19 SEP 1983

MEMORANDUM FOR: Deputy Chief, P&PD
Production Manager, P&PD
Chief, Office of Management Support, P&PD
Branch and Staff Chiefs, P&PD

FROM: [redacted] STAT
Chief, Printing and Photography Division

SUBJECT: P&PD Strategic Plan

1. The purpose of this memorandum is to request that all Printing and Photography Division (P&PD) management personnel review the Division's existing (1982-86) Strategic Plan and provide input for updating that document. Information provided should cover the years 1984-88. Consideration should be given to customer requirements, staffing, equipment/system acquisition, ADP support/interfaces, training, space, etc. Please provide the Chief, Plans, Programs and Systems Staff (PP&SS) with updated Strategic Plan information by close of business 31 October 1983.

2. If you have any questions regarding this memorandum or the information requested, please contact [redacted] C/PP&SS. STAT

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1982-1986 P&PD STRATEGIC PLAN
(COVERSHEET)

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Section 1 Overview

1.1 Introduction

The Strategic Plan sets forth the long range goals and objectives of the Office of Logistics/Printing and Photography Division (OL/P&PD) for the 1982-1986 time period. The plan is based on the premise that P&PD will continue to support the Agency's information output production requirements. These production support requirements will include; traditional and electronic printing, high volume copying, document binding, photo finishing in both black and white and color, motion pictures, video tape replication, multimedia presentations, briefing aids and video disc production and Agency photographic support. The support will be provided in the Printing and Photography building, Headquarters building and at remote Agency sites throughout the Washington, D.C. metropolitan area. Additionally, the requirement to administer the Agency's copier management program will continue. There will also be changes in the type of support provided to the Agency's micrographics and computer graphics programs.

Automation and data processing will play a large role in P&PD's efforts to meet its support requirements. The automation of production processes will continue to expand as new equipment is incorporated in the Branches, thereby allowing the Division to accomplish its mission within shorter time constraints. There will be more electronic interfaces between P&PD's production systems, the Office of Data Processing (ODP) and customer/users data bases throughout the Agency. Along with the increased automation and computer system interfaces will come the necessity to train P&PD personnel in data processing or augment the P&PD work force with data processing professionals.

At the same time that production methods are being updated and automated a sophisticated Management Information System (MIS) will be implemented which will allow P&PD management to measure the utilization of personnel, equipment and material resources. This information will provide the basis for management decisions on the most efficient/cost effective methods for the overall operation of the Division.

1.2 Scope

The plan will become the basis for developing P&PD objectives that will facilitate efficient and cost effective methods in support of the Agency. These objectives will include both budgeting and personnel resource considerations.

1.3 Policy and Guidelines

The Director of Logistics through the Printing and Photography Division is responsible for operating and maintaining a centralized headquarters printing and reproduction facility. Agency printing and reproduction services will be accomplished using the most economical processes consistent with reasonable quality, security and urgency. Additionally P&PD is to administer an Agency wide copier management program through which all copying equipment will be acquired and allocated. Programs will be established to ensure the cost effective and efficient utilization of copiers and related equipment.

In order to maintain the Division's responsiveness to the Agency's information output production requirements, P&PD management must become more involved in the long range planning process. This planning process must include: personnel projections, career development and training; capital expenditures for new and replacement equipment; expenditures for materials; interfacing with existing and planned Agency information systems; implementation of new technologies; and space requirements and renovations. This planning process must be dynamic and flexible in order to address the ever-changing Agency information output requirements and P&PD's support to meet those requirements.

1.4 Assumptions

a. Financial Resources

P&PD will continue to receive the financial resources necessary to support Agency requirements and to make capital investments for equipment replacement, equipment automation and development of new technologies.

b. Personnel Resources

(1) P&PD personnel strength will likely increase in the coming years due to the continuing requirement to provide twenty-four hour a day, seven day a week service and increased requirements such as staffing for remote information media centers and support for new production services yet to be identified.

(2) The utilization, training and distribution of P&PD personnel resources will continue to be a problem

as more automated production systems are put into operation.

(3) Automation will bring with it the necessity to train more people in Automatic Data Processing (ADP).

(4) P&PD production personnel will have to be trained in multiple fields in order to keep up with ever-increasing customer demand and automated and sophisticated technologies.

(5) P&PD will be required to staff Remote Information Media Centers throughout the Washington metropolitan area.

(6) Future P&PD managers will have to become information management specialist instead of only printing and/or photography specialist.

(7) P&PD will have to develop a better in-house expertise to provide ~~maintenance~~ support for newly acquired electronic production equipment.

c. Program Support

(1) P&PD will continue to support the Agency Copier Management Program.

(2) Efforts will continue toward consolidation of the Agency micrographics program into P&PD.

(3) Through consolidation or electronic interface, P&PD will provide centralized support for the Agency computer graphics program.

(4) P&PD will support the development and implementation of Agency Remote Information Media Centers.

d. New Technologies

(1) P&PD will totally automate its prepress printing operation for standard format publications.

(2) P&PD will become involved in the laser/electronic printing technologies in support of Agency requirements.

(3) More electronic interfaces to Agency information systems will be necessary.

(4) P&PD will become involved in the production and support of Agency video disc requirements.

e. Facilities Management

(1) A study will be undertaken to determine the feasibility of taking over the maintenance and operation of P&PD building from GSA.

(2) Renovations to existing space and additional space requirements will become necessary as the Division acquires new equipment or develops new methods to meet Agency requirements.

f. Management Support

(1) Because of the increasing complexities of the P&PD personnel, production and supply systems, the Division will become increasingly dependent on the data provided through its automated Management Information System (MIS) for making management decisions.

(2) The P&PD MIS will be enhanced to provide information which will measure employee productivity and material waste.

Section 2 Requirements

2.1 Division Wide

Changes internal and external to P&PD will influence the organizational structure and the manner in which P&PD provides information production support to the Agency. Externally, more and more devices are being acquired by P&PD customers that have electronic communication capabilities. Internally, P&PD is attempting to interface the majority of its production hardware and to automate its production operation wherever possible. Additionally, P&PD is trying to electronically interface (through the Office of Data Processing's (ODP) IBM/VM/Computer system) its Electronic Text Editing and Composition System (ETECS) with its customers production equipment. By 1986, P&PD's prepress operations should be totally automated. In order to accomplish and support this and other hardware/software automation and electronic interface capabilities, P&PD must develop a greater ADP personnel resource expertise.

In the early to mid 1980's customer information production/handling requirements will change significantly. There will be greater utilization of electronic/laser printers, computer graphics, Computer Output Microfilm (COM) and video/optical discs. There will be an increase in the use of telecommunications between information handling/processing devices. A requirement for distributed (on site) information processing will also increase.

If Agency functions continue to be disbursed between several different buildings in and around the Washington metropolitan area, Remote Information Media Centers will have to be established. These centers will provide the capabilities for laser printing, ETECS interface and proofing, high speed copying, binding and document finishing, COM, word processing, and computer graphics. Personnel staffing for these facilities will be provided by P&PD.

In order to better manage the resources that are necessary to support the Agency's information production requirements, P&PD will become more dependent on its in-house Management Information System (MIS). The MIS must be enhanced to provide accurate information on job loading and scheduling, employee and branch productivity, material waste and utilization, equipment reliability and preventive maintenance schedules, inventory control, and job tracking.

In supporting the Agency's information production requirements, the following areas must be addressed:

a. Traditional High Quality Printing

(1) As was the case in the past five years the prepress function will continue to represent the area of greatest technological development through the mid-80's.

(2) Direct plate exposing systems (laser platemakers) will, early in the subject period, eliminate the need for costly silver laden photographic film on many jobs. Later, the direct interface of the ETEC system and a laser platemaker will totally eliminate the entire photographic and negative stripping activities for all text jobs.

(3) By 1985 electronic cameras and color scanners combined with ETECS-like systems will make totally composed pages, even to the inclusion of graphic material, possible.

(4) Prior to 1985, ETECS will have been further enhanced and expanded, and communications capabilities will have grown to support many of the Agency's traditional printing requirements. Increased communications will also be needed to support a potential network of electronic printing systems, such as the Xerox 5700 which will be utilized to produce ETECS galley proofs, NIE drafts, and Alert Memoranda and Situation Reports at the point of need. The same type of communications facilities may be needed for other, as yet unidentified, facsimile transmission requirements and systems.

(5) It is expected that new and more automated press, bindery, and dissemination equipment will come into use early in the period. The upgrading of P&PD's press and post-press capabilities will enable the Division to better deal with continuing production increases.

(6) In addition to increased overall operation efficiency, the technological advances in traditional printing capability will be aimed at dealing with what

P&PD sees as significant growth in a variety of customer demands.

(7) Printing support for the Intelligence Community is likely to increase, and the variety and volume of unclassified printing for public consumption will remain the same or possibly decrease.

(8) The current expansion and availability of word processing systems and the large volume of computer data base publishing will result in an increase in the requirement for printed text. Improved product appearance is also reflected in a growing requirement for the printing of graphic material to support the textual portion of publications, and for text independent graphics. This latter category of work will be responsible for the growth in the number and capability of computer graphic systems.

(9) It is P&PD's view that the costs and complexities involved in meeting all of these demands make it necessary to continue the trend toward centralization of the equipment and management of traditional high quality printing facilities. The exception to this trend is the placement of ETECS terminals in the publishing offices. This limited decentralization has enabled DDI/OCO, DDI/OCR, and DDO/CA Staff to produce publications in formats and styles uniquely suited to themselves, as well as dramatically and positively affecting the throughput time associated with their publications.

(10) P&PD and DDI/OCO will jointly plan future system acquisitions which will impact on both components' operation. Because of the goal of having all intelligence information in digital form, OCO as the publisher and P&PD as the printer of intelligence publications, must work together to ensure that newly acquired systems are compatible with one another.

b. Electronic Printing

(1) Electronic printing, for the purpose of this paper, is that printing which is accomplished on devices which are currently capable of producing multiple font images approaching typeset quality, in low to moderate volumes, at relatively high speeds and

costs. The best example of an electronic printing device is the Xerox 9700.

(2) Xerox Corporation has recently introduced a "baby" 9700 called the 5700. Although this device is not as fast as the 9700 it has several capabilities that the 9700 does not. In addition performing as a multiple font printer and copier, the 5700 can transmit and store data, and it can receive and print data from a remote computer. P&PD has suggested to both Xerox and Atex, Inc. (ETECS' supplier) that an interface allowing ETECS to output via the 5700 would be attractive not only to P&PD, but to the graphics arts industry in general. Atex has indicated that such an interface will be available in early 1982. It is likely then that P&PD, in cooperation with DDI/OCO, will install a 5700 in OCO early in CY-1982.

(3) P&PD has been told that both IBM and Kodak plan to introduce products similar to the 5700. This would support P&PD's view that this type of device will find wide application in the "office of the future". As noted earlier, P&PD would use the 5700 as a proofing device for ETECS and for the production of short run, intermediate quality reports for OCO.

(4) Although the growth potential for the smaller electronic printing system seems huge, P&PD feels that, as with convenience copiers and the 9700, there will be little impact on traditional printing. The material which will be produced on these sysems never gets to the "printer". Most of this material either does not justify the costs involved for printing or it is too time-critical for formal printing processes.

(5) From an organizational standpoint, the control of electronic printing should be handled somewhat differently than from traditional printing. The very nature of these stand-alone devices would preclude rigid equipment centralization. The management of Agency electronic printing should, however, be controlled through a centralized office as is now being done with the Agency centralized Copier Management System. The similarity between electronic printers and copiers would indicate that electronic printing would also benefit from the efficiencies of centralized control. In terms of application, it can be difficult to decide where the use of a copier stops and the use of an electronic printer begins.

(6) Responsiblity for electronic printing control is an interesting question. If first initiative, and the obvious computer relationships are paramount, then maybe Office of Data Processing control makes sense. On the other hand if the Joint Committee on Printing's edict concerning printing devices, and P&PD's copier management role hold sway, then P&PD should take the responsibility. In any case, electronic printing should not go unmanaged.

(7) Electronic printers will be the primary hardware devices that Remote Information Media centers are constructed around. P&PD's future organizational structure could be dependent on the success of these centers and the distributed information processing concept.

c. Photography

(1) With the exception of digital cameras and printers, and increased use of instant photography, there are no anticipated technology breakthroughs in the photofinishing field. The major technical advances will be in greater and more consistent product quality through computer control and monitoring of production devices. This control will allow for greater productivity through the elimination of costly remakes.

(2) It is anticipated that increased demand for color photographic products will continue into the mid-1980's. Demand for black and white photography will probably continue to decline. Color computer graphics requirements will place a production demand on P&PD in both quantity of work and the timeliness in which that work is demanded.

d. Micrographics

(1) As updatable micrographics systems and videodisc systems gain wider acceptance for document storage and retrieval, the traditional source document micrographics production requirements as we now know them will decline. Large source document data bases will most probably be converted to videodisc, whereas smaller individual office data bases will probably be converted to micrographics. Some offices may utilize both systems.

(2) COM production will continue to grow through the mid-1980's. Computer graphics hardware and software systems will be utilized to a greater extent which will create a demand for graphics COM support. Introduction of small on-line COM systems for distributed processing at remote sites could impact production support requirements for a centralized facility such as P&PD. Additionally, COM will be used to support micropublishing, videodisc production, and Computer Aided Design (CAD) systems.

e. Design and Presentation

(1) Computer graphics and automation will play a large role in supporting the Agency's design and presentation requirements through the mid-1980's. There will be a greater dependency on systems such as the Dicomed Graphics Design Station and the Genigraphics system in DDI. In addition to these systems, graphics software wil be available on ODP's computer system. All of these systems will be interfaced with one another. Output will be produced by a graphics COM recorder, on-site plotters, Polaroid cameras, or color Xeroxes.

(2) There will continue to be requirements for large briefing boards, multi-media shows, motion pictures, and videotapes/discs, still photography support, and the maintenance of a portrait studio.

(3) Overall, there will continue to be a demand for P&PD services through the mid-1980's. The way in which the services are provided, however, and in some instances, the types of services requested, face drastic changes.

2.2 Prepress Branch

The recent reorganization of P&PD, consolidating the Composing Branch and Offset Photography Branch into a single Prepress Branch should facilitate the implementation of the planned Digital Prepress System by incorporating the different tradecraft skills needed to support the new system into a single functional component. Acquisition and implementation of the Digital Prepress System will be accomplished incrementally over the next three years. By the mid-1980's, all elements should be electronically linked and integrated into a complete system. Proposed system elements and the phased acquisition schedule is planned as follows:

a. Laser Platemaker

The first element of the Digital Prepress System will be an EOCOM Laserite V laser platemaker which will permit direct-to-plate imaging of pages and eliminate film and camera operator costs. The replacement of a seven-year-old APS-4 phototypesetter with a wide-measure APS-5-100 will provide the capability to image four-page flats for scanning directly by the laser platemaker.

b. Electronic Camera/Illustration Scanner

The electronic camera is a laser device that scans black and white original photographs or artwork and produces screened halftones for printing. Thus, the camera/scanner will allow the inclusion of pictures with text to be processed through the laser platemaker. The camera/scanner can be connected directly to the ETECS typesetting computer and photographic images can be stored digitally and merged with text for automated page makeup.

c. ETECS/Platemaker Interface

A digital interface between ETECS and the laser platemaker is the first electronic linking in the development of an integrated digital Prepress system. The interface will enable pages made up on ETECS to be passed electronically to the laser platemaker. Digital transfer reduces the use of resin-coated photographic paper, manpower used in prelaying, and the time needed to process jobs.

d. Color Scanner

Acquisition of a color scanner will enable Prepress to perform the separation of color pictures into the primary colors used in printing. A color scanner performs color separations much faster than is possible with the offset camera, and with an accuracy and consistency that cannot be matched using manual methods. As with the other elements of the electronic prepress system, output from the color scanner can either be film negative separations (for use in conventional production processes) or stored digital information which can be passed electronically to the laser platemaker.

e. Area Composition Console

(1) The final element of the Digital Prepress System will be the area composition console which will be digitally interfaced with the other elements of the system. The area composition console will draw text and graphics from on line storage and be used to interactively make up pages on a screen and pass the pages to the laser platemaker. By the mid-1980's, P&PD will have a fully interactive comprehensive Digital Prepress System in operation.

(2) In the mid-1980's, Prepress Branch will be studying the feasibility of digitally transferring graphic materials from Cartographic Design Center (CDC), OCO/DDI to P&PD. This would permit images created on the CDC computer map plotter to be transmitted directly to P&PD for reproduction.

(3) The overall automation of the Prepress Branch will provide a significant savings in resourcesat the same time, decrease job turnaround time.

(4) There are, however, many questions that need to be answered. It is true that the automation described above will save positions, however, there is still a problem with having sufficient personnel available to support three shift, seven day a week, operations. Additionally, system backup and system redundancy needs to be addressed.

2.3 Press Branch

The support requirements for traditional high quality printing will continue through the mid-1980's. Although use of electronic printing devices may offset this requirement somewhat, the automation of Prepress and the electronic interfaces will give the customer a high quality product in a reasonable turnaround time. Given this capability, the Agency's high quality printing requirements should continue for some time.

There are not any anticipated high technology changes for the traditional press operations in the next three to five years. Therefore, long range plans for the Press Branch will focus on updating the Branch's capabilities by replacing older equipment items. Initially, the replacement of a twenty-five year old single-color press with a 50-inch two color press will offer increased efficiencies and higher operating speeds for the production of large sized maps.

The acquisition of a four-color 40-inch press to replace two older 40-inch presses will offer an additional impression cylinder to the Branch, less paper handling, a reduced operating crew and higher operating speed.

Other equipment upgrading planned for the mid-1980's will be the replacement of the A B Dick duplicators with two 12 x 18 inch Heidelberg presses.

The addition of a universal web unit for the existing web press will allow the production of three-color maps and graphics on both sides of the paper to be included in web press jobs. To date, only one color (in addition to black) has been used in graphics produced on the web press, and this one additional color is now possible only at the expense of a 16-page black signature.

Plans to rebuild the paper cutter in the Press Branch and incorporate a micro-processor will enable sequential machine operations to be programmed in advance, eliminating the manual setting of the machine before each cut.

These equipment enhancements will allow the Press Branch to become more efficient in its overall operation.

2.4 Bindery Branch

Because most operations performed in the Bindery Branch still rely on labor intensive manual skills, future plans for this Branch will focus on updating present equipment with automated devices that will require fewer work hours for the operation and offer improved production speeds. The following equipment items have been identified to help achieve Branch goals:

a. Three-Knife Trimmer

The acquisition of a stand-alone semi-automatic three-knife trimmer will reduce trimming operations to one-third the number of cuts using the present single blade cutters, offering faster throughput time for publications work.

b. Automated Forms Padding Equipment

Adhesive padding of forms is now accomplished using a slow guillotine cutter and would be appreciably accelerated by using automated padding equipment.

c. In-line Laminating and Tab Cutting

Laminated index tabs are cut using hand fed cutters. The purchase of automated in-line laminating and tab cutting equipment would reduce manpower requirements and improve production speeds.

d. Automated Paper Cutters

Replacement of three power cutters with new equipment having programming capabilities and advanced safety features will improve paper cutting operations.

e. In-line Gathering and Trimming

In-line gathering and trimming for both perfect binding and side stitching will improve production speeds for these operations much as the saddle binder now does for FBIS production.

The equipment items listed above will automate as much as possible the last production element in P&PD's printing operation.

2.5 Other Printing-Related Plans

Division objectives for the mid and late 1980's will include studying the applicability of new technologies, possible consolidations, and relocation of some operations.

Among the possible new technologies is the direct imaging on the press cylinder from a front-end composition system. The system as presently envisaged would electronically position the page images on a press cylinder, similar to an image being held on a copier drum. Once the press cylinder is imaged and the press-run completed, the image would be electronically "erased" and the cylinder would be ready to receive the next series of page images for printing. There are no such systems yet in existence, but the concept presented is intriguing.

The consolidation of Press and Bindery operations into a single finishing operation will complement the combined composition and camera/stripping operations now incorporated in the Prepress Branch.

Finally, the relocation of hard binding operations near the library would make this service more responsive to the office for whom most hard binding is performed. Similarly, publication distribution would be expedited if this function were moved into closer proximity to the Mail and Courier Branch in the Headquarters Building. Excavation and renovation of the lower level of the P&PD building under the Bindery area would allow moving the web press and FBIS operations, as well as mailing operations, into this area, and alleviate floor space problems in the Press and Bindery areas.

2.6 Photography Branch

Under the previously mentioned P&PD reorganization, the Photography Branch was placed under the Office of the Production Manager. The Branch is responsible for production support in five major areas. These production areas include microfilm, source document filming and duplication, COM, black and white photofinishing, color photofinishing, and design and presentation support. The Branch also has an Administrative and Quality Control Staff.

In order to meet increasing customer demands, the Photography Branch must upgrade and expand its capabilities, provide quicker job turnaround time, develop greater technical expertise, renovate its production work areas, and develop a method for maintaining a staff of technically qualified personnel.

The following specific areas in the Photography Branch must be addressed in the next 1-5 years:

a. Micrographics Source Document Production Support

Micrographics source document production within P&PD and the Agency has declined over the past three years. Part of this decline is due to the fact that there are not enough people available to provide file preparation support for the various projects. Additional inspection quality control and reporting requirements have also placed a drain on personnel resources, thereby causing a decline in overall production.

The micrographics industry ~~itself has not~~ provided much in the way of automated equipment for the production of micrographics. This, in turn, with the additional reporting and inspection/quality control requirements, has affected micrographics production.

Rumors of digital or video disc replacements for micrographics information handling, storage, and retrieval have caused components to delay implementation of micrographics systems. Additionally, micrographics has not been pushed by Agency management as a possible solution to some of the information storage and retrieval problems.

In view of all the above, however, micrographics is still one of the most cost-efficient means of storing and retrieving large volumes of information. Micrographics, when merged with a computerized index and retrieval system, offers a very viable alternative for information handling problems. It is still a growth industry (in excess of 15 percent per year) which is developing new uses for its product.

There remains a voluminous amount of material within the Agency that lends itself to conversion to

micrographics. Given the correct systems development and adequate production support, micrographics can provide a viable cost-effective alternative for the storage and retrieval of this material. In addition to this support, users need to be educated in the uses of micrographics.

Another area that may have a dramatic impact on P&PD's support to the micrographics production requirements is the possible consolidation of the Agency's four major micrographics production facilities.

b. Computer Output Microfilm (COM)

The COM operation in P&PD is treated as a separate microform function within the Photography Branch because of the complexity of this system, and the need for a select work force that will remain dedicated to this operation. Presently there are five technicians working in the COM area who are responsible for COM production and maintenance of the system. The recent acquisition of a Dicomed 48C Graphic COM recorder allows customer input from tapes generated in the Office of Data Processing, as well as floppy discs generated on the Dicomedia Graphic Terminal in P&PD's Design and Presentation Center. This input is used to produce high quality computer graphics output in both color and black and white.

As more and more components develop computer data bases, the need for COM as an efficient, cost-effective method for handling the proliferation of reports will continue. To ease customer access to COM facilities, P&PD must work with the Office of Data Processing (ODP). One area for improvement would be the establishment of a data link between ODP and P&PD which would increase the availability of COM to the user and decrease the COM production turnaround time. To fully utilize the ODP/P&PD data link, P&PD should acquire COM equipment that provides a direct on line/off line interface to ODP's IBM VM computer system.

In order to relieve some of the source document production burdens, P&PD should develop micropublishing capabilities on the new graphics COM recorder. By taking output from P&PD's Electronic Text Editing and Composition System (ETECS) and going directly to the graphics COM recorder for micropublishing, several work

hours in file preparation and microfiche titling would be eliminated.

As the goals and objectives set for COM applications are accomplished, capabilites of the system will expand to include computer modeling, simulation applications, and animations with output on either 35mm color slides, 16mm motion pictures, or video discs.

c. Black and White Photography

(1) The black and white production area is divided into separate production areas. These two areas produce photo products that differ in both quality and quantity. In the first instance, the roll easel section is responsible for the production of large quantities of good quality 5"x7" and 8"x10" photo prints. The other area, the custom print section, produces singular quantities of photo prints and film products. These lesser quantities are not a reflection on this section's ability to produce large numbers of photo products, but indicates this section's responsibility to produce the highest quality photo prints possible.

(2) Requirements

Requirements for black and white photographic products have diminished to some extent in recent years. This is in part due to advanced technology in the areas of quick-copy and in color photographic processes. However, the need still exists for black and white photography, and will for the foreseeable future.

Although there is a continuing need for this black and white service, there are some indications that photo printing in the black and white medium will eventually give way to the color prints products, or some electronic camera storage device. A complete transition during this projection period is not anticipated, but there should be a steady erosion of this section's product output.

d. Color Photography

The color lab has been an area undergoing dynamic change. This area over the past few years has been deluged with an ever expanding work load. The staffing in this section has been expanded to accommodate this increase and there is a possibility, if this growth continues, more personnel may be needed. In the past two years this operation has been working on a three shift basis. The staffing for these additional shifts was provided by the color lab itself. There are, however, two additional personnel assigned to the lab who are presently training on the day operation.

Staffing and equipment requirements are the major problems confronting this area. Staffing, because of the extensive training requirements, and equipment because of the accelerated wear caused by the three shift operation.

The color lab is presently undergoing extensive renovations to provide for automated equipment installation and a more efficient work flow. This renovation will take at least one year to complete.

e. Design and Presentations (Audio Visual)

The design and presentations group has a complement of seven professional graphic artists and three audio visual technicians. Although there is a marked diversity in the professional make up of this group, future programs dictate that a progressive amalgamation will occur, and an interdependency on related skills will promote a more professional service than is presently available.

(1) Design and Presentations Area

The recent acquisition of the Dicomedia color graphics terminal for Design and Presentations Area offers a new production medium for this component. This system will eventually provide electronic graphic support to all Agency components. This system will also compliment the needs of both the artist and technicians in the development of audio visual slide shows. The Dicomedia system provides the first inroad into automating the P&PD graphic artist environment.

As the Agency's computer graphics requirements continue to grow, additional Dicomedia work stations, as well as system software enhancements, will be necessary. There will be the need for a color hard copy device attached directly to the Dicomedia System. An electronic interface between ODP and P&PD will be necessary for the purpose of automatic downloading of statistical information and preliminary graphics from the ODP computer system to the Dicomedia graphics design station. A direct interface between the Dicomedia graphics design station and the Dicomed COM recorder will also be beneficial for improving customer service.

D&PC should have an increased proficiency at AV presentations to include 15-projector capability, efficient portability, and improved sound reproduction. With Audio Visual Communications Center (AVCC) personnel being utilized for out-of-Division office operations, D&PC designers should be cross-trained on AVCC equipment to backstop presentation requirements. Additional PB personnel should also be competent on D&PC's Dicomedia II to backstop increasing slide demand (these personnel should have some graphic or commercial training). D&PC should have completed a microfiche system of storing slide images.

D&PC should be able to maintain the space that is now occupied without additional requirements. New organizational ties with the AVCC, however, may call for a redefinition of the utilization of existing spatial arrangement. In addition, the Dicomedia II system may expand in physical or activity size to command more space for its function.

The total number of personnel for D&PC is not expected to change during this projection period. However, two new designers will probably need to be recruited and hired due to attrition or transfers prior to 1987.

(2) Audio Visual

The P&PD Audio Visual (A/V) Center, which traditionally has been involved in the production, duplication and processing of motion picture and audio sound tracks, has recently expanded its operation to include video tape replication. Although the 3/4" video tape format is presently the more popular, it is expected that requirements for the 1/2" format will

exceed 3/4" requirements by 1983. Additional equipment acquisitions will be necessary to meet the increased video tape replication requirements.

In order to meet customer security and job turnaround requirements and reduce outside contracting costs, P&PD will have to acquire and install a color motion picture processor. Equipment enhancements are also necessary for producing the audio portions of multimedia slide shows.

As the number of services provided by the staff increases, it will become necessary to augment the current level of staffing. Reconfiguration of space will also become necessary as additional equipment is acquired.

The capital investment requirements of the Audio Visual area will most likely be more extensive. This area, unlike the Design and Presentation area, is dependent on equipment and systems that are in a continual state of change. These systems, for the most part, are linked to the electronic era and the future expense incurred will reflect the need to meet the requirements of faster turnaround of a more sophisticated product.

f. Quality Control

Because P&PD produces products that are used by the highest level of government officials, the consistent high quality of those products is of paramount importance. In order to consistently provide high quality products the Photography Branch's Quality Control program should be enhanced. The senior quality technician should test all chemistry, both in preparation and in its use on a regular basis. Presently this is not done because most of the senior quality control technicians' time is spent troubleshooting problems and helping to maintain the daily operations in the lab. The senior quality control technician should also be responsible for all research and development that will help the photo lab maintain its modern approach in the production of photo products. In order to carry out these tasks, the quality control function should be staffed with a senior technician, an assistant quality control technician and a chemical mix technician. This assistant would be responsible for all chemical mix

functions and would also help the senior quality control technician in monitoring all equipment. This person will work full time in this position and will not be assigned to other unrelated duties within the photo lab.

The third person on the quality control staff will be a photo lab maintenance technician. This person must be given the responsibility for full time maintenance work in the photo lab. This person will attend to all mechanical/electrical problems and will also have access to all equipment in the Division's maintenance shop. This person will work closely with the senior quality control technician in the design and updating of work areas and will also help eliminate the small problems that are difficult to cover.

2.7 Office of Management Support

a. Plans, Programs, and Systems Staff

(1) The P&PD Plans, Programs, and Systems Staff (PP&SS) is the component which is most responsible for developing the various plans, programs, and production systems that are necessary for the Division to accomplish its mission.

(2) A primary responsibility of the staff during the next 1-3 years will be to study and recommend systems for the continued automation of the printing and photography production operations. These systems will include: a) a digital prepress system; b) automation of Press and finishing operation; c) the initiation and implementation for more electronic interfaces between P&PD and its users; d) the anticipated support requirements of video disc production for information storage and retrieval; e) greater utilization of computer graphics systems; and f) a direct on-line interface between ODP and P&PD's COM system.

(3) A major study is nearing completion on P&PD equipment maintenance support programs. This study will more than likely recommend an automated data base for the establishment of a preventive maintenance program, an equipment maintenance history program, and an equipment parts inventory.

(4) P&PD Management Information System (MIS)

a) P&PD has a requirement to keep administrative records of supply activity, maintenance activity, budget data, printing and photography production work, training records, and other miscellaneous administrative records. Supply activity and production work are currently being handled on the P&PD minicomputer-based MIS, but several enhancements to existing software will be required during FY82-FY86 in order to maximize system utilization and efficiency. Maintenance activity, budget data, training records, and miscellaneous administrative records will be added to the MIS during FY82-FY86 in order to provide greater flexibility in information handling.

b) The P&PD MIS will also be used for measuring employee/Division productivity and the management and utilization of resources.

c) With an annual supply budget and usage of over two million dollars, the P&PD MIS will also be used to measure and control material waste.

(5) Copier Management:

Having the responsibility to administer an Agency-wide Copier Management Program, P&PD is committed to the development and implementation of programs that will ensure the cost effective and efficient utilization of copiers, copier equipment, and related supply items. These programs must be carefully designed, comprehensive and thoroughly coordinated with all key administrative elements within the Agency to ensure that the goals of the program are obtained without restricting the availability of required services. A comprehensive program will require:

a) Development of specifically defined requirement packages and an extension of these requirements into requests for competitive bids for copier rentals and purchases. Such a contract resulting from bids could be written to extend for as many as four years, thus avoiding the yearly expenses associated with year-end equipment changes and contract renewals. This type of contracting arrangement would also permit more accurate budget planning and avoid some of the administrative burden placed on the Office of Finance.

b) Development and implementation of a comprehensive equipment purchase and life-cycle costing plan to ensure that copier purchases are made in the overall best interests of the Agency. Effective and efficient operation of the Copier Management Program depends, to a large degree, on obtaining and maintaining flexibility to move copying equipment from one location to another as requirements change. To obtain this flexibility, the Agency must arrive at and maintain a proper ratio mixture of owned and rental copying equipment. An improper balance will prevent full life-cycle use of owned equipment and create unnecessary rental requirements, thereby decreasing the efficiency of the program.

c) Development of a statistical data base on the cost and consumption of expendable supply items for copiers. Accurate figures on the cost and comsumption rate of supplies by vendors will provide a basis from which Blanket Purchase Agreements (BPA) can be developed. Through the use of a BPAfor copier supplies, the Agency can reduce supply shelf inventories, realize an overall reduction in copier supply costs, and reduce copier maintenance requirements through uniformity in supplies.

d) Realignment of copier equipment to requirements. A realignment of existing copying equipment to existing copying requirements and removing excess and/or inefficient equipment will provide a sizable reduction in the Agency's annual copier budget. As copier technology continues to improve, this requirement will become increasingly more important to the operation of an effective and efficient program to serve the Agency's copying needs.

(6) Nearly all the programs outlined above require personnel with Automatic Data Processing (ADP) knowledge and expertise. PP&SS and P&PD are limited in the number of employees available with ADP expertise. There needs to be additional personnel with ADP expertise assigned to PP&SS to support the requirements of the staff and the Division, and to train other P&PD personnel in the operation and use of ADP equipment.

b. Logistical Support Staff

(1) The Logistical Support Staff will continue to play an important role in supporting the material needs and operational requirements of the P&PD. The constantly rising cost of consummable supplies and the diminishing source of some raw materials are factors contributing to higher operating costs and continuing emphasis on improved management techniques and innovative technologies.

(2) In the management area, the Supply Cost Projections Report has been developed as an MIS enhancement. This report provides a more realistic projection of supply usage and related costs, thus allowing more flexibility in planning long-range supply acquisitions and budget reprogramming. The report had met with initial success in late FY-81, and may serve as a model for other OL components.

(3) The Office of Logistics has developed a standardized property accountability system known as the Agency Standard Automated Property System, or ASAPS. Inclusion of P&PD's property accountability data base into the OL system is high on the priority list.

(4) It is anticipated that a project of developing an automated monthly budget reporting system based on Requisition and Sub-Object Class (SOC) input will be realized during this 5-year time frame.

(5) Due to problems with GSA to the P&PD building, LSS in conjunction with PP&SS, will monitor GSA support and develop a P&PD on the eventual take over of the operation and functions of the building.

(6) Along with the Division's responsibility for printing and photography and copier management functions comes a tremendous procurement acquisition/contracting responsibility. As LSS takes on more and more of these responsibilities, it becomes obvious that an individual experienced in procurement/contracting procedures is needed to support this requirement. Depending on the extent of the requirement, an OL Procurement Division employee should be assigned either full or part-time to LSS.

c. Administrative Staff

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Tasked with the management of over [redacted] people and three different pay scales, P&PD relies heavily on the Administrative Staff to help manage the personnel system. Some of the statistical data and tracking of training courses could be placed on the P&PD MIS. This automation of record keeping would relieve some of the burden on the staff.

2.8 Other P&PD Requirements

a. General ADP Requirements

The future requirements of P&PD in the general ADP area should focus on providing management with timely information to assist in the decision making processes, and additional support in the production areas of Prepress, Bindery, and COM. The emerging technology of the 1980's in composition, page makeup, merging of text and graphics, and laser imaging should enable P&PD to perform its mission in a more cost effective manner; however, a commitment of both financial and human resources will be required to keep pace with new developments in these areas.

b. Space Requirements

(1) The Printing and Photography Building became operational in 1967. Since that time, the building and its personnel have had to adjust to constantly increasing requirements; newer, bigger, and faster equipment to meet these requirements; and numerous internal physical and utilities changes to complement equipment and changing production procedures. The net result is that the building has been experiencing more maintenance problems and running out of space.

(2) Plans for a laser platemaker, a 50" 2-color press, and possibly a 40" 4-color press within this 5-year time frame are factors which will also impact upon the already crowded conditions and require additional upgrading of building utilities. A utilities requirements study may be necessary to assess the building's current capabilities in relation to planned future equipment acquisitions and the changing technologies evidenced in state-of-the-art equipment.

(3) The increasing requirements for video replication and other audio-video services are taxing the physical limits of the Audio-Video Communications Staff, Photography Branch. Escalating demands for color photography and processing may realize some relief in approaching years as the 6-year old Color Lab renovations project finally is showing some positive signs of actually starting.

(4) The COM Center located in GJ-4004, Headquarters, is another P&PD facility that is overcrowded with equipment in a small physical environment. This area has been plagued with temperature and humidity extremes, factors which severely impact upon the equipment and result in serious production backlogs. The sensitivity of this equipment requires a controlled environment for successful operation, but this has not always been available due to the dependence upon GSA for building services.

(5) New equipment - presses, platemakers, color scanners, dissemination addressers, video tape replicaters, audio-video expansion - will continue to eat up available space and require additional upgrading of building utilities.

(6) A 1981 Health and Safety Survey identified the need for noise suppression measures in the press and bindery areas. Absorption materials need to be installed on the ceilings and/or walls to meet future OSHA requirements.

STAT (7) Supply storage continues to be a problem, necessitating daily trips to [redacted] Recent surveys and investigations have identified inadequate storage and safety facilities, particularly in light of hazardous chemicals and solvents.

(8) The possibility of a new building on the Headquarters compound, with approximately 3000 employees now resident in suburban rental facilities, gives rise to speculation that P&PD's workload might increase by a measurable amount. This would undoubtedly have an impact upon our present space and equipment mix. One possibility for meeting any dire space requirements is the excavation of approximately 10,000 sq. ft. of crawl space under the south end of the P&P Building.

Section 3 Goals and Objectives

3.1 Division Wide

P&PD will continue to support the Agency's information output production requirements in the most efficient manner possible. This support will require large capital investments to acquire state-of-the-art equipment and investments in personnel training to develop and operate these new sophisticated systems. P&PD equipment and systems will remain on the leading edge of the information production technology. In order to continue a high level of support, P&PD management and staff personnel will have to anticipate changes in technology and customer requirements and develop systems to meet the requirements. P&PD will become more efficient in overall operation through the use of its Management Information System (MIS). Specific Division wide goals and objectives for the next 1-5 years are as follows:

- Improve the Division's capability to produce time-critical intelligence through the use of advanced technology processes, and equipment to reduce labor intensive production methods, material waste and costs, and job throughput time.

- Work with DDI/OCO in the planning for and acquisition of new systems that will be used to support requirements for the production of intelligence publications.

- Develop a greater P&PD personnel expertise in Automatic Data Processing (ADP).

- In conjunction with the ODP and the Office of Communications (OC), define requirments, identify equipment, and provide support for Remote Information Media Centers to be located in Agency buildings throughout the Washington Metropolitan area.

- Develop automated MIS programs to measure employee and Division productivity and material waste.

- Continue automating production systems whenever and wherever possible.

- Work with ODP in developing electronic interfaces between users equipment, the ODP Computer Center, and P&PD production equipment.

- Acquire and utilize electronic printers to provide quick response to the Agency's information output requirements.

- Train P&PD production planners on the existence, capabilities, and locations of various output media facilitiies available to Agency customers.

- Provide DDI/OCO Publications Division with equipment and technical support to respond to their requirements in the most efficient manner.

- Keep abreast of technology changes and anticipate customer requirements.

- Re-examine organizational and functional alignments to efficiently utilize newly acquired technology.

3.2 Prepress Branch

The primary goal of the Prepress Branch over the next 1-5 years is the incremental implementation of a digital prepress system. The following goals outline the implementation of this system:

- Develop the personnel expertise for the operation and implementation of a digital prepress system.

- Purchase a laser platemaker to reduce silver base film costs and eliminate camera and processing labor. (EOCOM Laserite V, 1982, $170,000)

- Replace APS-4 phototypesetter with an APS-5-100 pica typesetter and in-line RC processing capability. (1982, APS-5-100 - $112,320, processor $23,750)

- Purchase ECRM Autokon 8400 to supply halftones for laser platemaker production. (1982, $36,500)

- Digital interface Autokon 8400/Atex front end typesetter for text and graphics capability. (1983, $100,000)

- Color scanner will permit accurate and rapid production of color separations. (late 1983, $350,000)

- Area composition system will link all foregoing into interactive digital prepress system. (1984, $500,000 - $1,000,000)

- Full implementation of the Bi-sync data link to allow for two-way transmission of data between ETECS and ODP's VM/370 system. (1983)

- Digital transfer of DDI/OCO/CDC graphics materials to P&PD. (1985, $100,000)

3.3 Press Branch

- Replace 50-inch single color press with high speed 2-color, 50-inch press. (1983, $312,000)

- Replace two 40-inch presses with single 4-color, 40-inch press. (1984, $500,000)

- Replace duplicators with 12 x 18 Heidelberg presses. (1985)

- Update and automate paper cutter. (1985)

- Add universal web unit to web press to add 3-color capability. (1986)

3.4 Bindery Branch

- Purchase 3-knife trimmer. (1982 $100,000)

- Automated adhesive bindery equipment. (1983)

- Cutting and laminating equipment for index tabs. (1983)

- Replace and automate 3 paper cutters. (1984)

- Purchase an in-line gatherer and trimmer. (1985)

3.5 Joint Printing Branch Goals and Objectives

- Direct imaging of press cylinders from prepress front end system. (1985)

- Consolidate Press and Bindery Branches into a single component. (1986)

- Study the feasibility of relocating hard binding to library area and dissemination to Mail and Courier Branch.

- Study the feasibility of moving the web press and mailing operations or the LSS function to lower level areas to be excavated under Bindery.

3.6 Photography Branch

In order to satisfy the Photography Branch's production support requirements, the following specific goals and objectives must be addressed in the next 1-5 years:

a. Source Document Microfilming Support

- Reevaluate Agency backlog, present and future requirements for source document microfilming. Determine requirements for microfilm conversion and what impact, if any, other storage mediums (digital, video disc, etc.) will have on those requirements. (1982)

- Once requirements are determined and validated, identify the equipment and resources necessary to support those requirements. (1982)

- Seek and renovate floor space as necessary in order to support the Agency requirements.

- Continue to support an Agency-wide consolidated production facility.

- Provide the file preparation support necessary for those applications that have been approved for micrographics production.

- Provide systems analysis, production, and file preparation support for new applications.

- Participate in Agency seminars which educate the people in the use of micrographics.

- Seek automated production capabilities through existing micrographics vendors or have an organization such as the Census Bureau develop automated production equipment.

- Handle FPMR reporting requirements through the P&PD automated Management Information System.

- Seek more efficient methods to comply with the FPMR inspection quality control procedures.

- Keep abreast of technology changes as they pertain to the production and utilization of micrographics.

b. Computer Output Microfilm (COM) Support

- Implementation of Dicomed COM support for Agency Disspla/Tellagraf graphics software users. (Should provide 24-hour turnaround time for priority customers requesting 35mm slides.) (1982)

- Provide 24-hour turnaround time for alphanumeric COM customers (now averages 8 days). (1982)

- Develop an action plan and acquire appropriate equipment for supporting 4C Project (5 million images per year). (Implementation between April and September 1982)

- Implement the ODP/P&PD COM data link. This will begin with stacking multiple jobs on tape in the Ruffing Center by September 1981. By June 1982, there should be a tape drive installed in the COM Center. Implementation of this project will eliminate paper work and should decrease turnaround time. Future enhancements (1982-1984) should include a direct on-line interface between the COM systems and ODP.

- Identify and acquire replacement equipment for Datagraphix Auto COM. (1982)

- Software enhancements for Dicomed to make it more compatible with Datagraphix and to provide increased capabilities such as a Versatec translator. (1981-84) ($5,000 - $40,000)

- Possible Dicomed hardware upgrade 6250 BPI tape drives; on-line/off-line interface (see a-4); color microfiche capability; and 80 mm film capability. (1981-85) ($50,000 - $200,000)

- Micropublishing capability from tapes generated in Autologic Phototypesetter format. Initially, all micropublishing will be accomplished in the Newton Bold Font. Additional fonts should be incorporated in the future.

- Installation of a data link from ETECS to COM to support all micropublishing applications. This will

eliminate the need for generation of tapes in APS format.

- Augment present staff to support increased COM requirements.

- Renovate Headquarters COM Center to facilitate the installation of additional equipment and provide for a more efficient work environment.

c. Black and White Photography

Black and white photography goals and objective for the next 1-5 years will mainly consist of equipment automation and enhancement. The following are the equipment acquisitions that are necessary to support the Agency black and white photographic requirements.

- Replacement for an existing 8 x 10 Copy Camera.

- Acquisition of a large format enlarging system.

- Acquisition of larger and faster film processing system.

- Update existing contact printing

- Acquisition of new 70mm camera/process units (digital).

- Acquisition of print scanner camera.

- Acquisition of computerized black and white printer processor units.

- Acquisition of high-speed copying systems.

d. Color Photography

- Complete Color Lab renovations

- Increase staffing to meet customer requirements.

- Extensive equipment purchases for replacement and automation of production processes.

e. Design and Presentations Center

- Expand the use of computer graphics in support of the Agency's design and presentation requirements.

- Develop and implement an electronic interface between the Dicomedia Graphics Design Station and ODP's VM computer system.

- Interface Dicomedia with a Color Xerox or a Dunn/Matrix Camera for quick turnaround hard copy output.

- Acquire a direct on line interface between the Dicomedia Graphics Design Station and the Dicomed COM Recorder.

- Acquire a Polaroid Vu Graph adapter for the Itex Camera Processor.

- Purchase and install a 16mm color motion picture processor.

- Expand video tape replication facilities to include more 1/2 inch recording capability, film-to-tape transfer capability and editing capabilities.

- Develop in-house video tape Kinescoping capability.

- Cross train employees between the Audio Visual and Graphics units.

- Augment staffing to support increased production requirements.

f. Quality Control

- Increase in personnel strength of the Quality Control Unit and develop a greater quality control expertise within the Photography Branch.

g. Overall Photography Branch

- Continue to seek new methods of automating Branch production processes.

- Develop an apprenticeship program for Branch employees that is comparable to the printing production branch's.

- Continue to cross-train Branch employees so that the workforce can respond to variations in work requirements throughout the Branch.

- Develop a greater photographic system technical expertise among several Photography Branch personnel.

3.7 Plans, Programs, and Systems Staff

a. Division-Wide Projects

- Define requirements, research hardware/software capabilities, make equipment recommendations, and plan implementation of a digital prepress system. (1982-85)

- Monitor GSA support to the P&P Building and develop a P&PD position on the maintenance and operation of the building. (1982)

- Provide recommendations on the P&PD COM support to 4C, and other Agency COM applications. (1982)

- Develop a mechanism for monitoring employee productivity through the P&PD MIS. (1982)

- Develop a mechanism for monitoring material waste throughout the Division. (1982)

- Develop a greater personnel expertise in ADP. (1982-83)

- In conjunction with ODP and OC develop a P&PD position on support to Remote Information Media Centers. (1982-83)

- Administer and streamline the Agency Copier Management Program. (1982-85)

- In conjunction with Photography Branch, develop an Apprenticeship Program for Photography Branch production personnel. (1982-83)

- In conjunction with Photography Branch develop and make recommendations on P&PD support to video disc production. (1982-85)

- In conjunction with LSS, study and make recommendations on a a preventive maintenance program for P&PD. (1982-83)

- Develop and implement a plan for the P&PD MIS operation support to be turned over to the Office of the Production Manager. (1982)

- In conjunction with ODP, develop more electronic interfaces between P&PD/ODP and Agency users. (1982-85)

- Pursue the utilization of electronic printers to satisfy some of P&PD production requirements. (1982-83)

- Determine P&PD requirements, if any, for the Xerox 9700 composition/graphics software package being installed by ODP. (1982)

b. Copier Management

- Develop requirement packages for competitive bid copier contracts.

- Develop and implement a life-cycle purchase plan for copiers.

- Realign copier equipment based on requirements and reduce the total number of units relative to requirements.

- Develop and implement a program for monitoring and forecasting supplies costs and consumption.

c. Management Information System (MIS)

The following specific goals will be addressed to meet requirements for automation of administrative functions during FY82 - FY86:

- Modification of existing supply software to include improved supply reporting and improved data entry menu mechanisms.

- Modification of existing printing and photography production job software to include new job databases for expansion, improved job reporting and improved data entry mechanisms.

- Addition of a second disk drive for the MIS, and modification of the existing drive to increase system performance, provide disk to disk backup, and to meet future storage expansion.

- Addition of a P&PD budget handling database, and software to include reporting of monthly budget data by sub-object class.

- Addition of a P&PD training database and software to include recording of training for all P&PD employees.

- Addition of a P&PD database to handle miscellaneous administrative records necessary to the function of P&PD.

d. ADP Support

(1) Information Systems

- Redesign and enhancement of the Agency Copier Management System to allow for the flexibility required due to the centralization of the Copier Management Program.

- Implementation of an equipment maintenance system that will allow the Maintenance Section to schedule preventive maintenance on the various equipment in P&PD. System should have provisions for generating work orders for PM and recording both the scheduled and unscheduled maintenance history of each piece of equipment. This will allow for the projection of replacing equipment with a record of inordinate amounts of unscheduled maintenance and down time.

- Integration of the MIS into LIMS. Current system should be used to capture input transactions, and interfaced to LIMS for data storage and report generation. This will take the load off of the mini-computer based system and allow for on-line query capability against the LIMS data base.

(2) COM

- In conjunction with Photography Branch, support the installation of a COM Data Link. Phase 1 will allow the 'stacking' of like jobs on a single tape to decrease tape handling.

- In conjunction with Photography Branch, support the installation of on-line COM recorders capable of being driven by the extended channel concept employed by the COM data link. This will require an additional controller to drive both the on-line recorders, and a tape drive located in the COM Center. Result will be decreased turnaround time, and decreased tape handling for all COM jobs.

- In conjunction with Photography Branch, develop a micropublishing capability from tapes generated in Autologic phototypesetter format. Initially, all micropublishing will be accomplished in the Newton Bold font. Additional fonts should be incorporated in the future.

- In conjunction with Photography Branch, support the installation of a data link from ETECS to COM to support all micropublishing applications. This will eliminate the need for generation of tapes in APS format.

(3) Prepress

- Full implementation of the bi-sync data link to allow for two way transmission of data between ETECS and ODP's VM/370 system.

- Installation of a laser platemaker capable of imaging plates from data in the Autologic Phototypesetter format.

- Full page makeup of all ETECS jobs to support laser platemaking, and the elimination of the stripping and offset photography processes.

- Installation of color and/or black and white scanner to digitize graphics.

- Ability to merge both text and graphics in page format prior to on-line transfer to laser platemaker.

e. Space

- Conduct a study of present P&P Building utilities capabilities as a means of identifying future upgrading requirements to meet anticipated equipment needs.

- Continue to identify future equipment needs, and their impact upon present/future utility capacities in order to provide sufficient lead time for required upgrading.

- Request the assistance of HEB/RECD/OL in identifying present P&P Building utilities.

3.8 Logistics Services Staff

- Refine the Supply Cost Projections Report as a reliable and accurate management tool. (1982)

- Provide the necessary support to other OL components in developing their own Supply Cost Projection Reports. (1982-83)

- Input the P&PD Property Accountability Records into ASAPS. (1982)

- Develop an accurate automated monthly budget reporting system based on Requisiton and SOC input data. (1982)

- Develop other supply records which will provide data on: trends in stock usage; percentage increases/decreases in cost over a selected period of time; and current and projected on hand/on order balances. (1982-83)

- In conjunction with PP&SS, develop a preventive maintenance program for P&PD production equipment. (1982-83)

- Support PP&SS efforts in developing a P&PD position on the operation and maintenance support of the P&P Building. (1982)

- Identify requirements for contracting officer support to P&PD. (1982)