L objective:
- Connectivity and data exchange with external systems and organizations
- User support and enhanced operations
- Cooperative OSD efforts
- Hardware/software selection and procurement
- Development and conversion of applications
- System security and integrity.

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