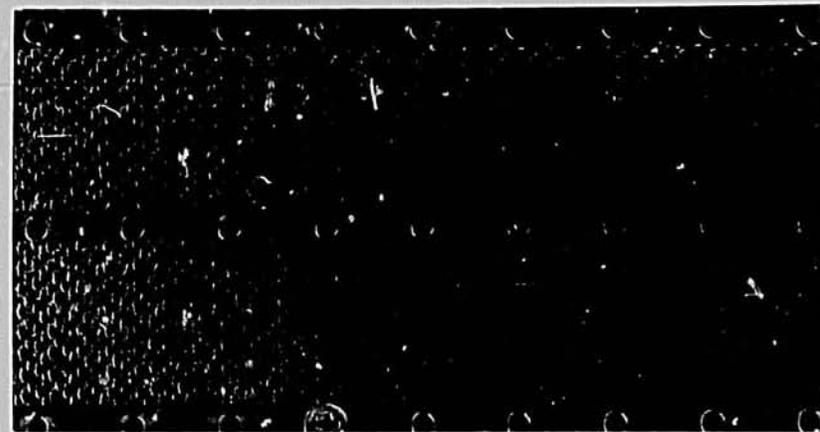


PN-AAL-392

UNITED STATES
AGENCY FOR INTERNATIONAL DEVELOPMENT

THE
INSPECTOR
GENERAL



Regional Inspector General for Audit
WASHINGTON

SURVEY OF AID's
REVISED AUTOMATED MANPOWER
AND PERSONNEL SYSTEM
(RAMPS)

Audit Report No. 0-000-82-105

August 26, 1982

While RAMPS is essentially a useful management information and data processing system, a number of improvements are required to assure its effectiveness. Reduction in the number of reports produced and distributed was found to be feasible. Timeliness of the reports and reliability of data were identified as problem areas requiring attention. Internal procedures in both Personnel Management and Data Management were identified that should be corrected to assure that RAMPS data is timely and accurate. These offices have taken a number of steps already to correct these problems, but further effort is required.

SURVEY OF AID'S REVISED AUTOMATED
MANPOWER AND PERSONNEL SYSTEM
(RAMPS)

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EXECUTIVE SUMMARY

Introduction

The purpose of the Revised Automated Manpower and Personnel System (RAMPS) is to provide an automated management system for Agency personnel planning and tracking. The primary objectives are to provide timely and accurate personnel data for improved selection and assignment decisions and to automate clerical processing to the maximum extent possible. AID's Office of Personnel Management (M/PM) has delegated responsibility for these objectives to the Resources Planning Branch (M/PM/PDE/RP) which consists of a Personnel Information Center (PIC) Section and a Reporting Section. Data is submitted daily by personnel operations employees (M/PM/OS, M/PM/W and M/PM/EPM) to PIC for input to the Office of Data Management (M/SER/DM) which is responsible for the computer equipment, programs, and data base files needed for RAMPS to operate. Transmitted data printouts are returned to personnel operations for verification and corrections. The New American Payroll System (NAPS) reads and records pertinent data from the RAMPS transaction file. RAMPS automatically generates periodic reports which are distributed by PIC.

The purpose of the audit survey was to evaluate the effectiveness of RAMPS from a user's perspective and to identify causes that inhibited satisfactory performance. In addition, the system security was reviewed, Resources Planning operations were compared to the respective functional statement, and the efficiency of the Reporting Section was examined. The Office of Personnel Management also asked us to provide an opinion as to whether RAMPS should be replaced.

Findings, Conclusions and Recommendations

RAMPS is essentially a sound system that provides the information for personnel operations and management required by Agency users; however, improvements are needed to better meet users' needs. The more significant findings are:

Results of a questionnaire survey showed 26 of the 46 reports surveyed did not fully satisfy user needs. The Staffing Pattern, used Agencywide both in AID/W and in overseas missions, was not received timely and the accuracy of the data was questionable. (See pp. 3-4).

Users found data accuracy to be a significant problem. Personnel operations supervisors neither ensured necessary data was input nor reviewed input actions for

accuracy or propriety of action. Also, data errors were not corrected timely and Employee Data Records have not been sent to employees as required. (See pp. 4-6).

M/SER/DM has contributed to the accuracy problem by not testing program changes with test data and not adequately documenting program changes. Improved coordination with Resources Planning and strengthened library controls for program changes were also needed. (See pp. 6-8).

We also identified several needed improvements in the management of the Resources Planning Branch, including the elimination of the Reporting Section. (See pp 3-12).

Management Comments

Responsible officials in Personnel Management and Data Management had no major objections to our draft report conclusions and concurred generally with the report recommendations. Their responses to the draft report provided additional clarifying information and advised us of the implemented and planned actions taken to correct noted deficiencies. We have eliminated some recommendations based on actions already completed and modified the report where necessary.

BACKGROUND

The Revised Automated Manpower and Personnel System (RAMPS) is an automated information system used for daily personnel operations and for Agency personnel planning and tracking. The system provides information in the specific areas of position and ceiling management, staffing, employee evaluation, promotions, assignments and training. Almost all notifications of personnel actions including those effecting employee pay and allowances are produced by RAMPS. The primary objectives of RAMPS are: to provide timely and accurate personnel data for improved selection and assignment decisions of personnel; and to automate to the maximum extent possible the clerical processing of basic organizational, position and personnel data. Within AID's Office of Personnel Management (M/PM) the responsibility of meeting these objectives is a function of the Policy Development and Evaluation Division, Resources Planning Branch (M/PM/PDE/RP). A Personnel Information Center (PIC) Section and a Reporting Section comprise the Resources Planning Branch. PIC is responsible for the daily operations of inputting data, responding to special requests and transmitting routine reports to Agency users. RAMPS produces reports that provide information needed for personnel management and administration within AID. The Reporting Section prepares reports from RAMPS data for both internal Agency use and for outside Federal agencies. These reports include the required Federal Civilian Personnel Monthly Report to the Office of Personnel Management and the Office of Management and Budget and the Congressionally mandated Five Year Workforce Projection Report. It is important that these reports be as complete and accurate as possible.

Although M/PM has the ultimate responsibility for RAMPS' effectiveness, Resources Planning has to closely coordinate with the Office of Data Management (M/SER/DM) since they are responsible for the computer equipment, programs, and data base files needed for RAMPS to operate. In Fiscal Year 1981, RAMPS cost approximately \$496,600. The cost components were salary charges for the Offices of Data Management and Personnel Management, computer utilization charges, and contracting charges. RAMPS is projected to incur reduced costs of \$360,300 in Fiscal Year 1982. The reduction in costs is attributed to reduced projected computer utilization and contracting charges.

PURPOSE AND SCOPE OF SURVEY

A functional audit survey was performed to evaluate the effectiveness of RAMPS from a user's perspective and to identify causes that inhibited satisfactory performance. We were also asked by Personnel Management to express an opinion

as to whether the current RAMPS system is adequate or should be replaced. Replacement of RAMPS could cost several million dollars for systems design and installation and would disrupt ongoing operations.

Questionnaires about the usefulness of RAMPS reports had been sent to users as part of another audit. We reviewed and analyzed these responses. Directors from four Executive Management Staffs were interviewed, and management officials and coders from two of the three personnel operations divisions (M/PM/OS and M/PM/W) were interviewed. Reported deficiencies were examined to determine the source of any problems. Other areas reviewed were management controls in Resources Planning, assessment of the security of RAMPS to prevent manipulation of data and potential fraud, comparison of the functional statements for Resources Planning and its actual operations, and examination of the need for the Reporting Section. There have been no prior audits of RAMPS.

FINDINGS, CONCLUSIONS AND RECOMMENDATIONS

RAMPS is essentially a soundly designed system; however, improvement is needed to better meet users' data processing and management information needs. Particularly, the accuracy and timeliness of data inputs must be improved. Personnel interviewed during the audit reported the Staffing Pattern to be an indispensable management tool, but it was untimely in that changes were frequently not reflected for two to three months and the accuracy of some of the data elements was unreliable. Also, the Executive Management Staffs expressed a need to receive the report sooner. Personnel from the two M/PM operations divisions reported that system downtime and the failure to successfully interface with the New American Payroll System (NAPS) were the two main problems with RAMPS. The coders found system downtime also to be a problem as well as the reliability of the data reported by RAMPS. These problems can be attributed to three different sources: (1) the accuracy of data entry must be ensured at the point of origin; (2) M/SER/DM testing and documentation of all program changes requires improvement; and (3) management controls within Resources Planning should be strengthened.

We conducted a number of tests to determine whether unauthorized or improper payments were being made or data improperly manipulated. While we did not find any improper payments, we believe the security of RAMPS should be strengthened to assure that the input is authorized and that signatures on input documents are periodically verified. Our review of documents produced by the Reporting Section also showed that the manual reports currently prepared in the Section could be automated and thus eliminate the need for three of the four positions now employed.

Several RAMPS Reports Were Not Useful to Recipients

As part of another audit of computer produced reports, questionnaires concerning 46 of the 93 reports routinely generated by RAMPS were sent to all AID/W recipients to determine user satisfaction. Results of the questionnaires analyzed during this survey showed 26 of the 46 reports should be revised or eliminated. Survey results provided information for evaluating the following categories: report accuracy, availability, usefulness, frequency of receipt and use, necessity, and improvements needed. Our conclusions were based on the data provided by report users in response to the survey and discussions with some users.

The Staffing Pattern, used Agencywide both in AID/W and in overseas missions, was one of the reports identified as a

problem because it was not available on a timely basis and not fully useful. Some users we interviewed found the report untimely in that personnel changes are sometimes not shown until two to three months after the changes occurred. Report distribution contributed to the delay problem in that two or three weeks may elapse from the end of the reporting period before the report is received by AID/W management offices and even more time overseas. Also, the accuracy of certain data elements such as departure dates and organizational staffing ceilings was questionable. It was suggested that the untimeliness in reflecting changes may be caused by personnel specialists not actively following up on arrival and departure notices. M/PM recently sent a cable to all Missions reminding them of their responsibilities in this regard and will follow up monthly if they are not received. They have also taken steps to improve the timeliness of production and distribution of the Staffing Pattern.

A number of reports should be eliminated because users found they were not useful. Our survey results were discussed with responsible M/PM officials and corrective action has been initiated. Users of all RAMPS reports have been asked to express their report needs and suggest changes that would make the reports more useful. PM has also eliminated 8 reports and reduced distribution of other reports by about 35%.

M/PM Controls Needed to Ensure Data Accuracy

M/PM employees who originate data input into RAMPS are not held accountable for ensuring the accuracy of the data. Supervisors of coders neither ensure that necessary data is input nor review input actions for accuracy or propriety. Also, responsible officials have not ensured timely correction of data errors or transmittal of Employee Data Records to employees as required by Agency policy. It is important that RAMPS data be accurate to assure that the reports prepared from that data are complete and accurate and salary and other payments are correct.

Our audit survey identified accuracy as a problem hampering RAMPS' performance. Results of the report survey showed only 10 of the reports were considered very accurate, 32 were fairly accurate and 2 were not evaluated for accuracy. Additionally, the Executive Management Staffs and the personnel coders interviewed found recorded data unreliable. Ten of the 68 coders were randomly selected for interview to evaluate input and supervisory review procedures. The interviews showed there is no assurance all required data is input into RAMPS. Eight employees maintained logs of data and date submitted for input

by employee's name; however, two of the eight either did not annotate or did not actively follow up on data requiring resubmission to correct transaction errors. The remaining two employees did not keep daily logs for data submitted or data requiring resubmission.

Coders originate all employee data; therefore, verification that data submitted is actually input must be performed at this point of origin. Although two of the ten employees were personnel specialists, supervisors at the GS 12 or 13 level, the remaining eight were either in a trainee position or were personnel assistants at the GS-5 or 6 level. None of the supervisors of the eight lower graded employees routinely verified that necessary data was input. Supervisors should ensure controls are adequate to prevent the loss of data submitted for input. A suggested method is to require all coders to maintain logs according to date of input, resubmission and acceptance and for supervisors to periodically verify the correct use of the logs.

Although coders stated that RAMPS data was unreliable, they are responsible for the coding and verification of data. We believe it imperative that specialists/supervisors assume the responsibility for ensuring the accuracy of submitted data by reviewing and authorizing input documents. M/PM should provide training to those supervisors who lack knowledge about RAMPS to enable them to perform this authorizing function.

In response to the draft report, two M/PM operating divisions agreed that supervisors should review and authorize input documents, but M/PM/OS responded that full compliance would "inordinately slow down the process and would be counterproductive." M/PM/OS generates most of RAMPS' data because of the greater number of personnel actions required for Foreign Service employees. In our opinion, the very nature of their work requires extra scrutiny to prevent inaccuracies and preclude the need for additional corrections.

Failure to correct error listings also contributed to the accuracy problem. Monthly error listings, showing erroneous or missing employee data are distributed to the appropriate personnel divisions for correction. An analysis made by PIC of recurring errors for December 1980 showed 287 had remained uncorrected for two and three subsequent months. In January 1981, 271 of the 287 errors were again repeated. Division chiefs have not given the error listings a high priority and have not ensured that specialists and their subordinates make timely corrections. Top personnel management recently

discussed the need to correct the error listings in staff meetings and report distribution was increased to include top management of M/PM. PIC will reinitiate a review of recurring errors for the second quarter of FY 82. These quarterly analyses should provide a control mechanism to assure that errors are corrected.

M/PM has not sent employees their Employee Data Records since 1978 although Agency policy requires that employees receive a copy of their respective Employee Data Record every two years. Employee Data Records show all the personnel data maintained by the RAMPS system. The accuracy of the data is pertinent in that decisions affecting employees' careers can be based on the data recorded. The intent of the Agency policy is to inform employees about their automated records so that M/PM can be notified if corrections are needed. M/PM should send these records to all employees as soon as possible for review and should adhere to the two-year requirement in the future.

It is important that data maintained in RAMPS be accurate and complete so that reports prepared from that data for Agency management uses and external distribution are accurate.

Recommendation No. 1

M/PM should ensure that supervisors responsible for data input (a) review all documents submitted for input; and (b) ensure that coders maintain control logs.

Recommendation No. 2

M/PM should ensure timely correction of error listings.

Recommendation No. 3

M/PM should send employees copies of their Employee Data Records as soon as possible and adhere to the two-year requirement in the future.

M/SER/DM Controls Strengthened to Ensure Accuracy of Data

The accuracy of RAMPS data and the successful interface with NAPS will be improved if M/SER/DM properly tests and fully documents program changes. RAMPS is a complex system that not

only interfaces with the payroll system (NAPS) but also is composed of over 200 programs needed to generate the reports and to update employee records. A change in one program may affect the operation of an interrelated program or programs.

According to interviewed officials in M/SER/DM, program changes were routinely made using "live" or actual data versus using test data, therefore, possibly affecting the accuracy of data in the system. The complexity of RAMPS, the potential of human error, and the necessity of good data systems control dictate that all program changes be tested using test data. M/SER/DM has initiated corrective action by establishing a parallel test system which will duplicate all RAMPS programs and data base files. NAPS should be included in the tests for changes affecting elements which the two systems share. M/EM/ESD must participate in the testing to validate changes made.

Program changes were also not documented; therefore, audit trails were not available to provide programmers with a means to trace problems back to the source. DM has also taken steps to ensure that, as program changes are accepted for actual system operations, the program will be annotated to reflect changes made, the programmer making the change, and the change date.

At the time of our survey, we noted two other areas needing improvement in M/SER/DM: coordination with Resources Planning and strengthening of library controls for program changes. In the past, M/SER/DM failed to notify Resources Planning when requested changes were being installed; therefore, affecting workload processing. M/SER/DM has improved significantly in notifying Resources Planning of completion of program changes since the draft audit report was distributed; consequently, no recommendation will be made in this area. However, we were informed that there was frequent loss of program changes because of weak library controls in M/SER/DM. RAMPS programs reside in four separate libraries. The fix and test libraries provide temporary program storage. The hold library is used to refine program changes before a program is transferred into the production library. Periodically, program changes remaining in the hold library have been erased if a request for transfer has not been initiated. Program changes have been lost in this manner and Resources Planning has had to request some program changes more than once.

It is important that program changes be tested and documented to assure that they are changing only the data intended in the proper manner, otherwise it is possible that unwanted changes

could be made which would affect the accuracy of data within the system and reports or other documents prepared by RAMPS.

Recommendation No. 4

M/SER/DM should (a) test all program changes using test data before installing in the normal operations of RAMPS, (b) document all program changes, and (c) strengthen library control to prevent loss of program changes.

Management Controls in Resources Planning Need Improvement

Resources Planning should establish management controls in several operational areas to better meet user needs. Production records measuring machine downtime should be maintained. Formal procedures should be established to respond to coding problems and requests for special reports. The "Comparison Report between NAPS and RAMPS Master Files" needs to be routinely corrected. Cross training other PIC employees in input duties and documenting input process steps is also needed.

We could not verify whether systems downtime was a chronic problem because Resources Planning has only recently kept production records. The records for December 1981, January, and February 1982 showed RAMPS was used to input data 40 out of 61 possible workdays. The 21 day difference was considered downtime from the viewpoint of M/PM. Resources Planning used RAMPS exclusively for major projects 10 of the 21 days. The remaining 11 days, or 18 percent of the possible workdays, apparently represented actual equipment or program malfunction. Resources Planning should continue maintaining production records to measure RAMPS' success rate, i.e., operative versus inoperative time and to identify downtime causes. Resources Planning should also monitor the records and correct problems originating within their jurisdiction. M/SER/DM should be contacted to rectify difficulties originating there.

At the time of our survey no formal procedure was established in Resources Planning to respond to input problems encountered by coders. Problems brought to PIC may or may not be resolved depending on the complexity of the problem and the knowledge of the PIC employee. Problems were not documented; consequently, Resources Planning could not effectively review problems encountered for potential indication of more significant system malfunction. Corrective action has been taken in that Resources Planning has drafted a formal procedure requiring all

problems to be documented, and assigning one employee on a rotational basis to respond to all problems.

In another area, no formal procedure existed to respond to requests for special reports. The audit survey revealed two instances where employees from outside M/PM wasted excessive time contacting various PIC employees before receiving satisfactory results to their special requests. Resources Planning should have an established procedure to be followed by all branch personnel when special requests are received. We were advised that such procedures are being developed.

Periodic step increases for employees are not controlled to assure that they are processed in a timely manner. Each month PIC generates listings of employees eligible for periodic step increases the following month. The listings are distributed to operating personnel for required approval and returned to PIC for input. Neither PIC nor M/PM/OS and M/PM/EPM ensure the lists are returned for timely input; consequently, employees may not receive authorized step increases when they are due. PIC generates, distributes, and inputs these listings; therefore, PIC should control their timely return. We were informed that controls will be established to accomplish this.

Review of the "Comparison Report between NAPS and RAMPS Master Files" require better coordination to assure that errors are corrected. This report lists discrepancies in data recorded in both systems and is issued at the end of each payroll period to PIC and M/FM/ESD for review and correction. Corrections are made after verifying information to official personnel files and employee payroll records. Resolution of discrepancies is dependent upon the successful coordination between PIC, M/FM/ESD and M/SER/DM when discrepancies are the result of program errors or hardware malfunctions. PIC coordinates resolution efforts between the three organizations. Although PIC has this responsibility, the report did not receive high job priority and not all of the data elements were corrected. PIC and M/FM/ESD did review the report to correct data affecting pay status; but, contact between the two organizations was sporadic at best and PIC admittedly did not give the report a high job priority. Personnel operations officials considered successful interfacing between RAMPS and NAPS a significant problem. Therefore, a thorough review of the "Comparison Report" should be made routinely to correct errors and uncover potential programming problems. Although some corrective action has been taken, Resources Planning must still give higher priority to the comparison report as well as to regularly coordinate with M/FM/ESD and M/SER/DM to correct the report when necessary.

Resources Planning should also ensure that other PIC employees are cross trained in input duties in order to better ensure smooth day-to-day operations. A procedures manual describing the step-by-step input functions is needed to assure continuity of operations. No other PIC employees besides the one input clerk are aware of the process steps needed to input data crucial to the effective operations of RAMPS. These process steps are not documented so that another person could perform the input duties if required.

It is important that RAMPS data be accurate and timely and that management officials needing reports receive them in a timely manner. In order to assure this objective, several changes in internal Resources Planning Branch operations are required. Error listings must also be reconciled to assure that the data maintained by RAMPS is accurate.

Recommendation No. 5

M/PM should require Resources Planning personnel to:

- a. Maintain production records to compare RAMPS' successful run rate with acceptable criteria;
- b. Establish and follow formal procedures to respond to problems encountered by coders and for handling special report requests;
- c. Improve procedures for control of periodic step increases to ensure timely input; and
- d. Provide cross training for other PIC employees in input duties and establish a procedures manual describing the step-by-step input functions.

Recommendation No. 6

M/PM, RP and M/EM, ESD should establish procedures to ensure review and correction of the "Comparison Report Between NAPS and RAMPS Master File" biweekly and coordinate with M/SER/DM on required action as needed.

Coders' Signatures not Verified

We found no evidence of fraudulent manipulation of RAMPS data by employees having access to programs and master file data.

However, no security precautions exist to prevent fraudulent action at the point of data origin. As data entered into RAMPS can affect the pay and benefits of employees, it is important that only authorized entries be made. To prevent the possibility of unauthorized individuals manipulating data, verification of signatures of coders and authorizers is needed before data is accepted for input. Data is accepted for input although coders routinely fail to sign their names. The input clerk will accept data for input as long as an operating origin code number is written on the form. The input clerk has a list of authorized coders and their assigned origin code numbers, but the list is not accurate. Also, no signature samples have been obtained in order to make a verification check. These signature samples should be obtained so that Resources Planning can ensure only data forms completed by authorized coders and authorizers are accepted for input.

Recommendation No. 7

M/PM should ensure that necessary signature samples are obtained and that signatures are verified at least on a sampling basis before accepting data for input.

Functional Statement for Resources Planning is not Accurate

We reviewed the functional statement of Resources Planning in the AID Organizational Handbook to obtain an overview of the functions the branch is expected to perform in relation to other M/PM organizational elements. Handbook 17 describes the Resources Planning Branch's main job functions as providing analyses of staffing and training needs. Several Resources Planning employees who would be responsible for this function stated the Branch does not provide analyses, but it does provide data in various report formats from which analyses of staffing needs can be made. The chief of the division stated the actual goal of Resources Planning is to provide accurate and timely information in a format which can be used by management as a planning tool. Functional statements should describe the actual responsibilities in order to provide management with criteria to evaluate an organizational element. The functional statements for Resources Planning Branch should either be revised or the functions should be changed to fulfill the intent of the statements.

The Reporting Section of Resources Planning Branch manually produces several reports that could easily be automated and generated by RAMPS. A personnel management team identified the Reporting Section for abolishment in Fiscal Year 1981 if M/PM

received a reduced ceiling level. Although the section was identified for abolishment, no action has been taken to accomplish this. Our review of the position functions showed that many staff days are spent manually producing reports that could be automated. Automation would save approximately \$74,000 in annual salary costs. M/PM agreed that the efficiency of this Section could be improved by automation and has agreed to eliminate three of the four positions, and assign other duties, including accomplishing the automation of the reports in question, to the remaining staff member.

LIST OF RECOMMENDATIONS

Recommendation No. 1

M/PM should assure that supervisors responsible for data input (a) review all documents submitted for input; and (b) ensure that coders maintain control logs.

Recommendation No.2

M/PM should ensure timely correction of error listings.

Recommendation No.3

M/PM should send employees copies of their Employee Data Records as soon as possible and adhere to the two-year requirement in the future.

Recommendation No. 4

M/SER/DM should (a) test all program changes using test data before installing in the normal operations of RAMPS, (b) document all program changes, and (c) strengthen library control to prevent loss of program changes.

Recommendation No. 5

M/PM should assure that Resources Planning:

- a. Maintains production records to compare RAMPS' successful run rate with acceptable criteria;
- b. Establishes and follows formal procedures to respond to problems encountered by coders and special requests;
- c. Controls periodic step increases for timely input; and
- d. Provides cross training to other PIC employees in input duties and establishes a procedures manual describing the step-by-step input functions.

Recommendation No. 6

M/PM/RP and M/FM/ESD should review and correct the entire "Comparison Report Between NAPS and RAMPS Master File" biweekly and coordinate with M/SER/DM for required action when needed.

Recommendation No. 7

M/PM should ensure that necessary signature samples are obtained and that signatures are verified at least on a sampling basis before accepting data for input.

LIST OF REPORT RECIPIENTS

	<u>No. of Copies</u>
Deputy Administrator, DA/AID	1
Assistant to the Administrator for Management, M	1
Deputy Assistant Administrator for Management, M/SER	1
Director, M/PM	5
Director, M/SER/DM	5
Controller, M/FM	5
Audit Liaison Officer, M/PM	1
Audit Liaison Officer, M/SER	1
Audit Liaison Officer, M/FM	1
Office of Legislative Affairs, LEG	1
General Counsel, GC	1
Director, S&T/DIU	4
Inspector General, IG	1
RIG/A/Cairo	1
RIG/A/Karachi	1
RIG/A/Latin America	1
RIG/A/Manila	1
RIG/A/Nairobi	1
IG/FMS	12
IG/PPP	1
IG/II	1