

May 10, 1971

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NONCAPITAL PROJECT PAPER (PROP)

Country: Worldwide

Project No. 931-11-570-951

Submission Date: 10, 1971

Project Title: Family Planning Management Information System

U.S. Obligation Span: FY 1971

Physical Implementation Span: FY 71 and FY 72

Gross life-of-project financial requirement: \$561,275

I. SUMMARY DESCRIPTION

A. Background Discussion

Service statistics are the heart of any evaluation system for family planning programs. These data cover:

1. patient characteristics
2. program continuation rates
3. service volume
4. personnel and financial inputs
5. commodity inventories
6. outreach activities, etc.

Essentially they comprise a record of what is happening in the program at all levels. AID, through the Accelerated Feedback project, has undertaken to improve the collection of these data in the programs with which we deal. The initial emphasis of the Accelerated Feedback project is on the first 3 items above, with the expectation that work in the other areas will follow. While this effort can be viewed as a vital first step in the establishment of adequate evaluation systems, this activity must be augmented in order to attain its full potential.

First, the information mentioned above (even after considerable refinement) is both voluminous and diverse. It is difficult for one man to keep track of all information to the extent that he can fully utilize it in program management.

Beyond this, service statistics are not the sole source of data used in the evaluation of family planning programs. Information from KAP surveys, censuses, follow-up surveys, vital registration systems, commercial distribution records are also significant in assessing program performance and making decisions to improve it. It is readily seen that these additional variables, even if incorporated in the decision process only superficially, complicate the already difficult task of the program administrator

The project will seek an approach to the analysis of these diverse data which will produce information specific to the needs of family planning program managers at all levels in the administrative hierarchy. This analysis will be related to the decisions the program administrator must make on the maximum utilization of the available data.

Finally, many programs, even if they had access to this type of specific information, would be unable (or unwilling) to implement the resultant decision because of the lack of an adequate administrative structure. It is necessary to consider not only the availability of information but the mechanisms (people) by which program changes are carried out. An example of such a mechanism would be the creation of regional liaison officers, whose job it is to see that information on operations flows smoothly to the center and that the orders from the center are carried out in the clinic (and to assist where needed in the transition to new operating regimes).

The Management Information System (MIS) project proposes to address these problems through the application of modern management techniques. These are perhaps best exemplified in the highly quantitative but very practical techniques of "operations research" and a subset of approaches which fall under the heading of management information systems. This is not to imply that programs do not already have management systems or are not already facing these problems. The real issue is that in most instances the participants are only vaguely aware of that system and their role in it. This is important in that knowledge and awareness must precede improvement.

B. Specific Project Goals

The goal of the MIS project is to test the management information system approach in a specific operating family planning program. The emphasis will be on the development of efficient methods to analyze service statistics and apply these data to program management, with a broader concern for the development of methods for assisting program managers in understanding the implications of the program environment (data from censuses, KAP surveys, vital registration systems, etc.) and for translating these implications into improved program operations. The thrust of this effort will be to develop a management framework that is understood by and useful to family planning program managers, and this goal will be pursued by testing this approach in a specific operating situation. The criteria for project success will include the development of end products that are appropriate to local conditions and within their capabilities, are perceived as useful by the local program managers, and are in fact used. Even more important will be the impact of the project in improving the management of the FP program. This experience will serve as a basis to determine the impact this approach could have in other countries.

II. SETTING AND ENVIRONMENT

Family planning service delivery programs collect information on clients served and activities performed by program personnel. This is usually the basis of the tabulations and reports known as service statistics, which programs use to document their activities, pay their workers and chart the progress of their program. Although the format of the service data and the output information generated may vary extensively from program to program, it is clear that certain core elements do persist throughout. Input data from client visits, field worker reports, and facilities utilization can be massive in volume and of variable quality. These primary data are usually aggregated so that the top levels of management see only totals and learn little of the changes in the delivery system that could affect their decisions. The time lags in aggregation and processing may cause data to lose relevance for operational decision making.¹ Even though the data may be useful for research on demographic impact, accurate, timely, and appropriate information is still needed to properly manage family planning systems. In summary, existing service statistics data are often of poor quality, redundant, misaggregated, or untimely.

A.I.D. is presently trying to upgrade service statistics systems through the Accelerated Feedback Project, but the primary emphasis is on rapid collection and tabulation of the data, with some focus on simple analysis and utilization. A need still remains to derive the implications of these data for both long and short-term program management and set up management systems which can act on the information. Finally, service statistics are often viewed in relative isolation without linking them to other sources of

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See Donald Bogue, Rapid Feedback for Family Planning Program Improvement Volume I.

evaluative data, limiting the "information" content of all the data. This project hopes to fill this gap by applying modern information-handling techniques to the use of the service and other evaluative statistics.

It is obvious that the Accelerated Feedback project complements the MIS project. Any information system relies on adequate data collection mechanisms and the goal of the Accelerated Feedback project is the improvement of service statistics. On the other hand, a data collection system (such as Accelerated Feedback) while highly useful, is unlikely to give specific assistance in program decision making.

The MIS work is largely developmental, and consequently will have a lead time of well over one year before generalization beyond the test site can be contemplated. The data collection system envisioned in the Accelerated Feedback project is presently, or soon to be, operational in some countries (for example Jamaica and Guatemala). Although the Accelerated Feedback project does have a certain lead time, it is not as long as that of the MIS project. Work on the latter must begin immediately if the lag between the two projects is to be minimized.

The two countries mentioned above would be likely sites for the MIS development work, as would several other countries with relatively advanced family planning evaluation units.

A. Management Information Systems

Management information systems themselves are not new; they have been widely developed (but not as widely implemented) for various business applications. An example of this is the model-based information system developed by Professor Urban (one of the principals in this project) called

SPRINTER (Specification of Profits with Interdependencies). SPRINTER was developed to assist in the decision-making process of marketing a new consumer product, with the goal of predicting the profitability of various strategies. This model is so constructed that it is able to take into account micro-level behavioral data, adding this difficult but important area to the analysis. Urban adapted this approach to "A Model for Strategic Planning of Family Planning Programs" and to a decision framework for the Metro Atlanta Family Planning Council. While the former was a theoretical framework of the adoption, the latter was an attempt to emulate an actual operating situation.

More attention must be paid to the uses of program information for decision making. Every visit to family planning field programs is bound to include a clear image of field workers, nurses, and administrators engaged in the generation of paper, and stacks of records found clogging office areas often appear to be the primary product of the program. The height of the stacks and the strength and age of the knotted cords surrounding even last month's records are testimony to the relevance and lack of usage of the information. If information is not used by managers (or the service personnel), the costs of collection and tabulation are wasted. In order to make information relevant to managers, the decision-making process must be understood, and the information actually needed for each decision must be specified. When information is presented in a more directed form it is more likely to be used.

The development of an information system in this context will improve the potential performance of a family planning program since it is based on information needs rather than data availability. In many instances, specific knowledge of the data required may actually diminish the traditional reporting requirements at the level of a local service unit. The thrust of this project is to develop an approach to information collection, processing and utilization that promotes better decision-making and program innovation in an actual LDC operating environment. It is not simply directed at synthesis of techniques for generalized manipulation of descriptive historical data.

Perhaps, most importantly, this project will assist the administrators in conceptualizing both the program structure and, more specifically, the way they function within this structure. All too often a program functions on the basis of an arbitrary set of rules and procedures that have never been thought out. These rules may not be stated, and the administrators following them may not be explicitly aware of the impact on their behavior. In an environment such as this, it is almost impossible to improve program management because the participants lack the requisite knowledge of the present situation (more likely, they have never thought it through). This process is viewed in this project as the key to improvement of FP program management-evaluation.

III. STRATEGY

The overall strategy is to develop a prototype decision information system in one country and then to disseminate this knowledge through cooperation with international organizations, training and seminars, and direct technical assistance.

In order to facilitate the diffusion and to involve all interested agencies, an advisory committee will be assembled. The project will draw on international experience for its conduct and carry out the continuing implementation of the resultant prototype methodologies. The World Health Organization and the United Nations, with their emerging emphasis on technical assistance in population, may provide assistance in the implementation phase of this work. Two phases will be funded under this PROP.

In the first phase, to be completed in 9 months, potential field locations will be visited as soon as possible and a site selected for practical development of the system. Particular attention will be paid to sites that offer an adequate evaluation base to speed development of generalized information support. An example would be Guatemala, where a computer-based client record system is in operation, with technical assistance from the Family Planning Evaluation Activity, CDC, DHEW. This type of cooperation has been discussed positively with Dr. Carl Tyler, Director of the Family Planning Evaluation at CDC (presently working with Guatemala on their client record system), who reports further that Guatemalan staff are interested in the work that the Family Planning Research Project at MIT has been doing for the Atlanta area. The prototype client record system from which the Guatemalan work has evolved was developed by CDC consultants and Management Services for Health personnel formerly at CDC. Other potential field sites might include locations such as Jamaica (where the World Bank is supporting the family planning program, and an effort is being contemplated to update the information processing system) or other locations where local interest and capability exists.

Work on the second phase will not proceed until the test site, the plan of action and the host country counterpart have been cleared by AID.

The strategy within the second phase will concentrate on the testing of the MIS approach in a specific country. It is recognized that the individuals within the program will be the key to the success of this effort, because in the final analysis, it is they who accept and use the MIS. It is to this end the host country counterpart, identified in phase 1, has been made a part of this project.

The approach will be to place a minimum of two project staff members full time in the test country. From that position they will assist the program administrators in "thinking through" their problems and program. This will be an iterative process drawing an increasingly precise picture of the actual situation. The basic strategy is to make program management considerations as explicit as possible and hence amenable to examination and criticism. It is in this environment that the decisions that are made, the information needed, and the mechanisms for executing these decisions will be modified to fit the needs that exist.

Implied in this approach is a substantial commitment of time (on an intermittent basis) by the program administrators. A system imposed externally will just not work. For this reason the participation of host country personnel is a necessity. A Mission must take this into account. The host country commitment must be real.

Once the basic framework, decision points, and data needs have been specified, the question of the information and analysis system can be addressed. At this point, the use of the computer may be called for because of the complexities involved. But this is seen as a tool or aid rather than the substance of the project.

* This project will produce an analytical framework for using and understanding the information, a detailed case study of the first

implementation experience, and any computer programs to assist in the analysis, which can be used as a starting point for similar efforts in other countries. Some of the computer work is likely to be useful in training as well as action programs; the feasibility of such use will be explored.

Organization

The Family Planning MIS project will be administered by Management Services for Health, under the guidance of Ronald O'Connor, Director, and Professor Glen L. Urban, Research Consultant. Other personnel will include an implementation manager, a demographer-statistician, and a systems development specialist, with appropriate programming and system development support, unless these skills are already available locally.

The MIT Family Planning Management Research Center subcontract will support the efforts in systems design, software specification, and model building; and other organizations may be used as appropriate to build an effective decision information system and assist its diffusion.

IV. PLANNED TARGETS, RESULTS, AND OUTPUTS

The first formal output of the MIS project provided by the Contractor will be summarized for review in a descriptive document covering all work preliminary to the actual prototype implementation and including a detailed analysis of the field site environment and recommended strategy for implementation. It is the contractor's intent to produce this report within 6 to 9 months (that is by December 31, 1971). This will be reviewed by AID, and, if acceptable, a full-scale implementation and development effort will be carried out in the remaining

A. Phasing

There are three major areas of activity proposed in this project. The major reporting segments which will document these three phases are:

Phase 1. Exploratory Work, Research and Development of Initial Country Plan (6 to 9 months)

This phase will be documented by reports on: (1) specifications of existing service statistic systems; (2) presently perceived core information needs in operating programs; (3) the general picture of computational potential available; (4) full report on each site visit; (5) the suitability of selected location for prototype field work and plan of action (including detailed information on the present system as a basis for later evaluation); and (6) the recommendations of the program group and the Advisory Council on Phase 1 findings with regard to Phase 2 implementation.

Phase 2.A. Prototype Development and Implementation

This phase will produce, subject to local conditions and the uncertainties therein, reports and documentation on: (1) detailed picture of program and management-evaluation structure in the selected site; (2) an evolutionary decision information system operating in one country; (3) any basic decision-support structures (may be in the form of computer programs) needed to assist program managers in integrating the diverse program elements; (4) an assessment of possible collaboration with international agencies in the diffusion of this program at the termination of Phase 3; and (5) present structure of program management systems, with suggestions as to how they must be modified to utilize profitably the output of the decision information system.

Phase 2B. Generalization of Methodology

The final phase will be documented by: (1) training materials and manuals produced and refined from the implementation experiences; (2) generalized processing programs based on those developed in the prototype setting, but constructed as flexible user-oriented tools; (3) flexible decision-support model structures as a framework for further applications; and (4) a plan for the implementation of these methodologies through training and technical assistance; and (5) detailed case study of the implementation experience and its impact.

B. General Measures of Performance

While the above outputs encompass the paper measures of performance of the program, the contractor recognizes that the real measures of success lie in personal interactions and not technical innovations. Acknowledging the uncertainties inherent in any international cooperative effort, the contractor's primary internal measurement of performance remains contingent on the degree to which the management system developed is perceived by local program administrators as their own. The challenge is to structure the technology in a manner that is clearly under the control of the local manager and expands to meet his needs in an evolutionary, supportive, self-directed way. Beyond this, the effort must be self-sustaining both in that it continues to function effectively after the external assistance is removed and takes into account the political and operating realities of the setting in which it operates. Emphasis will be placed on the in-depth documentation of the experience at the first site to facilitate generalization and evaluation of the approach.

V. COURSE OF ACTION

The project will be of 24 months duration, covering exploratory development at a specific field site. The steps planned are:

1. A series of visits will be made to countries which show potential as test sites. The contractor will work closely with the USAIDs to determine those countries which have real interest in this area. This is especially important because of the close working relationship that must be formed between the contractor and program managers in the test site. Initial indifference will make this relationship difficult to achieve. Based upon initial expressions of interest, the contractor will select the 5 or 6 most promising contacts and conduct a site visit to each. The contractor will be looking for several things on this trip.

a. They will assess the degree of interest in this approach, first hand.

b. They will examine the present management-evaluation system in each country. The types of data collected, the frequency of collection, the types of reports generated and their distribution will be examined. In general, they will get a "feel" for the FP program efforts and the types of evaluation presently being used.

c. The availability of computer equipment will also be determined.

d. Perhaps most importantly, the contractor will become familiar with the individuals responsible for program management. The potential of the administrators to utilize and participate in the development of such a system is crucial.

e. Finally, the systems by which decisions are transmitted to the operating units of the FP program will be examined.

Based on these criteria, a site will be selected from among those visited. Because the project is in the testing and developmental stage, the site most favorable to success in terms of interest and previous experience will be chosen. This choice, along with a plan of action, will be submitted to AID for clearance.

2. Formation of an international advisory group of experts to guide the project and promote dissemination of the project results. This group will meet semiannually to review the progress of the first phase of the program. It may include advisers from major international agencies such as the World Health Organization and the World Bank, The Population Council, as well as the population centers and operating field programs.

The major purpose of this effort is to involve the other groups working in population in this project. This will occur at two levels. First it is necessary to keep abreast of other efforts in this area and the advisory committee will be a formal mechanism for accomplishing this. Secondly, it is very important that the various organizations participate in the spread of this approach for FP management-evaluation if the project proves a success. By involving these other groups, the resources and impetus behind this effort can be multiplied. To get this type of cooperation, it is important that the other groups working in population be involved from the start and have a real sense of participation.

3. The contractor will place a minimum of two staff members in the test site as soon as the decision on the country is made. Additionally, the project director will participate in this period of initial contact.

The initial efforts will be to obtain detailed knowledge of program operations and management and to establish working relationships with the host country officials. Work on this and subsequent steps will be contingent on the successful completion of steps 1 and 2 as cleared by AID.

4. Once this basic groundwork has been done, work will progress on getting the program administrators to "think through" their program and their roles within it. The development of this framework is probably the most crucial of the project for several reasons.

a. An externally imposed picture of program operations, decisions, and problems can not capture the political and cultural realities that program administrators must face. No management system can afford to ignore these factors, because such a system will not be either useful or meaningful.

b. If the program administrators do not understand and feel no sense of participation in the system developed, it is highly unlikely that they would put enough trust in it to use it in decision making. Rather, they would fall back on the old system of program administration.

c. It is necessary to place the information in a framework in which it has meaning. This picture should provide a basis for deriving the implications of certain results or findings and relating them to the decisions made within the FP program.

d. Finally, it is important that administrators explicitly map out the system used for translating decisions into action. Specific attention must be paid to this problem if improved decisions are to have any effect.

This framework requires an evolutionary process of development and testing. Since one of the foci of this project is how information is

used, attention will be directed as specifying how information from service statistics and KAP surveys can be integrated to obtain overall program implications. This implies building a model of how a manager sees his program operation. This structure will probably be simple initially, but can be elaborated by the manager as he learns more about his system and desires to more fully utilize his data. This will be accomplished through continuous contact between the program administrators and the project field staff. To this end a specific host country counterpart to work on this project will be identified.

5. Once the initial program framework is arrived at, the filling of gaps in the data available and translating the data into the information needed for specific decisions must be accomplished. Although a country with advanced data collection mechanisms will be sought as a test site, it is likely that some changes will be needed. It is also likely that an in-depth review of the data collected will indicate areas where the reporting burden can be lessened. The contractor will assist the host country in making these shifts, with a minimum of disruption. The goal will be to accomplish changes within the existing data collection system.

In the analysis of the data, the contractor will focus on making the information in its final form very specific to the needs of the individuals within the FP organization. Routines to perform the necessary data reduction and analysis will be developed. These routines will present the information in the simplest and most useful form feasible. Many of these routines or components will be sufficiently complex that computerization will prove necessary, but the emphasis will be on the most efficient way of performing these tasks rather than on "using the computer."

Those routines or components which make use of the computer will be designed flexibly in two dimensions. The first dimension is, of course, the basic modules meet the program's initial information needs in useful and understandable ways. They will be designed to expand (either internally or through the addition of other components) in an evolutionary direction as family planning executives perceive the need for, and request additional data analysis.

The second dimension will be to develop a series of components that will permit expansion of the information-handling capability as more computational capacity and user sophistication becomes available. Specifically, a basic set of modules would expand to the limits of the IBM 360/30, for example, then expand again in scope for programs that might have access to higher order 360 equipment.

6. As mentioned earlier in this proposal, no management information system will improve a program in isolation. In recognition of this, the contractor will also assist in the development of a management structure which will utilize the full potential of the MIS. This work will include a full survey of the present administrative structure in the prototype country with specific (but practical) suggestions for strengthening it. These suggestions will be in terms of changed administrative structure, communications vehicles, training and staffing patterns, and, in many instances, direct flow of the information on which decisions are based (which imply action).

7. It is recognized that it is vital, if the project is to have any significant impact, that provision be made for applying the findings to other countries. This step of the project will not be funded at present but will be funded by task order when the progress at the test site makes

it appropriate. This does not imply that portions of Step 7 may not be funded before the completion of the rest of the project. Several mechanisms to be used in implementation are:

a. The contractor will work closely with international organizations (such as the UN) and other AID contractors. This will enable the latter groups to utilize the approaches developed in their technical assistance efforts.

b. The contractor will work directly in other countries to implement the approaches developed at the test site.

c. The contractor will hold seminars and develop training activities designed to give LCD program evaluators access to the approaches developed. One facet of this training envisions an interactive computer model designed to let the program evaluator explore various evaluation and data analysis techniques and tailor a system which fits his needs.

VI. EVALUATION

The contractor will be primarily evaluated on the basis of his success in the test country. He will be evaluated not only on his ability to implement a working and potentially useful management information system, but more importantly on the actual impact on the program.

The status of the program before the project will be fully documented and a detailed program history over the duration of the project maintained. The major decisions in program operation made over that period along with the role of the MIS in these decisions will be an important part of the record. Also the procedures used to implement these decisions and the resultant change in the program will be reported.

Periodic site visits by TA/POP/AE staff will be important in assessing the progress of the project and determining the reactions of the program

administrators. It is also important that the involved USAID maintain continuing and close contact with the project because of their unique position and familiarity with the local situation.

This evaluation will form the basis for expanding this activity into additional countries and suggesting modifications in the approaches used.

BUDGET

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Management Services for Health, Inc.

	1971-72	1972-73
Director (Ron O'Connor) 1/2	\$ 20,000	\$ 25,000
Implementation Manager (Lamstein)	22,000	22,000
Systems Development Specialist (S. Murthy)	22,000	22,000
Statistician Demographer (N. Murthy)	16,000	16,000
Programmer 1/2 year	7,500	15,000
Administrative Secretary	10,000	10,000
Personnel Total	\$ 97,500	\$ 110,000
Overhead	48,750	55,000
Proprietary Software	6,000	10,000
Consultants	12,000	14,000
Computer Time	5,000	15,000
Travel	12,000	10,000
On site cost estimate	15,000	20,000
Advisory Committee	10,000	10,000
TOTAL	206,250	244,000
SUBCONTRACT	36,550	74,475
TOTAL, PLUS SUBCONTRACT	242,800	318,475
TOTAL PROJECT COST	\$561,275	

#35

BUDGET SUBCONTRACT
MASSACHUSETTS INSTITUTE OF TECHNOLOGY
Sloan School of Management
Family Planning Management Research Center

	1971-72	1972-73
Faculty		
1/4 time	4,500	
3/4 time		13,500
summer (2 man-months)		4,000
Research Assistant		
1/2 time	7,000	
full time		11,300
Administrative Secretary		
1/4 time	2,500	
1/2 time		5,000
SUBTOTAL	<u>\$14,000</u>	<u>\$33,800</u>
Overhead (54% in Yr. 1) (56% in Yr. 2)	7,560	18,928
Benefits (16% in Yr. 1) (17% in Yr. 2)	2,240	5,747
SUBTOTAL	<u>\$23,800</u>	<u>\$58,475</u>
Computer time and Terminal	5,000	10,000
Travel	2,000	4,000
Equipment & Space Renovation	4,000	--
Telephone	250	500
Reproduction	1,500	1,500
TOTAL SUBCONTRACT	<u>\$36,550</u>	<u>\$74,475</u>

Proj: 9320951
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PROJECT AUTHORIZATION

1. PROJECT NUMBER 931-11-570-951		3. COUNTRY Worldwide	4. AUTHORIZATION NUMBER 0132
2. PROJECT TITLE Family Planning Management Information System			5. AUTHORIZATION DATE
			6. PROP DATED May 1971

7. LIFE OF PROJECT

a. Number of Years of Funding: 1
Starting FY 19 71; Terminal FY 19 71

b. Estimated Duration of Physical Work
After Last Year of Funding (in Months): 24

FUNDING BY FISCAL YEAR (in U.S. \$ or \$ equivalent)	DOLLARS		P.L. 480 CCC + FREIGHT	LOCAL CURRENCY Exchange Rate: \$1 =			
	Contract GRANT	LOAN		U.S. OWNED		HOST COUNTRY	
				GRANT	LOAN	JOINTLY PROGRAMMED	OTHER
Prior through Actual FY							
Operational FY 71	561,275						
Budget FY							
B + 1 FY							
B + 2 FY							
B + 3 FY							
All Subsequent FY's							
TOTAL	561,275						

9. DESCRIBE SPECIAL FUNDING CONDITIONS OR RECOMMENDATIONS FOR IMPLEMENTATION, AND LIST KINDS AND QUANTITIES OF ANY P.L. 480 COMMODITIES

10. CONDITIONS OF APPROVAL OF PROJECT

Regional Clearances: *(phone)*

- LA, George Coleman (Draft) *rd*
- EA - clearance denied, R. Pagan (no experience in East Asia and inadequate consideration of non-rational factors) *rd*
- AFR: no comment at this time *rd*
- NESA, John Alden (clears, indicates no NESA countries sufficiently advanced to be test site, but results should prove useful) *rd*

(Use continuation sheet if necessary)

11. Approved in substance for the life of the project as described in the PROP, subject to the conditions cited in Block 10 above, and the availability of funds. Detailed planning with cooperative country and drafting of implementation documents is authorized.

This authorization is contingent upon timely completion of the self-help and other conditions listed in the PROP or attached thereto.

This authorization will be reviewed at such time as the objectives, scope and nature of the project and/or the magnitudes and scheduling of any inputs or outputs deviate so significantly from the project as originally authorized as to warrant submission of a new or revised PROP.

A.I.D. APPROVAL <i>[Signature]</i> Mr. Joel Bernstein	SIGNATURE	A/POP R.D. Bush <i>rd</i>		DATE
		CLEARANCES		
A/	TITLE	TA/POP, T.C. Lyons <i>TL</i>	5/19/71	
		TA/POP, E.R. Backlund <i>EB</i>	5/16/71	
		TA/POP, R.T. Ravenholt <i>RT</i>	5-6-71	
		TA/PM, J. Kean <i>JK</i>	5/30/71	
		TA/PM, K.S. Levick <i>KL</i>	6/3/71	