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DATA MANAGEMENT SYSTEMS ANALYSIS:
FINDINGS AND RECOMMENDATIONS

FINAL TASK 3 REPORT

(LMI Task 76-16)

June 1977

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LOGISTICS INSTITUTE
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PREFACE

The Office of Economic Adjustment (OEA) within the Office of the Assistant Secretary of Defense for Manpower, Reserve Affairs and Logistics (ASD(MRA&L)) serves as the staff arm of the President's Interagency Economic Adjustment Committee (EAC). The office is responsible for organizing and coordinating the Federal government's response to communities affected by Defense base closures, reductions, or buildups.

The Logistics Management Institute (LMI) has a contract with OEA under Task Order SD-321-57 Revised (LMI Task 76-16) with two principal objectives: (1) to design a data management system that would allow OEA to respond rapidly to inquiries from the White House, Congress, State Governors and the press, as well as to improve *internal management* of project activities; and (2) to develop a project management manual to be used by OEA Project Managers and Regional Directors in carrying out their economic adjustment function. The study is divided into four tasks. Tasks 1 and 2 are to conduct a preliminary review of current OEA activities and reporting requirements and prepare a work plan. Task 3 is to design a data management system for OEA, specify requirements for alternative processing concepts, specify and evaluate the alternatives and recommend a preferred concept; Task 3A is to develop a project management manual. Task 4 is to develop system specifications necessary for OEA to proceed with the implementation of the data management system.

This report is submitted to fulfill the requirement for a Final Report for Task 3. There are five sections: (I) an introduction which provides *background information* and addresses OEA's data management problem and the objectives of the task; (II) a discussion of the existing case—the present reports and procedures that OEA uses to provide management information; (III) a discussion of the proposed case—the proposed reports and procedures that OEA would use to provide management information; (IV) the definition of

initial system requirements and final system criteria and an evaluation of alternative processing concepts; (V) conclusions from the comparison of alternatives and recommendation of a preferred processing concept.

The LMI team consisted of Messrs. Robert K. Wood and Craig A. Webster and Mrs. Lacy S. McBride, who participated in all phases of the analysis and design. Dr. Marco R. Fiorello provided many helpful suggestions for the conduct of the study and assistance in specifying system requirements, criteria, and alternatives. Dr. Josephus O. Parr, Dr. Fiorello, Mrs. Jeanne M. White, and Mr. Robert Weiner contributed their knowledge of data processing and computer systems analysis and were always available to answer questions and provide helpful comments. Mrs. White also prepared Appendix D. Mr. Steven Chanin of Index Systems, Inc. served as a consultant, assisting in the evaluation of alternative data processing concepts. Mr. Wood directed the study for LMI.

LMI greatly appreciates the exceptional cooperation, receptiveness and time willingly provided by OEA management and staff: Mr. William J. Sheehan, Director of OEA, Dr. John E. Lynch, Director of Program Operations, Col. William Y. Epling, Director of Program Development, Mr. Roger S. Sattler, Director, Mid-Atlantic Region, and Mr. Wallace B. Bishop, Jr., Ms. Pamela A. Doyle, Mr. Earl Godfrey, Mr. Harry S. Levy, Mr. David MacKinnon, Ms. Helene O'Connor, LTC Jerome R. Pearing, Mr. Paul Sage, and Mr. Robert L. Wrigley of the project management staff. We extend particular thanks to Mr. Thomas P. (Pete) Ruane, Deputy Director, Mr. Thomas H. E. Winshurst, Assistant to the Director and Mr. Robert M. Moliter, Acting Director of Program Management, each of whom served at different times as Technical Representative for our contract, for their guidance, suggestions, and strong support.

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I. INTRODUCTION

A. Background

The Office of Economic Adjustment (OEA) within the Office of the Assistant Secretary of Defense for Manpower, Reserve Affairs and Logistics (ASD(MRA&L)) manages approximately 60 economic adjustment projects which have resulted from military base reductions, closures, or buildups. Each project consists of about 100 development action items or milestones to be carried out by community organizations, State agencies, and OEA and other Federal agencies. This report addresses the data management requirements of projects associated with base reductions and closures. Projects associated with the impact of military buildups (growth impacts) are infrequent and were not considered.

In the recovery process associated with base reductions and closures, OEA Project Managers are responsible for:

- Helping communities organize for the recovery process
- Organizing, conducting, and reporting on an initial economic survey and community visit to: collect economic impact data, make a preliminary assessment of the impact, and develop a preliminary strategy
- Organizing, conducting, and reporting on a Federal Team visit to the community with representatives of other Federal agencies (members of the President's Interagency Economic Adjustment Committee (EAC) for which OEA acts as staff) to: meet with State and local officials, draw up a recovery strategy, and identify particular development action milestones in the areas of industrial development, transportation, health, education, recreation and tourism, etc.

The Project Manager is assisted in these activities by an OEA Regional Director in the field. The Regional Director pursues local, State and Federal (regional) contacts, while the Project Manager pursues Federal (headquarters) contacts. Following completion of the Federal Team report, primary responsibility for a project is transferred from the Project Manager to the Regional Director, who then follows up on the development action items, trying to expedite and coordinate the diverse adjustment activities. These

activities can involve property disposal by the military departments, property acquisition by the community, industrial solicitation and grant applications, for none of which OEA has direct responsibility.

B. Professional Staff

The OEA professional staff consists of about ten Project Managers and Assistant Project Managers in Washington, D. C. and five Regional Directors in the field (Boston, Washington, D. C., Atlanta, Kansas City and Los Angeles). The staff is organized into three Directorates - Program Operations, Program Management, and Program Development. Each Directorate is heavily involved in project management activities. Outside inquiries for project status information, for example, from the Congress, the White House and the press, are answered primarily by the Director, OEA and the Assistant to the Director. The Deputy Director is most concerned with day-to-day operations and management of the staff.

C. Statement of Problem

Current information on the status of an economic adjustment project is not readily available to OEA managers and staff in an organized and condensed form. OEA managers thus find it difficult to: respond to inquiries about projects in a timely and thorough manner, provide current project status information to other participating Federal, State and local organizations on a regular basis, and supervise staff project management activities. The lack of current information also hampers Project Managers and Regional Directors in planning and keeping abreast of their project management activities.

D. Task Objective

The objective of Task 3 is to design a data management system which will provide current project information in a systematic manner to assist OEA managers and staff in overcoming the problems identified above. LMI examined OEA's existing reports and procedures for collecting and disseminating project information (Section II), proposed new

formats and procedures (Section III), defined requirements and criteria for judging alternative processing concepts and specified and evaluated those concepts (Section IV), and recommended a preferred processing concept (Section V). Detailed system specifications will be covered in LMI's Task 4 Report.

II. EXISTING CASE

A. Annual Status Report

OEA presently publishes an annual status report for each of approximately 60 projects. It consists of five to seven pages of information prepared by Project Managers or Regional Directors. (A sample annual status report is included in Appendix A.)

The report contains four sections:

- An identification section, containing the name of the impacted community, the date the project was initiated, a synopsis of the economic impact and the initiation of the project, the names of the members of the Congressional delegation, a list of the Federal agencies (EAC members) participating with OEA in the recovery process, and the name of the Project Manager or Regional Director who prepared the status report
- An objectives and current status section, containing information on new jobs created, numbers of Department of Defense (DoD) civilian employees assisted and amounts of base property re-used, if applicable, and a description of the current status of the project
- A list of development action milestones by project phase (organization, planning, property, etc.) and development thrust (manpower, housing, environment, etc.) with target and completion dates
- Two attachment tables with status details, one on program financing, by Federal agencies, project phases and development thrusts, and the other on civil re-use of property, by development use (thrust).

As part of its annual report, OEA prepares summaries of accomplishments over all projects, for example, total number of jobs gained compared to jobs lost, total amount of grants awarded by Federal agencies, total number of acres of base property converted to specific civilian purposes, and so forth. These summaries are taken from the annual status reports and prepared manually.

B. Other Reports

Other reports, such as summaries of accomplishments by other Federal agencies in supporting OEA projects, are assembled from data in the annual report, usually by a Project Manager or Assistant Project Manager, each of whom serves as liaison to

particular Federal agencies. Such reports are compiled infrequently, because of the time and effort required (a few days to a week or more). Still other reports are prepared manually from staff input: these include two-page weekly summaries of highlights or significant actions prepared for ASD(MRA&L) and special reports of a few pages each required on the average of one a month. Important inquiries to the Director and other OEA managers, may total 20 per week, and are answered on the basis of information from the annual reports, general knowledge of the OEA managers, and specific knowledge of Project Managers and Regional Directors.

C. Limitations

The existing reports do not meet OEA's need for centralized current project status information that can be adapted to a variety of purposes. To respond to an inquiry about a project, OEA managers often must go to Project Managers and Regional Directors for up-to-date status information. Because the preparation of special reports on an organization's activities in economic adjustment projects necessitates the collection and manual sorting of project information, some desirable reports may have to be foregone altogether. Project Managers and Regional Directors have to plan their project management activities on an ad hoc basis; they collect project information continuously, but it is not necessarily organized for planning purposes. Finally, OEA managers must exercise their supervisory and staff assistance functions without the aid of frequently updated information on project activities, including changing target dates, completion dates, and development action items.

III. PROPOSED CASE

In the proposed case, input data would be expanded but similar to the existing case, updating procedures would be revised, updating frequencies would be increased and output reports and frequencies would be increased significantly.

A. Inputs

1. Project Status Report

Project data to be entered into the data management system would be placed on a project status report, shown in Appendix B, that would serve as both a basic input and output format for the system. Similar to the present status report shown in Appendix A, the proposed status report has three sections: identification, status items, and a list of development action milestones.

The identification section on the first page should not substantially change during a project. It includes the name of the affected installation; the city and State; the surrounding impact area, which may be the city itself, or one or more counties; the date the project was initiated; a synopsis of the economic impact and the initiation of the project; the names of the members of the Congressional delegation; a list of the Federal agencies (EAC members) participating with OEA in the project; and the names of the Project Manager and Regional Director. The identification section is identical to that of the present report, except that both the Project Manager and Regional Director would be identified, and the name of the one with primary responsibility capitalized.

The status items section contains four subsections: a narrative of current status, personnel status information a table on program financing, and a table on civil re-use of property. The personnel status subsection, which follows the narrative on the first page of the report, is composed of about 30 items, covering employment in the area, the unemployment rate, jobs lost and gained, payroll lost and gained, property tax gained, DoD

civilian personnel affected, and the DoD Homeowners' Assistance Program. The table on program financing (see second page of Appendix B) is very similar to that in the present status report and would have funding detail by those project phases for which funding could be received (organization, planning, and implementation), and by development thrusts (considered part of the implementation phase).

The development thrusts are:

- Business
- Environment
- Education
- Manpower training
- Airport
- Other transportation
- Housing
- Health
- Recreation and tourism
- Government
- Other.

The proposed table on program financing differs slightly from the existing one; the present thrust "capital improvements" would disappear, to be replaced by its constituent parts: business thrust for industrial park development, environment thrust for water or sewer development, transportation thrust for highways and so forth. The table on civil re-use of property (see third page of Appendix B) would have details on property acres and values and numbers of new jobs (or students) gained by categories of civilian use (development thrust) of property. In addition, numbers of business firms and units of housing would be shown. The part of the table on the total acreage of the former installation is designed to be internally consistent, so that the total acreage of the former installation less the total acreage retained for Defense less the total acreage re-used through both interim use and conveyance equals the total acreage still available.

The list of development action milestones (see fourth through seventh pages of Appendix B) is arranged in approximate chronological order, with columns to identify project phase, responsible party or parties, target date, completion date and comments.

The project phases are:

- Pre-project
- Organization
- Planning
- Property
- Implementation.

The development action milestones included in the format shown in Appendix B represent a standardized list that would apply to a typical, generalized project. Project Managers and Regional Directors would develop a list of action milestones applicable to their projects. An asterisk by certain action milestones indicates that these are major milestones for which a comment would be required during a routine update if a target date were changed or missed. Comments on other action milestones would be optional.

2. Significant Event Report

In addition to the routine scheduled updating of project status reports, the only other input to the proposed data management system would be significant events. A proposed input format for significant events is shown in Figure 1. A significant event report would be submitted on those project-related activities, both favorable and unfavorable, deemed worthy of the Director's attention. The present use of significant event reports to identify only progress or accomplishments for inclusion in the weekly highlight reports for ASD(MRA&L) and others would be expanded to include the identification of important project-related problems. Topics could include progress, accomplishments or problems relating to local development organization, funding, job-related industrial activity, property disposal and acquisition milestones, visits, newspaper

SIGNIFICANT EVENT

Community Project: _____

Date: _____

Description (Highlights, 50 words or less):

(Details):

Prepared by:

Figure 1. Input Format for Significant Event Report

clippings, and so forth. Significant events of a general nature, or unrelated to a specific project, such as legislative developments, could be identified by referring to the Community Project as "General."

Unlike the project status reports, which would be distributed both inside and outside OEA, significant event reports would be for OEA internal use only to encourage candor on the part of Project Managers and Regional Directors. Highlights describing the significant event in 50 words or less would be telephoned into a staff Information Coordinator who would place them in a centralized data base. More detailed explanation could be written either on the significant event report itself or in a Memorandum to the Director.

B. Updating Procedures and Frequencies

1. Project Categories

For purposes of this analysis, the 60 economic adjustment projects may be divided into 10 high, 30 medium, and 20 low intensity projects. A high intensity project may be defined as one in which there is continuing strong interest throughout its lifetime, such as a significant closure in a major city, or one in which there is unusually high political interest. A typical high intensity project may last from three to five years. A low intensity project may be defined as one in which the economic impact is small, OEA involvement is minimal or incidental, or one resulting primarily from political interest. The bulk of projects, which are neither high nor low intensity, are medium intensity projects, in which there is average interest and activity.

It is also possible to categorize projects by their position in the recovery cycle. A project may start as a high intensity project in the early stages of the recovery period—the first six to twelve months of OEA involvement when its activity is heaviest. A project may become a medium intensity project during the middle stages of the recovery period - the second six to twelve months, after both the Economic Survey and Federal Team reports on a community have been completed but while there is still heavy

development activity. During the latter stages of the recovery period, a project may fall into the low intensity category. OEA management would assign projects to the categories initially and reassign them as desired.

2. Project Status Report

For the proposed case, Project Managers and Regional Directors would keep track of changes in status and development action milestones for the projects in which they hold primary responsibility. They could, for example, note changes on their copy of a then-current status report. On a regular basis - once every two weeks for high intensity projects, once a month for medium intensity projects, and once a quarter for low intensity projects - a project would be routinely updated by a phone call or visit from the staff Information Coordinator. He would collect updated project data orally from the Project Managers and Regional Directors, thereby reducing time demands on the senior professional staff. To aid in discussing the routine updates, the Information Coordinator could use previous significant event reports on a project since its last update. He would then update the projects in a centralized data base, which could be manually maintained or provided by an outside data processing contractor or various other data management systems to be discussed in Section IV.

For a typical number and mix of projects (10 high intensity, 30 medium intensity, and 20 low intensity), the updating frequency for project status reports implies a routine daily schedule that would include updating one high intensity project, two medium intensity projects (actually three in two days), and one low intensity project. The irregular updating of selected inactive projects, in the preparation of the annual report for example, would be treated by Project Managers and Regional Directors in exactly the same way. An estimate of the average daily workload is included in Appendix C.

3. Significant Event Report

In keeping with current OEA policy, inputs of significant events would be made whenever applicable. Project Managers could submit the highlights description of the

significant event to the Information Coordinator orally or on the input form (Figure 1). Regional Directors could submit the highlights description of the significant event by telephone or transmit the input form by telefax. If any detailed explanation were included on the input form, it would be routed to the Director. Otherwise, Project Managers and Regional Directors would send their more detailed explanations in Memoranda to the Director.

C. Outputs

Relative to the existing case, output from the proposed case would be increased considerably; the data would be more current, and special needs for diverse output could be met more quickly.

1. Project Status Reports

Updated versions of the project status reports (see Appendix B) would appear at the end of the week in which they had been updated. Reports would be typed or printed out only for those projects in which there had been changes from the previous report. Project updates would be scheduled routinely day-by-day so that updated status reports would appear with the following frequencies:

- Within any two-week period, updated status reports would be printed out for all high intensity projects in which there had been changes.
- Within any 30-day period, updated status reports would be printed out for all medium intensity projects in which there had been changes.
- Within any 90-day period, updated status reports would be printed out for all low intensity projects in which there had been changes.

Once a quarter, status reports for all projects - high, medium, and low intensity - would be printed out, whether or not there had been any changes from the previous update.

An updated copy of the project status report would be provided to the Project Manager and the Regional Director for use in managing their projects. The project status reports could become an operational device in managing projects rather than merely a means of reporting status. Development action milestones and target dates would be

current and hence more useful in helping a Project Manager or Regional Director plan his time for a project than the data contained in the existing annual status reports.

The updated version could be sent to the Congressional delegation and selected local and State officials on the project's distribution list. By sending copies of project status reports to key local and State officials, OEA would be providing them with current project information for their management purposes and making them more aware of potential project-related problems and of OEA's role and information requirements.

Once a quarter, a completely new set of project status reports would be provided to the Director and other OEA managers for use in both managing and responding to inquiries. Copies of the updated project status reports could be inserted each week to replace the outdated ones.

2. Significant Event Reports

Three types of significant event reports would be available: a daily compilation, a weekly compilation, and a compilation by project. A proposed format for all three types appears in Figure 2. The daily report would compile significant events reported and entered into the system that day. It would supply the Director and other OEA managers with information on project-related problems as well as project highlights. The weekly significant event report, containing all significant events reported during the week, would be used by the staff in the preparation of weekly highlight reports for ASD(MRA&L) and others. Copies would be circulated among the professional staff. The third type of report would compile significant events by project since the last update. This variety of significant event report could be used by the Information Coordinator in discussing the routine updating of a project status report with a Project Manager or Regional Director.

SIGNIFICANT EVENT REPORT

(Weekly, Daily, Project)

Date Prepared: _____

Community Project: _____

Date: _____

Description (Highlights):

Prepared by: _____

Community Project: _____

Date: _____

Description (Highlights):

Prepared by: _____

•
•
•

Figure 2. Output Format for Significant Event Report

3. Summary Status Reports

Summaries of the status section of project status reports - on personnel status, program financing, and civil re-use of property - would be prepared annually. The proposed format of the two-page report is shown in Figures 3A and B. A summary could be prepared for all projects, all projects within a State, all projects within a Federal region, all projects of a particular military department, or all projects of a Project Manager or Regional Director. A number of types of summary over various periods could be prepared: (1) a summary of annual changes in status for projects active during a calendar year, (2) a summary of cumulative changes in status items for all current projects since their initiation date, and (3) a summary of cumulative changes in status items for projects initiated after a given date.

The summary status reports could be used by OEA in the following ways:

- The summary of annual changes over all projects and the summary of cumulative changes over all projects active in a year would be used in the preparation of an annual report.
- A summary of all projects within a State that have been active in a year could be sent to State governors or serve as the basis for meeting with or briefing State officials.
- A summary of all projects within a region that have been active in a year could provide the basis of a briefing by a Regional Director for the Federal Regional Council on project accomplishments.
- A summary of all projects of a particular military department could be the basis for meeting with or briefing departmental representatives.
- Since the summary does reflect the number, if not the actual complexity, of various personnel, program funding and property activities, a summary of all projects managed by a Project Manager or Regional Director could provide one input to OEA management for staff assignments.

4. Status Report by Agency and Region

An annual output of the data management system would be a status report on all program financing and property activities by a particular Federal program agency. The activities would be listed by every project in which the agency is involved. There would be a separate report for each agency involved in EAC projects, and there could be a

ALL PROJECTS
 STATE REGIONAL DIRECTOR
 MILITARY DEPARTMENT
 PROJECT MANAGER
 REGIONAL DIRECTOR

PRESIDENT'S ECONOMIC ADMINISTRATION COMMITTEE
 OFFICE OF ECONOMIC ADMINISTRATION
 SUMMARY STATUS REPORT
 Period (dates)

Date of Report

PERSONNEL STATUS	Agency	Amount Applied For	Amount Financed
Jobs Lost: Military _____ Civilian _____ Contractor _____ Total _____ Jobs Gained: On base, current _____ Off base, current _____ Total _____ Student/vol-tech _____ DoD Civilian Personnel Affected: Placement _____ Retirement _____ Resignations _____ Separations _____ Total _____			
Payroll Lost: Military _____ Civilian _____ Contractor _____ Total _____ Projected _____ Projected Total _____ Projected _____ Payroll Gained: On base _____ Off base _____ Total _____ Property Tax Gained: _____ DoD Homeowners Assistance Program: Number Benefitting _____ Amount of Benefit _____			
Purpose Organization Planning Development Business Environment Education Manpower Training Airport Other Transportation Housing Health Recreation and Tourism Government Other Total for All Projects			

Figure 3A. Summary Status Report
 (Personnel Status and Program Financing)

PRESIDENT'S ECONOMIC ADJUSTMENT COMMITTEE
 OFFICE OF ECONOMIC ADJUSTMENT

ALL STATE REGION
 MILITARY DEPARTMENT PROJECTS
 PROJECT MANAGER
 REGIONAL DIRECTOR

SUMMARY STATUS REPORT
 Period (dates)

Date of Report:

CIVIL RE-USE OF PROPERTY

Total Acreage of Former Installation _____
 Total Acreage Retained for Defense _____
 Total Acreage Re-used _____
 Interim Use _____
 Conveyed _____
 Total Acreage STILL Available _____

Value of Property
 Real _____
 Personal _____
 Cost to Government _____
 Estimated Market Value _____

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Use	Interim Use		Conveyed		Totals		No. New Jobs/Students	
	Number of Acres	Estimated Value of Property Real Personal	Number of Acres	Estimated Value of Property Real Personal	Number of Acres	Estimated Value of Property Real Personal	Current	Projected
Business (No. Firms)								
Environmental								
Education							(s)	(s)
Manpower Training								
Airport								
Other Transportation								
Housing (No. Units)								
Health								
Recreation and Tourism								
Government								
Other								

* (s) denotes number of new students.

Figure 3B. Summary Status Report
 (Civil Re-Use of Property)

separate report for each agency by Federal region, as well as for the agency on a nationwide basis. A proposed format is shown in Figure 4. The report would help to regularize contact between OEA and the EAC member agencies and would contribute to a shared sense of accomplishment for EAC projects.

5. Development Action Milestones by Agency and Region

On a quarterly basis, the data management system would produce a report showing the status of the development action milestones accepted by a particular Federal program agency for every project in which it is involved. There would be a separate report for each Federal agency involved in EAC projects, and there could be a separate report for each agency by Federal region, as well as for the agency on a nationwide basis. A proposed format is shown in Figure 5.

The report would be sent to the Under Secretary of the Federal agency and other agency representatives to the EAC, as well as regional directors of the Federal program agency. The quarterly listing of pending actions would be useful for an agency's own management purposes and might inspire some initiative among agency personnel to expedite the EAC projects.

D. Benefits

The following benefits may be expected from the proposed data management system:

- The Director and other OEA managers would have current project information with which to respond to inquiries without having to check with Project Managers and Regional Directors as often.
- OEA would be able to regularize contact and strengthen relations with other participating organizations by supplying them with status reports on projects in which they are involved.
- Project Managers and Regional Directors would be updating project information on a regular basis, thereby providing themselves with more current organized information for project management purposes.
- OEA managers would receive current project information to assist them in supervising and assisting the project management staff.

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PRESIDENT'S ECONOMIC ADJUSTMENT COMMITTEE
 OFFICE OF ECONOMIC ADJUSTMENT
 STATUS REPORT FOR (AGENCY) IN REGION (1 - 10, ALL)
 Period (dates)

PROGRAM FINANCING - COMPLETED

Community Project	Purpose	Amount Requested	Type (grant, loan guarantee)	Application Date	Date Required	Impact (jobs/students)	Date Funded	Amount Funded	Fund Requirement and Remarks
	Organization								
	Planning								
	Development								
	Business								
	Environment								
	Education								
	Manpower Training								
	Airport								
	Other Transportation								
	Housing								
	Health								
	Recreation and Tourism								
	Government								
	Other								
	Total for Project								
	Total for All Projects								

PROGRAM FINANCING - PENDING

(rows and columns same as above)

CIVIL RE-USE OF PROPERTY (for those agencies with public benefit conveyances: DOI, DOT, HEW)

Community Project	Use	Interim Use			Conveyed			Totals			No. New Jobs/Students	
		Number of Acres	Estimated Value of Property		Number of Acres	Estimated Value of Property		Number of Acres	Estimated Value of Property		Current	Projected
			Real	Personal		Real	Personal		Real	Personal		
if HEW	Education											
	Health											
if DOT	Airport (including "revenue producing area")											
if DOI	Recreation and Tourism (including Historic Preservation and Wildlife Conservation)											
	Total for All Projects											

*(s) denotes number of new students

Figure 4. Status Report by Agency and Region

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PRESIDENT'S ECONOMIC ADJUSTMENT COMMITTEE

OFFICE OF ECONOMIC ADJUSTMENT

STATUS OF ACTION MILESTONES FOR (AGENCY) IN REGION (1-10, ALL)

For Current Projects as of (date)

Date of Report

Community Project	Action Milestone	Responsible Party(ies)	Target Date	Completion Date	Comments

Figure 5. Development Action Milestones by Agency and Region

IV. ANALYSIS OF ALTERNATIVES

In this section, we analyze alternative processing concepts for implementing the proposed data management system. We define the initial requirements the alternatives must satisfy and the final criteria for judging them. The alternatives are then specified and evaluated.

A. Definition of Initial Requirements

The alternative processing concepts are analyzed in terms of six initial requirements:

- Ability to store data
- Potential to meet future requirements
- Ease of entering data into the system
- Ability to sort and summarize data
- Ability to generate reports
- Ability to provide data redundancy.

Alternatives meeting these requirements are then judged on the basis of three final criteria.

1. Ability to Store Data

Each alternative system must be able to store four million characters of data from approximately 60 current projects, 200 inactive projects and current significant events, as follows:

Current Projects (60)	3,136,000
Inactive Projects (200)	852,000
Significant Events	<u>70,000</u>
Total	4,058,000

The calculations to determine the data storage requirement are shown under "Size of Data Base" in Appendix C.

2. Potential to Meet Future Storage Requirements

As each project is closed, the storage requirement for current projects would be reduced by approximately 50,000 characters and that for inactive projects would be increased by only about 4,000 characters. The difference is the result of only the identification and status sections of the report being retained, and not the information on development action milestones. While the alternative processing concepts must be able to accommodate some modest growth (10 to 20 percent) in project data storage requirements overtime, they should also be able to accommodate data for new purposes, such as economic data for specific areas of the country and data on available industrial plants and sites in OEA projects. The systems should be able to accommodate as many as six million characters.

3. Ease of Entering Data into the System

The proposed data management system would require only two types of inputs: daily significant events and biweekly, monthly, and quarterly project status report updates. Significant events would be entered daily, as reported. Project status report updates would be entered on a routine staggered schedule. The peak workload would therefore not be very different from the average workload. The average daily input is estimated to be approximately 10,700 characters. That level of input would require no more than two hours on any given day for the Information Coordinator to perform the entire updating procedure: collection, entry and verification of the data. The calculation of time required to maintain the system is shown under "Average Daily Workload," Appendix C. The entering of data into the system should be simple enough to permit the use of OEA staff with minimal training.

4. Ability to Sort and Summarize Data

Each alternative processing concept must be able to sort and to summarize data in project status reports. Information on status items for summary status reports must be sorted by State, region, military department, agency, etc., and totaled for each

category. Information on development action milestones must be sorted by agency and region.

5. Ability to Generate Reports

The following reports are required:

- Daily and Weekly significant event reports
- Weekly output of updated project status reports
- Quarterly output of project status reports for all current projects
- Quarterly listing of development action milestones by agency and region
- Annual summary status reports by types of projects
- Annual summary status reports by agency and region.

The printout requirements are as follows:

- Daily: 7,500 characters
- Weekly: 920,000 characters
- Quarterly: 6,500,000 characters
- Annually: 4,200,000 characters

The calculations are shown under "Printout Requirements," Appendix C.

With the exception of generating the daily significant event report, a one-day turnaround time for reports (including overnight processing) would be sufficient. The daily significant event report would require only 7,500 characters to be printed. The daily report could be printed either on a terminal in OEA offices or at a central site, with overnight delivery depending upon the alternative. All reports from the alternative systems should be of standard size (8 by 10½ inches) to permit easy duplication and distribution.

6. Ability to Provide Data Redundancy

Some means must be provided to ensure data redundancy so that data in the system cannot be lost or destroyed accidentally.

B. Definition of Final Criteria

For those alternatives that satisfy the initial requirements, a final set of criteria is used.

1. Cost to Implement

These are the costs for bringing a system into operation, including detailed system specification and design for a specific piece of equipment, programming, testing, training, and conversion of the present system.

2. Cost to Operate

These costs are the monthly charges for use of terminals, computers or other equipment for computation, storage and printing.

3. Time Required to Implement

Implementation time is measured from when OEA would begin system implementation, after receipt of LMI's Task 4 report on system specifications. The implementation period includes time for detailed system specification and design for a particular alternative (specific piece of equipment), programming, testing, training, and conversion of the present data system. The estimate assumes that identification and status data on inactive projects that are to be loaded into the system are in a format similar to that for current projects.

C. Comparison of Alternatives

Five alternative processing concepts are evaluated:

- Large-scale equipment
- Time-sharing
- Service contractors
- Small-scale equipment
- Magnetic card typewriters.

They are first evaluated in terms of the six initial requirements; those alternatives satisfying all the initial requirements are then evaluated against the final criteria.

1. Large-Scale Equipment

Large-scale equipment fulfills all requirements. OEA has access to a large-scale computer in the Pentagon at the Air Force Data Services Center (AFDSC or Center). The Center maintains a Honeywell Series 600 (G-635) computer for unclassified data processing projects, including those for the Office of the Secretary of Defense (OSD). The computer system, referred to as "System C" offers both on-line (time-sharing) and batch processing capabilities.¹ Although the AFDSC charges for use of the computer, no charge is made for personnel costs, and System C usage costs are much lower than costs for comparable usage on commercial computer systems. A proposed programming application such as OEA's data management system is being studied by representatives of the AFDSC, OSD (Comptroller), and OASD(MRA&L), using this report and LMI's upcoming Task 4 report on system specifications, to determine its suitability for System C or other equipment, its ability to conform to System C standards, and the availability of the AFDSC computers and personnel. System C would easily accommodate OEA's present and future storage requirements.

The features of System C allow non-programmers to use it easily. A software (programming) package would have to be designed to ensure easy data entry from a terminal located in OEA's offices. The OEA Information Coordinator would enter data for updating the system onto a magnetic tape at the terminal to permit verification and to provide a back-up record until a job request is complete. Data on the tape and job requests for updating and report generating would be transmitted to the computer via the terminal. The actual updating and report generating process would take place primarily in the batch mode. Appendix D is a more technical description of the operational aspects of System C.

¹By time-sharing, we mean a method of using a computer system that allows a number of users to execute programs concurrently and to interact with the programs during execution. By batch processing, we mean a method of using a computer system in which a program or job is executed completely before the next program is started, and in which there is no interaction with the program during execution.

OEA's Information Coordinator and an alternate would need training only for the functions of data entry, data verification and update/report requests. Such training could be accomplished in one week. OEA staff would not need training in computer systems or operations to use the system effectively.

Sorting requirements would not be a problem, because large-scale systems offer a choice of programming languages and packages of previously programmed sorting routines that can be adapted to many purposes. System C has an efficient sorting package that is easy to adapt and reprogram.

Daily and weekly significant event reports could be printed on the terminal in OEA's office and would require no more than five minutes of uninterrupted printing for the daily report and ten minutes for the weekly report. Other reports would be produced on high-speed printers at the AFDSC with a maximum turnaround time of one day. The reports can be programmed to fit either an 8 by 10½ inch format or standard sized computer form feed paper that can be reduced at the Center to the 8 by 10½ inch size for reproduction. OEA can also use AFDSC's copying and/or binding facilities, which could increase turnaround time by as much as one day.

Data redundancy can easily be provided. As part of System C's maintenance procedure at the Center, OEA's data base would be backed up on tapes, and data being manipulated by the computer would be copied onto "save" tapes several times a day. In addition, OEA could save its daily input on magnetic tape at the terminal until updates had been verified.

The estimated cost to implement OEA's data management system on System C is \$30,000, including custom developed software. The cost is broken down as follows:

Detailed Specification	\$ 8,000
Design	3,000
Programming	10,000
Testing	2,000
Training	1,000
Conversion	<u>6,000</u>
Total	\$30,000

Although the system could be implemented by AFDSC staff, the cost estimate is based upon the work being performed by an outside contractor unfamiliar with System C.

The estimated cost to operate the system is \$600 per month, including \$350 per month for computer usage, and \$250 per month for rental of a terminal in OEA's office. The estimate of \$350 per month is based upon the cost experience of other users of System C.

The time required to specify, design, program and test the software is three to four months of elapsed time. Training would take only one week. Conversion of both current and inactive projects from OEA's present system would require one to two months, depending upon the completeness and format of data on inactive projects. A total of four to six months should be allowed to implement the system.

2. Time-Sharing

Time-sharing services offered by commercial firms fulfill all requirements, but at a higher cost than System C. Time-sharing can be viewed in much the same context as the large-scale equipment described above. Operations would be similar, with a terminal in OEA's offices connected by telephone to a large-scale computer which performs the processing operations. High-speed printing of reports, other than significant event reports, would be performed at the local time-sharing center for pickup by or delivery to OEA.

The major operational aspect of time-sharing different from System C is that updating procedures would be designed to take place in a time-sharing, rather than a batch processing mode. The advantages of updating in a time-sharing mode are: the updating procedure would be a one-step operation, the user would be told immediately on the terminal when the updating was complete, and the updated project status reports could be verified at that time. This procedure contrasts with the primarily batch processing mode of updating on System C. Project status reports updated in a batch mode could not be verified at the terminal until the updating request had been batch processed, an operation

which could take minutes or hours. However, to get the immediate service offered by updating in a time-sharing mode, a large portion of the OEA data base would have to be in on-line storage for much of the time, which is very expensive.

The cost to develop and implement such a time-sharing system is estimated at \$25,000, as follows:

Detailed Specification	\$ 4,000
Design	3,000
Programming	7,000
Testing	4,000
Training	1,000
Conversion	<u>6,000</u>
Total	\$25,000

Specification, design and programming costs would be less than those for System C, since the time-sharing contractor would be familiar with the computer system and would have access to, and knowledge of, existing system programs that could be adapted to meet any OEA requirements. Testing costs would be more expensive than those for System C, because computer usage charges during testing would be greater.

The monthly operating cost, estimated at \$2,500, is as follows:

Terminal Rental	\$ 250
Terminal Connect Time	300
Input/Output Activities	200
Central Processing Unit (CPU)	500
Data Storage	1,000
Printing	<u>250</u>
Total	\$2,500

These figures represent an average of price quotes from three time-sharing companies. The operating costs reflect a typical operating pattern emphasizing on-line storage. For

one such pattern, data on high intensity projects are stored on-line and can be updated daily; data on medium and low intensity projects are stored off-line and moved to on-line storage for several days a month. The actual update processing would be done at this time, even though update data collection from Project Managers and Regional Directors could continue to take place daily on a routine staggered schedule.

While off-line storage is less expensive than on-line storage, there are charges for moving data from off-line to on-line storage where it can be processed. An alternative would be to store all data on off-line devices and bring them on-line for only a few days a month, during which all update processing would take place. The monthly operating costs in this case would clearly be less than those for the time-sharing operating pattern costed above, but a detailed analysis of various time-sharing operating patterns was not performed. The commercial time-sharing charges for computer usage are sufficiently higher than those at AFDSC not to warrant such analyses.

The amount of time required to implement the time-sharing alternative could be as much as a month less than that for System C because of the time-sharing contractor's familiarity with his computer system.

3. Service Contractors

Service contractors satisfy all requirements, but at a cost higher than that for System C. Like time-sharing, the use of a service contractor can be viewed as offering the advantages of large-scale computer equipment, but, in contrast to time-sharing, the service contractors offer only batch processing. Data and update or report generation instructions could either be transmitted by a terminal in OEA's office to the service contractor for batch processing, or the service contractor could enter data directly from OEA forms. In either case, the service would be inferior to that offered by System C and the cost would be greater.

The use of service contractors would be less costly than time-sharing (although more costly than the System C). However, there could be no time-sharing aspect to the

updating procedure as there is with the System C, where update data can be verified before being entered for batch processing. With the service contractor systems, no data can be verified and no errors corrected until the update processing is completed in the batch mode and either an update validation report or an actual project status report is produced and transmitted back to OEA.

The cost to develop and implement the service contractor systems would be equal to that for time-sharing: approximately \$25,000 including conversion of OEA's present system. The average monthly cost to operate a service contractor system is approximately \$1,600 per month. Given such costs, within five months of starting operations the service contractor system would be more costly than the System C.

Most contractors believe that they have a data management system that could be tailored to meet OEA's requirements. A system already in use would reduce both the implementation and operating costs, resulting in lower estimates than those above. Still, existing packages usually require extensive tailoring and the above cost estimate should be used.

As with the time-sharing system, the amount of time to implement the service contractor alternative could be as much as a month less than that for System C.

4. Small-Scale Equipment

A variety of small-scale minicomputers is available to meet OEA's proposed system requirements, but at a greater cost than the other alternatives. Furthermore, a trained operator would be required.

Data entry and report generation are performed through the minicomputer's terminal. A minicomputer located at OEA's office would require a trained operator to perform the following functions:

- Daily updating and report generation
- Off-line data storage
- Back-up operations to ensure data redundancy
- Simple hardware maintenance.

Costs for minicomputers with the ability to accommodate OEA's data storage requirements would be \$3,500 to \$5,200 per month or \$90,000 to \$225,000 purchase price. In addition, the cost to implement would be approximately \$25,000, including conversion from OEA's present system. Less expensive minicomputers are available, but they would require some manual sorting due to data storage limitations.

5. Magnetic Card Typewriters

Magnetic card typewriters do not provide any sorting capability, a major shortcoming that eliminates them from consideration.

V. CONCLUSIONS AND RECOMMENDATIONS

Of the five alternatives evaluated, all except magnetic card typewriters and small-scale equipment can meet the initial requirements of OEA's data management system. Magnetic card typewriters do not have sorting capability, and the small-scale equipment requires a trained operator. Small-scale equipment is also the most costly alternative.

The three remaining alternatives satisfy all the initial requirements. All three are based upon large-scale computers. Time-sharing offers an easy and satisfying procedure for entering data, in which updates can be verified immediately. Its drawback is the high cost of such immediate service. Service contractors offer the potential for service with no OEA involvement in computers, terminals or other equipment. On the other hand, the transmittal of forms and reports between OEA and the service contractor would be cumbersome and time-consuming; there would be delays in verifying updates and correcting errors. The service would also be very expensive.

The recommended alternative is System C. It combines the advantages of both time-sharing and service contractors at the least cost. System C offers an easy method of updating, requires little training and provides immediate verification of update data and updated status reports within a day. Although more costly to implement than time-sharing or service contractor systems, System C's monthly operating costs are only 40 percent of those for service contractors and 25 percent of those for time-sharing. System C would be the least costly alternative within five months of operation. After a year of operation, the combined cost of implementation and operation for System C would be only 85 percent of that for service contractors and two-thirds that for time-sharing.

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APPENDIX A

Sample of Existing Status Report

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ECONOMIC ADJUSTMENT PROJECT STATUS REPORT

Community Project:

San Francisco, California
Hunters Point Naval Shipyard

Date Project Initiated:

June 18, 1973

Synopsis:

The shipyard, which closed in June, 1974, had a payroll and operating budget in excess of \$100 million. Certain administrative functions and personnel were relocated to other Navy installations on the West Coast such as the yards at Long Beach, Mare Island, and Puget Sound. EAC assistance was requested by Mayor Joseph Alioto with support from the Congressional delegation.

Objectives: (1) Create new jobs. (Jobs) Lost 4,649 Gained 376
(2) Assist DoD Employees. (No.) Affected 5,444 RIF'd 0
(3) Reutilize Base Property. (Acres) Available 853 Reused
(4) Eliminate part or all of \$3M/yr. in Navy idle retention costs.

Current Status:

University of California occupying buildings #830 and #831 to house research animals. Attempts to lease submarine dry dock (Zone 1) and shipbreaking areas produced no bidders. Fourteen parties expressed interest in leasing the entire industrial area of the yard. Recent settlement of an environmental suit against the Navy will allow release of a request for proposals (RFP).

The Mayor's Office of Economic Development has primary responsibility for conversion of the shipyard properties. A reuse plan was completed in June, 1974 and a detailed economic reuse and marketing study was completed in August, 1975. A candidate environmental impact statement has also been prepared.

Present and anticipated constraints include: 1) need for competitive bid from prospective sub-lessees if City becomes master lessee, 2) proposed lease terms and conditions, and 3) further environmental obstacles.

Congressional Delegation

Senator A. Cranston
Senator J. Tunney
Cong. P. Burton

Participating Organizations

() Agri () Interior (X) HEW () SBA () OMB
(X) Commerce (X) Labor () CSA () FEA (X) FRC
() Transport (X) HUD (X) GSA () EPA (X) State
() Other (X) Navy () AF () Army () DSA

Prepared by: Roger Sattler
Date of report: November 1975

Attch. I - Program Financing
Attch. II - Civil Reuse of Property

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<u>Action Milestones:</u>	<u>Target Date</u>	<u>Completion Date</u>
<u>Organization</u>		
. Create state task force for economic adjustment.	5/73	5/73
. Create special city task force for Hunters Point Naval Shipyard (HPNSY).	5/73	6/73
. City requests EAC assistance.	-	6/73
. OEA conducts recon visit.	6/73	6/73
. Hunters Point task force releases preliminary report.	7/73	7/73
. ASD(I&L) and OEA reps. visit Mayor.	9/73	9/73
. Mayor meets with DepSecDef to request Dry Dock #4.	10/73	10/73
. OEA recon report issued.	7/73	4/74 (status report)
. EAC team visit conducted.	Not required	-
. EDA funds City organization and planning.	2/74	5/74 (\$153K)
. City completes recruitment of additional staff.	9/74	12/74
<u>Planning</u>		
. HUD funds base reuse study.	6/73	6/73 (\$35K)
. Preliminary conceptual reuse plan complete.	7/73	7/73
. Execute contract with consultant for reuse analysis.	9/73	9/73
. ULI conducts panel on HPNSY reuse.	10/73	10/73
. ULI publishes results of HPNSY reuse panel.	11/73	11/73
. Complete detailed study of reuse options for shipyard.	6/74	6/74
. Complete candidate EIS for leasing program.	6/74	6/74
. HUD provides special grant to establish city economic analysis unit.	7/74	10/74 (\$150K)
. Consultant hired to plan port involvement in reuse.	7/75	7/75
. Consultant submits plan for port involvement.	8/75	8/75
<u>Property Disposal</u>		
. Title X report #431 submitted to ASC (853.3AC).	8/73	8/73
. OEA, Navy and DSA sign agreement maximizing potential for acquisition of personal property by City.	5/73	5/73
. ASC approves report #431.	9/73	Deferred 10/73

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<u>Action Milestones:</u>	<u>Target Date</u>	<u>Completion Date</u>
<u>Property Disposal (cont'd)</u>		
. Navy provides OEA, City with listing of over-age personal property.	10/73	10/73
. Navy requests OSD approval to withdraw report #431 to pursue leasing.	11/73	12/73
. SECNAV announces retention of shipyard for leasing.	1/74	1/74
. OSD approves Navy request for withdrawal of report #431.	12/73	2/74
. Title X report #431 withdrawn from Congress.	3/74	5/74
. Shipyard officially closed.	6/74	6/74
. Delineate residual property to be excessed.	11/74	11/74
. Submit Title X report #481 for excess property to ASC (524.8AC).	12/74	2/75
. Submit Title X report #480 for leasing to ASC (371 AC).	12/74	2/75
. ASC approves reports #480 and #481.	1/75	3/75
. City requests hold on report of excess property to GSA.	-	5/75
. ASD(I&L) requests Navy to delay reports of excess to GSA.	5/75	5/75
. OSD/Navy notify City that report of excess will be delayed.	5/75	6/75
. OEA completes review of IFB for master industrial lease.	6/75	6/75
. OSD asks Navy to extend hold on report of excess.	-	8/75
<u>Property Leasing</u>		
. UC requests lease of bldgs. #830 and #831.	-	8/73
. San Francisco Community College (SFCC) requests continuation of lease of bldgs. #115 and #121.	-	9/73
. City solicits industrial interest in leasing HPNSY properties.	-	10/73
. OSD advises UC that lease will be provided.	10/73	10/73
. ASD(I&L) requests Navy lease to SFCC via City.	10/73	11/73
. SFCC vacates premises due to prohibitive lease costs.	-	12/73

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<u>Action Milestones:</u>	<u>Target Date</u>	<u>Completion Date</u>
<u>Property Leasing (cont'd)</u>		
. Disposal report #455 for lease for shipbreaking submitted to ASC (13 AC).	1/74	1/74
. Navy Industrial Support Office established at HPNSY.	3/74	3/74
. Navy/OEA conference to develop leasing milestones.	3/74	3/74
. Navy provides funds for appraisal and candidate EIS.	4/74	4/74 (\$135K)
. EIS contract awarded to DMJM.	4/74	4/74
. Appraisal contract awarded.	4/74	4/74
. Legal and policy positions re: foreign interests obtained.	4/74	5/74
. Second leasing conference held with OEA, Navy and City.	5/74	5/74
. Candidate EIS completed.	6/74	6/74
. Disposal report #473 for leasing of Zone 1 submitted to ASC (61 AC).	6/74	6/74
. IFB for Zone 1 complete.	6/74	6/74
. Appraisal for Zone 1 complete.	6/74	7/74
. City completes promotional materials.	7/74	7/74
. Contractor selected for shipbreaking.*	7/74	7/74
. ASC approves disposal report #473.	7/74	8/74
. Appraisal of entire industrial parcel complete.	9/74	9/74
. Opposition to leasing expressed by local shipbuilders.	9/74	9/74
. Mayor, OEA meet with ASN(I&L) re: opposition of local shipbuilders.	9/74	9/74
. Mayor meets dissident shipbuilders to resolve problems.	10/74	10/74
. Navy re-advertises for shipbreaking bids.	11/74	11/74
. Shipbreaking bids submitted.	11/74	No bids.
. Shipbreaking lease executed.	12/74	No longer applicable.
. Submission of bids for Zone 1.	11/74	No bids.
. Selection of lessee for Zone 1.	1/75	No longer applicable.
. Navy re-advertises for shipbreaking bids.	1/75	1/75
. Execute UC lease for bldgs. #830 and #831 (12 jobs).	2/74	3/75

*No contract. Financial difficulties.

<u>Action Milestones:</u>	<u>Target Date</u>	<u>Completion Date</u>
<u>Property Leasing (cont'd)</u>		
. Shipbreaking bids submitted.	2/75	No bids.
. Solicit letters of interest for entire industrial parcel.	3/75	3/75
. Letters of interest for entire industrial parcel submitted (14 prospects).	4/75	4/75
. Complete negotiations for Zone 1.	3/75	No longer applicable.
. Obtain CSD approval of Zone 1 lease.	3/75	No longer applicable.
. Obtain ASC approval for Zone 1 lease.	4/75	No longer applicable.
. Execute lease for Zone 1.	5/75	No longer applicable.
<u>Manpower</u>		
. City requests DoL funds for counseling, referrals and training.	6/73	6/73
. DoL provides funds.	7/73	10/73 (\$2500K)*
. Navy placement and counseling of employees complete.	6/74	5/74
. City manpower program for Hunters Point complete (Registered 175, counseled 132, trained 29, placed 18).	10/74	4/75
<u>Housing</u>		
. City requests OEA assistance in expediting HUD funds for Phase I program at Hunters Point.	6/73	6/73
. City submits application for Phase II housing program.	9/73	9/73
. ASD(I&L) requests HUD Under Secretary to Hunters Point projects.	10/73	10/73
. HUD approves Phase I housing project.	5/73	11/73 (\$3.3M)
. HUD Under Secretary informs City and ASD(I&L) that Phase II units must be funded under Section 23 program.	11/73	1/74
. Mayor requests HPNSY housing not be exceeded.	5/74	5/74
. ASD(I&L) informs Mayor that HPNSY housing must be exceeded.	5/74	5/74
. HUD allows City to proceed with Phase II housing under Section 8 of CD Act.	-	12/74 (\$20M)

*Amount set-aside. Initial allocation was \$255,000, of which only \$245,000 were spent.

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<u>Action Milestones:</u>	<u>Target Date</u>	<u>Completion Date</u>
<u>Environment</u>		
. Navy agrees to complete storm interceptor and sanitary/storm separation projects.	-	5/74 (\$5M)
. State files suit against Navy for failure to comply w/environmental standards.	-	6/75
. OEA, Navy meet with HAC staff to seek authority for additional spending for FY 73 pollution abatement project.	7/75	7/75
. OSD submits formal request to HAC for needed spending authority.	7/75	7/75
. Court hearing held.	8/75	8/75
<u>Incompleted Actions</u>		
. Complete RFP for entire industrial area.	9/75	
. Solicit bids for use of industrial area.	9/75	
. City requests additional EDA funding.	9/75	
. HAC provides Navy with additional authority.	11/75	
. Release IFB for sanitary/storm sewer separation project.	11/75	
. Contract for sanitary/storm separation.	11/75	
. Release OEA status report.	12/75	
. Submission of bids.	2/76	
. GSA conveys surplus properties to BOR and HEW.	4/76	
. BOR, HEW transfer deeds to new property owners.	4/76	
. Complete lease negotiations.	5/76	
. Navy submits excess property reports to GSA.	5/76	
. GSA accepts excess property reports.	5/76	
. Obtain Congress approval of lease.	6/76	
. Federal screening of excess property complete.	6/76	
. GSA solicits state and local interest in surplus property.	6/76	
. Improve public transportation to shipyard.	6/76	
. Execute lease.	7/76	
. State, local entities apply for surplus property via HEW and BOR.	7/76	
. GSA initiates appraisal of surplus property.	8/76	

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Action Milestones:

Target Date

Completion Date

Incompleted Actions (cont'd)

- | | | |
|--|-------|--|
| . Final development plan completed by lessee. | 9/76 | |
| . Training needs identified for new industrial activity. | 9/76 | |
| . BOR, HEW approve applications for surplus property. | 9/76 | |
| . Improve access to yard. | 12/76 | |
| . Complete storm/sanitary sewer separation project. | 12/76 | |

Attach 1 - PROGRAM FINANCING

Purpose	Amount (000)	Agency	Application Date	Date Required	Date & Amount Funded	Fund Requirement and Remarks
Organization	\$188.5	EDA	2/20/74	ASAP	\$153 5/74	Staff for marketing of shipyard properties; consultant to perform market and environmental impact studies.
Planning	\$35	HUD	6/26/73		6/28/73 \$35	For preliminary base use plan.
	N/A	HUD	N/A		10/23/74 \$150	City solicited by HUD for pilot project establishing unit to analyze economics of major development projects and do economic forecasting.
Manpower	\$2500	DOL	6/7/73	ASAP	10/15/73 \$255	Initial allocation for training and retraining of shipyard workers.
Housing	\$5,000	HUD	2/26/73	ASAP	\$3,300 11/73	For construction of 149 units of Sec 236 housing in Hunters Pt. community.
	\$20,000	HUD	9/10/73	ASAP	\$20,000 12/74	For construction of 641 units of housing in Hunters Pt. community.

Attach. II - CIVIL REUSE OF PROPERTY

#	Uses	Interim Use Number of Acres	Permanent Transfer or Sale Number of Acres	Total Acres Reused	Estimated Value of Property*		New Jobs/Students		
					Real (I)	Personal (P)	FY 75 & Prior	FY 76	FY 77
	Business/Industries (___ New Firms)							600	1800
	Education						12		
	Health								
	Recreation								
	Airport								
	Government								
	Housing (___ Units)								
	Other Navy support of leasing program							364	

Total Acreage Retained _____
 Total Acreage Reused 2
 Total Acreage Available 851
 Total Acreage of Former Installation 853**

*Indicate if property assessed is Interim Use (I) or Permanent Transfer or Sale (P)
 **Includes 525 AC excess and 371 AC for leasing.

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APPENDIX B

Sample of Proposed Status Report

PRESIDENT'S ECONOMIC ADJUSTMENT COMMITTEE
OFFICE OF ECONOMIC ADJUSTMENT
ECONOMIC ADJUSTMENT PROJECT
STATUS REPORT

<u>Community Project:</u>	Date Project Initiated:
<u>Impact Area:</u>	
<u>Synopsis:</u>	

Current Status:

Personnel Status:

Unemployment rate
start of project _____
project peak _____
current _____
Jobs lost: Military _____
Civilian _____
Contractor _____
Total _____
Jobs gained: On base, current _____
Off base, current _____
Total _____
Student/vo-tech _____
DoD civilian personnel affected:
Placements _____
Retirements _____
Resignations _____
Separations _____
Total _____

Area employment
start of project _____
project low _____
current _____
Payroll lost: Military _____
Civilian _____
Contractor _____
Total _____
Projected _____
Projected _____
Total _____
Payroll gained: On base _____
Off base _____
Total _____
Property tax gained _____
DoD Homeowners Assistance Program:
Number benefitting _____
Amount of benefit _____

Congressional Delegation	Participating Organizations
	() DOA () DOC () Army () Navy () AF
	() HEW () HUD () DOI () DOJ () DOL
	() DOT () ACDA () CSC () CSA () CEA
	() DC () DLA () EPA () ERDA () FEA
	() GSA () OMB () SBA

Project Manager/Regional Director _____
Date of Report _____

PROGRAM FINANCING

Community Project: _____

Purpose	Amount (000)	Agency	Application Date	Date Required	Date & Amount Funded	Fund Requirement And Remarks
Organization						
Planning						
Development Business Environment Education Manpower Training Airport Other Transportation Housing Health Recreation and Tourism Government Other						

CIVIL RE-USE OF PROPERTY

Community Project: _____

Total Acreage of Former Installation _____
 Total Acreage Retained for Defense _____
 Total Acreage Re-used _____
 Interim Use _____
 Conveyed _____
 Total Acreage Still Available _____

Value of Property
 Real _____
 Personal _____
 Cost to Government _____
 Estimated Market Value _____

Use	Interim Use			Conveyed			Totals			No. New Jobs/Students	
	Number of Acres	Estimated Value of Property		Number of Acres	Estimated Value of Property		Number of Acres	Estimated Value of Property		Current	Projected
		Real	Personal		Real	Personal		Real	Personal		
Business (No. firms)										(s)*	(s)*
Environmental											
Education											
Manpower Training											
Airport											
Other Transportation											
Housing (No. units)											
Health											
Recreation and Tourism											
Government											
Other											

* (s) denotes number of new students

Phase	Development Action Milestone	Responsible Party	Target Date	Completion Date	Comments
Pre-project	1. Military Department announces candidate realignment.				
Pre-project	2. Military Department develops draft Environmental Impact Statement (EIS).				
Pre-project	3. Military Department files draft EIS with Council on Environmental Quality (CEQ).				
Pre-project	4. Military Department receives public comments on draft EIS.				
Pre-project	5. Military Department files final EIS with CEQ.				
Pre-project	6. Military Department makes final decision on realignment and notifies Congress and public of decision.				
Organization	7. Community requests Economic Adjustment Committee (EAC) involvement.				
Organization	8. Office of Economic Adjustment (OEA) establishes point of contact with local liaison in community.				
Organization	9. OEA makes initial visit and/or desk audit to determine its role.				
Organization	10. OEA notifies Military Department and Base Commander of forthcoming visit.				
Organization	11. OEA notifies Congressional delegation of its involvement.				
Organization	12. OEA formally notifies Military Department of project.				
Organization	13. OEA notifies EAC members of establishment of project.				
Property	14. OEA provides guidance to community concerning acquisition of real and related personal property expected to become available.				

Phase	Development Action Milestone	Responsible Party	Target Date	Completion Date	Comments
Property	15. Military Department screens other DoD organizations to determine if real property at base is excess to Defense needs.				
Property	16. Military Department screens other DoD organizations to determine if personal property at base is in mission essential or need-to-buy category.				
Organization	17. OEA requests background information and material from Military Department and community.				
Organization	18. OEA establishes preliminary schedule for Economic Survey Visit.				
Organization	19. OEA notifies Congressional delegation, Military Department, local liaison, Base Commander and EAC members of Economic Survey Visit.				
Organization	20. OEA arranges for contractor support of Economic Survey Visit.				
Organization	*21. OEA conducts Economic Survey Visit.				
Organization	22. OEA requests additional data or makes follow-up data gathering visit if necessary.				
Property	23. Community develops preliminary Base Re-Use Plan.				
Organization	24. OEA identifies Federal programs for possible funding and grants for community organization.				
Organization	*25. OEA completes and distributes Economic Survey Report.				
Organization	26. OEA transmits Economic Survey Report to Congressional delegation and gives briefing if requested.				
Organization	27. OEA makes follow-up visit to community to discuss Economic Survey Report findings, proposed strategy and recommended development actions and local leaders.				

Phase	Development Action Milestone	Responsible Party	Target Date	Completion Date	Comments
Property	28. Military Department with OSD(I&H) concurrence submits Disposal Report to Senate and House Armed Services Committees (ASCs).				
Property	29. Military Department transmits preliminary Report of Excess to General Services Administration (GSA).				
Organization	*30. Community applies for Federal funding assistance for local organization.				
Organization	*31. OEA assures formation of community organization for economic adjustment (Local Economic Adjustment Council).				
Organization	32. Community and OEA determine need for hiring professional coordinator and staff for Local Economic Adjustment Council				
Property	33. Congressional ASCs clear Disposal Report.				
Planning	34. OEA evaluates need for Federal Team (EAC) Visit.				
Planning	35. OEA organizes Federal Team Visit.				
Planning	36. OEA coordinates Federal Team Visit with Local Economic Adjustment Council.				
Planning	37. OEA formally notifies EAC members and Congressional delegation of final arrangements for Federal Team Visit.				
Planning	*38. OEA conducts Federal Team Visit.				
Planning	39. OEA briefs Congressional delegation following Federal Team Visit.				
Property	40. Local Economic Adjustment Council adopts a Base Re-Use Plan.				
Planning	*41. OEA completes and distributes Federal Team Report.				

Phase	Development Action Milestone	Responsible Party	Target Date	Completion Date	Comments
Planning	42. OEA gives briefing to Congressional delegation on Federal Team Report if requested.				
Planning	43. OEA discusses Federal Team Report with Local Economic Adjustment Council.				
Planning	*44. Local Economic Adjustment Council adopts Federal Team Report.				
Planning	45. OEA transfers lead responsibility from Project Manager to Regional Director.				
Implementation	46. Local Economic Adjustment Council initiates industrial solicitation campaign.				
Property	47. Military Department provides Local Economic Adjustment Council with list of available related personal property (equipment).				
Property	48. Local Economic Adjustment Council identifies equipment for retention as related personal property.				
Property	49. OEA approves Local Economic Adjustment Council's list of related personal property and notifies Military Department of approval.				
Property	50. Military Department places approved related personal property in holding account.				
Property	51. OEA accepts community plan for interim use of base and equipment to be excessed if consistent with economic recovery plan and community's Base Re-Use Plan.				
Property	52. GSA concurs in community plan for interim use.				
Property	53. Local Economic Adjustment Council applies to Military Department for interim use of base and equipment to be excessed.				
Property	*54. Military Department, with concurrence of GSA, approves interim use of base and equipment to be excessed.				

Phase	Development Action Milestone	Responsible Party	Target Date	Completion Date	Comments
Property	55. Military Department notifies Senate and House ASCs if annual fair market rental value for interim use exceeds \$50,000, unless previously included in Disposal Report.				
Property	56. Local Economic Adjustment Council applies to Military Department for protection and maintenance (P&M) contract covering other property not under interim use lease or license.				
Property	*57. Military Department submits Report of Excess to GSA and GSA accepts it.				
Property	58. GSA screens Federal agencies to determine if property is surplus to their needs.				
Property	59. GSA declares former base property surplus to Federal need.				
Property	60. GSA notifies Federal program agencies, State and local governments and institutions of surplus property available.				
Property	61. Local Economic Adjustment Council responds to GSA's Notice of Surplus Determination, advising GSA of its interest in acquiring surplus base property through public benefit conveyance or negotiated sale.				
Property	*62. GSA formulates a property disposal plan.				
Property	63. Local Economic Adjustment Council applies for public benefit conveyances of surplus base property.				
Property	64. Local Economic Adjustment Council establishes local management organization to acquire and manage property.				
Property	65. GSA appraises property to be sold by negotiated sale for "highest and best" use.				

Phase	Development Action Milestone	Responsible Party	Target Date	Completion Date	Comments
Property	66. Local Economic Adjustment Council obtains appraisal of property to be acquired by negotiated sale.				
Property	67. GSA and/or Federal program agency complete environmental assessment or draft EIS on property to be conveyed or sold.				
Property	68. GSA and/or Federal program agency file draft EIS with Council on Environmental Quality (CEQ).				
Property	69. GSA and/or Federal program agency receive public comments on draft EIS.				
Property	70. GSA and/or Federal program agency file final EIS with CEQ.				
Property	*71. GSA and sponsoring Federal program agencies effect public benefit conveyances.				
Property	72. GSA sends proposed negotiated sale agreement to House and Senate Government Operations Committees for approval.				
Property	*73. GSA completes sale and transfer of property to community.				
Implementation	74. Community applies for Federal grants for development of property and other development objectives.				
Implementation	*75. Federal agencies approve grants for development of property and other development objectives.				
Implementation	76. Community proceeds with local development.				
Implementation	77. OEA provides ongoing technical assistance.				
Implementation	78. Regional Director recommends deactivation of project.				

APPENDIX C

Technical Analyses

1. Size of Data Base

A copy of a sample input and output format for a project status report is included in Appendix B and described in Section III A. There are three groups of items:

- An identification section of approximately 200 words that should remain substantially unchanged from the beginning to the end of a project
- A status items section with an approximately 200 word narrative of current status, personnel status items totalling 30 words and 30 numbers, and two tables (Program Financing and Civil Re-use of Property) of about 250 words altogether
- A development action milestones section averaging 100 action items of about 80 words each. (The narrative status in the "Comments" column would be required only for approximately 25 significant action items and would be short—hence the estimate of 80 words per action item.)

Data for all three item groups for 60 current projects and for two groups of items - the identification section and status items section - for about 200 past projects would be loaded into the data base initially. In addition, there would be significant events of about 50 words each, reported daily, that would be unlikely to exceed the following frequencies:

- 2 per week for each of 10 high intensity projects
- 1 per week for each of 30 medium intensity projects
- 1 per month for each of 20 low intensity projects.

These estimated frequencies are based on discussions with OEA staff members. The significant events would be retained in the system until a project had been updated (but at least for a week). The maximum number of significant events in the system would be:

$$\begin{aligned} & 2/\text{week} \times 10 \text{ high intensity projects} \times 2 \text{ weeks between updates} \\ & + 1/\text{week} \times 30 \text{ medium intensity projects} \times 4 \frac{1}{3} \text{ weeks between updates} \\ & + 1/\text{month} \times 20 \text{ low intensity projects} \times 3 \text{ months between updates} \\ & = 235 \text{ significant events.} \end{aligned}$$

The total number of characters in the data base would be:

60 current projects (200 words + 200 words + 60 words +
250 words + 100 action items/project x 80
words/actions item)

+ 200 inactive projects (200 words + 200 words + 60 words + 250 words)

+ 235 significant events (x 50 words each)

= 676,350 words x 6 characters/word

≈ 4 million characters

2. Average Daily Workload

An estimate of the daily workload to maintain the data base makes use of the updating frequencies which were previously given as:

- once every two weeks for each of 10 high intensity projects
- once a month for each of 30 medium intensity projects
- once a quarter for each of 20 low intensity projects.

The number of development action (and status) items involved in a routine update are estimated from discussions with OEA staff members as:

- 10 every two weeks for a high intensity project
- 10 per month for a medium intensity project
- 5 per quarter for a low intensity project.

Each routine update is estimated to involve 25 words per action item plus 200 words for an update of the current status.

In addition, there are significant events, reported daily, that are estimated to occur with the following frequency:

- 2 per week for each high intensity project
- 1 per week for each medium intensity project
- 1 per month for each low intensity project

Each significant event is estimated to involve 50 words.

The daily workload required to maintain the data base is estimated as:

10 high intensity projects (10 action items every two weeks x 25 words/action item + 200 words current status every two weeks + 2 significant events/week x 50 words each)

+ 30 medium intensity projects (10 action items/month x 25 words each + 200 words current status/month + 1 significant event/week x 50 words each)

+ 20 low intensity projects (5 action items/quarter x 25 words each + 200 words current status/quarter + 1 significant event/month x 50 words each)

= 10 (450 words/10 day biweek + 100 words/5 day week) + 30 (450 words/20 day month + 50 words/5 day week) + 20 (325 words/60 day quarter + 50 words/20 day month)

= 1,780 words/day x 6 characters/word

= 10,700 characters/day.

Such a workload can be placed in context by comparing typing at 60 words per minute, which is equivalent to 360 characters per minute. The average daily workload for the data management system is equivalent to about 30 minutes of typing. Considering data collection, verification and other functions, a generous estimate for maintaining the data base would be two hours per day.

The peak workload would not be very different from the average workload, since all updating, except for significant events, takes place on a routine staggered schedule. The peaks would occur quarterly and annually when outputs from the system (which involve little OEA staff time) are most heavily concentrated.

3. Printout Requirements

Printout requirements can be met by a number of devices:

- A typical terminal can print at a rate of 30 characters per second or 108,000 characters per hour.

- A high-speed terminal can print at a rate of 120 characters per second or 432,000 characters per hour.
- A high-speed printer can print at a rate of 240 characters per second or 864,000 characters per hour.

Daily printout requirements consist of significant events—an average of 11 per day (based upon the frequencies identified above) for reporting to the Director and 14 per day for aid in discussing project updates:

- 25 significant events per day @ an average of 50 words each
- = 1,250 words per day
- = 7,500 characters per day @ 6 characters/word.

The daily requirements could be accommodated easily on a typical terminal.

Weekly printout requirements consist of a weekly significant event report and project status reports for those projects updated during the week. The weekly significant event report consists of an average of 55 significant events (based upon the frequencies identified above) @ 50 words each and 6 characters/word or 16,500 characters which could be accommodated on a typical terminal in about 10 minutes of printing time. The weekly printout of project status reports consists of:

- 5 high intensity project reports (i.e., 10 projects every two weeks)
- 8 medium intensity project reports (i.e., 30 projects every month)
- 2 low intensity project reports (i.e., 20 projects every quarter)

or 15 project status reports @ an average of 10,000 words each. The total status report requirement is 150,000 words or 900,000 characters @ 6 characters/word. That requirement could be met in about one hour with a high-speed printer.

Quarterly printout requirements include project status reports for all current projects and a listing of development action milestones by Federal program agency and region, as well as significant events:

- Status reports @ 10,000 words each for 60 projects

- A listing of development action milestones for 15 agencies in 10 regions each for an average of 40 action milestones of 80 words each (i.e., 15 x 10 x 40 x 80 = 480,000 words)
- Significant events of 2,750 words.

The total requirement is 1,100,000 words or 6,500,000 characters, which could be met in about 7.5 hours with a high-speed printer. Initially, OEA may want to send the listing of development action milestones to only the most active agencies (e.g., Department of Commerce, Small Business Administration, General Services Administration, Housing and Urban Development).

Annual printout requirements include summary status reports over all projects for use in preparing OEA's annual report, summary status reports over all projects by State, summary status reports over all projects by Federal region and status reports by Federal program agency and region, as well as a complete updated set of project status reports for all projects and significant events:

- Summary status report over all projects @ 600 words
- Summary status reports @ an average of 600 words each over all projects by State for 30 States
- Summary status reports @ an average of 600 words each over all projects by region for 10 regions
- Status report by agency and region @ 500 words each for 15 agencies in 10 regions each
- Status reports of 600,000 words for all high, medium and low intensity projects
- Significant events of 2,750 words.

The total requirement is 700,000 words or 4.2 million characters, which could be met in about 5 hours with a high speed printer. The development action items by agency and region would not be included as part of the annual output because of the existence of the summary status reports by agency and region.

APPENDIX D

Operational Considerations of the Air Force Data Services
Center's Computer System

The AFDSC maintains a Honeywell Series 600 (G-635) computer in the Pentagon for unclassified data processing projects, including those for OSD. The computer system, referred to as "System C," offers both time-sharing and batch processing capabilities.

System C would accommodate a program package that meets the requirements of OEA's data management system. There are presently no data management packages for general application available on System C. A software package satisfying OEA's needs can be custom designed, however. Optimal utilization of System C's capabilities would be realized in a system with the following characteristics:

- The major portion of processing is deferred to batch operations.
- Storage space requirements for large quantities of data can be met with off-line devices.
- Required output is determined in the design stage; operation of the data base is routine and less responsive to spontaneous queries.

The following flow of operations considers these characteristics, while giving OEA the capability to manage the data base effectively. OEA's Information Coordinator would collect project update data and key the data onto a magnetic tape on OEA's terminal, thereby providing data back-up (redundancy). Once the data collection is complete, the OEA user would enter the update data into the computer system from the magnetic tape. The user would then interact with the system through a time-sharing interface program that would edit and verify the update data and print out the verified data at the terminal. The user would know immediately whether or not the update data were correct in format and size. The verified update data would be saved and batch processed to update the data base. Finally, the OEA operator would request reports in a time-sharing mode and have the reports prepared in a batch mode.

With these types of procedures, the connect time (the time during which the user is actually in communication with the system) is minimal. The user would not have to wait at the terminal while the data base was updated. For each job submitted to batch operations from the terminal, the user is supplied with a job identification number. The user can return to the terminal to determine if the job is completed. When batch processing has been terminated, the output reports can be picked up at the AFDSC Production Control Station.

A notable feature of Honeywell Systems is that *easy transition is made between the time-sharing and batch modes*. Consequently, program procedures can be constructed to allow the non-programmer to operate the system easily. The user needs training only for the time-sharing functions of data entry, data verification and update/report job requests. No technical knowledge of sorting, record selection and update/report operating functions is necessary.

Sorting and record selection on the G-635 is facilitated with the Data Extract and Report Generator package (DEAR). The package is very efficient and could be adapted to use in the sort and record selection processes.

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