



UNITED STATES GENERAL ACCOUNTING OFFICE  
WASHINGTON, D.C. 20548

111693

INTERNATIONAL DIVISION

*Accounting systems*  
*Erroneous payments*  
FEB 29 1980  
*Funds*  
*Check disbursement or*  
*Control*  
*Data processing or*  
*Systems evaluation*

The Honorable Thomas M. Tracy  
Assistant Secretary for Administration  
Department of State

*DLG 09011*

Dear Mr. Tracy:

As part of our review of the Department of State's internal controls over cash receipts and disbursements by overseas posts, we analyzed the processing of cash receipts and disbursements at the Foreign Affairs Data Processing Center in Bangkok, Thailand, during 1979. This was done to determine what controls existed and whether they were effective for manual and automated functions.

We found that internal controls at the Center could be improved and brought our findings to the attention of the Center's Director. We have more recently discussed these matters with the Deputy Assistant Secretary for Information Systems and again with Center officials in Bangkok. The officials generally agreed with our findings and certain corrective actions have been taken. The areas of our concern, which are discussed in more detail in the enclosure, include:

- Identification of abnormally large dollar and local currency transactions for management review.
- Comparison of reports which contain like data extracted from different source files to detect errors in processing.
- Improvement of document control to prevent the loss or duplicate processing of the same transaction.
- Improvement of internal control over cashier activities.

*Fin records*  
*Computerized info systems*

We also noted that, although the Center is making progress in obtaining needed incountry backup computer support, it is not storing key computer system supporting documentation, such as logic flow charts and system operations manuals, in a secure offsite location.

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*Group III Report*

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We would appreciate receiving your views on these matters, including advice on any additional actions taken or contemplated as a result of our study.

Our review did not involve the Paris and Mexico City Regional Finance Centers but, since they use the same basic automated system, we believe that our observations at the Bangkok Center would be of interest to their Directors.

Sincerely yours,



Frank Conahan  
Associate Director

Enclosure

cc: Director, Regional Finance  
Center, Bangkok  
Inspector General,  
Department of State

GAO REVIEW OF INTERNAL CONTROLS  
AT THE FOREIGN AFFAIRS DATA  
PROCESSING CENTER IN BANGKOK

266-4013

BACKGROUND

The Foreign Affairs Data Processing Center in Bangkok is an element of the Department of State's Office of Operations. The Center, established in April 1973 with computer equipment from withdrawing U.S. military forces, performs automated payrolling, accounting, and disbursing and general recordkeeping functions for the Department of State and many other U.S. Government agencies located in South and East Asia and the Pacific.

The U.S. Disbursing Officer and his alternate are responsible for issuing U.S. dollar and local currency checks and maintaining control over the equivalent of \$1 billion in 68 different local currency bank accounts. In fiscal year 1978, the Center disbursed about \$172 million and was responsible for maintaining records for and control over more than \$63 million from cashiers' receipts. As of March 31, 1979, the Disbursing Officer was also responsible for about 100 cashiers who handled over \$2.4 million in cash advances.

The Center serves customers in the following 24 locations:

Australia	Pakistan
Bangladesh	Papua, New Guinea
Burma	Peoples' Republic of China
Fiji	Philippines
Hong Kong	Singapore
India	Solomon Islands
Indonesia	South Korea
Japan	Sri Lanka
Laos	Taiwan
Malaysia	Thailand
Nepal	Tonga
New Zealand	Western Samoa

The Center's basic automated financial system was adopted from the system developed by the Regional Finance Center in Paris and was modified to meet the Center's local operating requirements. For instance, the Paris-developed checkwriting system was changed because the Center used only one local currency check stock for all its checking accounts rather than a different stock for each account. In addition, the computer programs were written for IBM equipment and the Center had to convert them to run on a Control Data Corporation computer.

SCOPE OF STUDY

We reviewed the (1) functional responsibilities of Center personnel, (2) logical data flow and sequence of operations performed in processing accounting and disbursing transactions, (3) controls established over data submitted for processing, (4) method for detecting and correcting errors, and (5) the system for management oversight of cashier operations. We obtained and analyzed computer system flow charts, organization charts, system operating procedures, and tracked selected transactions through the error detection process. We also analyzed selected accounting records and control functions.

Our work did not include an analysis of payroll operations.

NEED FOR BETTER COMPUTER-  
PROGRAMED EDIT CONTROLS

Whenever practicable, well designed "controls" should be written into computer programs to insure that the data processed is accurate and complete. The Center needs to make better use of such edit controls in processing disbursement and accounting transactions.

Detection of unusually large  
accounting transactions

The Center's accounting and disbursing system did not have a limit edit check programed into the computer to identify or reject unusually large accounting or disbursing transactions. When possible, the computer programs should contain edit checks to detect unusually large transactions so that questionable transactions will be rejected. Without such an edit check, the Center's system is capable of issuing U.S. Treasury checks in excess of \$9 million and of processing large accounting transactions without management's awareness.

For example, In January 1979 a post cashier submitted for processing through the cashier's imprest fund account a transaction for about \$1.2 million. When this large transaction was processed, it reduced the post cashier's accountability for imprest fund advances to a negative balance of about \$1.1 million. This large negative balance reduced the total cashier advances to about a minus \$721,000, distorting the outstanding dollar advances reported in the Disbursing Officer's monthly statement of accountability.

This condition was detected the next month and corrected. However, in our view a limit edit check would have detected this condition sooner and allowed its correction before the monthly report was issued.

#### Comments by Center officials

Center officials agreed that a limit edit check was needed and advised us that an edit check for transactions of \$50,000 or more (or its local currency equivalent) would be implemented by February 1980. This change is designed to monitor about 3 to 5 percent of the large transactions and will result in a new Center management report. The report will enable Center personnel to review the large transactions and to identify those which appear questionable. Center officials noted that the edit check will not stop a large check from being issued but will provide time to void a check before it leaves the Center.

#### Our evaluation of comments

The Center's proposal to introduce the automated limit edit check so that management review action takes place before payment checks are issued is a step in the right direction. However, this is still an unsatisfactory arrangement because, to make the edit check more effective, it should be introduced at an earlier point in the processing procedure so that management can review the large dollar transactions and stop further processing of questionable transactions. We believe that action should be taken to introduce the limit edit check at an earlier point in the processing.

#### Duplicate payments are possible

Because the Center's automated editing system and manual review procedures are not fully effective, the risk is increased that duplicate checks could be issued for the same transaction.

Duplicate transactions are difficult to detect because the numerical series of transmittal numbers assigned to each transaction by submitting posts are started over again every month; the computer editing system can only detect duplicate numbers for a 2-week period, not an entire month. Detecting duplicate numbers during the editing process is important because it is at this point that questionable transactions can be investigated and pulled out of the system before they are processed.

The Center has compensated for this editing deficiency by manually reviewing transmittal numbers processed; however, this review is not fully effective or efficient because it occurs after all transactions have been processed through the accounting system and the checks issued. We were told that this review often takes place the day after transactions are processed. This delay increases the risk that duplicate accounting transactions may clear the system, but more importantly it increases the risk that duplicate checks may be issued for the same transaction.

Just such a case happened during December 1978 when two separate checks for over \$950,000 were issued for the same payment several days apart using different documents that had the same transmittal number. At the time of our survey it was impossible to determine why the duplicate transmittal was not detected and what breakdown in controls permitted the issuance of duplicate checks. The error was corrected when the requesting post received the second check and returned it to the Center.

#### Comments by Center officials

Center officials stated that it was difficult to develop a system to detect duplicate transactions but that controls have been tightened as a result of our study. A perforating cancellation machine has been ordered which will provide positive identification of processed documents. In addition, each document resubmitted at the Center level will be accompanied by a cover sheet signed by the Disbursing Officer or his alternate. With regard to duplicate entries from embassies, the Center has been unable to improve on the transmittal control edit which detects duplicate entries from the previous 2 to 3 weeks.

#### Our evaluation of comments

We believe that the corrective actions taken will help to detect duplicate transactions; however, this will continue to be a problem because the computer has insufficient capability to perform an adequate edit. A Center official told us that the cost of expanding the computer's capability to a point where an effective edit could be performed could not be justified.

DETECTING COMPUTER-INDUCED ERRORS

The Center does not perform a validation test on reports which contain the same data but which are prepared from separate computer files. As a result, Center officials were unaware that the automated system produced erroneous balances during April 1978 in certain post cashier accounts. Some posts detected the error and notified the Center, but all the erroneous balances were not corrected by the Center until January 1979, 8 months after the errors were made.

A validation test is an important editing and error detection procedure when two reports containing the same data are prepared from separate computer files. Discrepancies between the two reports would indicate that an error exists and that corrective action should be started. For instance, the month end balances shown on the Cashier's Statement of Accountability (FADPC 365) and the balances of advances to class B cashiers as reported on the Statement of Balances Due the United States (FS 467) should agree. Since these reports are produced from two separate computer files, any discrepancies between the two balances would indicate that an error exists and that corrective action should be initiated.

Comments by Center officials

Center officials believe that, due to the nature of the computer program and equipment, an automated validation list of the files would be difficult to implement. However, a daily manual validation of the files and cashier accounts has been started. According to the Disbursing Officer, employees are now responsible for comparing files, cable traffic check requests, and the opening and closing balances of the cashiers' accounts. We were told these tests have proven useful and have resulted in at least one error being detected and corrected.

IMPROVEMENTS NEEDED OVER  
CONTROL OF DOCUMENTS

The Center needs to improve its document controls to insure that all incoming transaction documents are accounted for and to prevent the processing of the same transaction more than once without proper authorization.

Wherever practical, document control should be vested in one group of people who would be responsible for recording input data in a control log as it is received, for recording

control totals and for ensuring that each batch of documents received is authorized before turning the data over for further processing. Also, each source document should be cancelled after processing to prevent its reuse.

#### Document receipt control

The Center's document control receipt system is not very effective because it is not always possible for all transaction documents to be identified by the receiving clerk.

Documents arrive at the Center via APO mail, international mail, and official pouch. However, the bulk of source documents are sent by official pouch. The procedure established by the Center is to have the mailroom clerk log in all arriving pouches and transmittal documents. However, the mailroom clerk cannot identify all arriving transaction documents, since they are sometimes included in mail addressed to the Disbursing Officer's personal attention, which is not opened in the mailroom. In these cases, the risk is increased that a transaction could be lost and not processed.

In addition, other important aspects of the control function are not centralized in one group that would establish control prior to processing. For instance, the mailroom clerk does not record control totals in a log from transmittal documents. This function is performed during the keypunching operation. However, these totals should be recorded and verified as soon as the documents are received; otherwise it is difficult to tell whether a document was actually received by the Center. In addition, documents are not checked for proper authorization prior to processing. The Center does check for authorizing signatures on vouchers, etc., but this is done after processing the transaction.

In our view, reviewing documents for proper authorization after they have been processed does not prevent the risk of unauthorized transactions being processed or of losing control over checks written from unauthorized transactions.

#### Document cancellation

Proper document control includes not only procedures to ensure that all documents received are processed but also procedures to ensure that source documents are processed only once. Documents such as vouchers for payment and bank deposit slips, however, are not canceled after processing which increases the risk that they could be used again.



Procedures require that keypunch operators mark each document following keypunching, but this signifies only that the document was entered into the system. There is no cancellation of the document once it has been reviewed by the accounting branch. Such cancellation is needed to indicate that the transaction has been completed and a check issued in payment of a voucher.

#### Document resubmission

The Center should exercise more control over documents which are resubmitted for processing. Adequate internal control procedures should prevent the resubmission of completed transactions except for valid and documented reasons. To insure that resubmissions are valid, an authorizing control record should accompany each such transaction and be reviewed by the accounting branch supervisor. Because it did not have sound document control procedures, the Center in one case--processed a cashier deposit twice, thus overstating the check-book balances by about \$39,000. In this instance, a deposit transaction was processed on May 16, 1978. Then on December 15, 1978, the same transaction, using the same previously submitted documents, was processed again. Although the December transaction was initiated by the accounting branch, a Center official could offer no reason why that particular transaction was processed again. However, the post detected the duplicate processing and notified the Center.

#### Agency comments

Subsequent to our field review, the Deputy Assistant Secretary for Information Systems told us that the Center had improved document controls by (1) setting up a single flow document point in the mailroom to control all incoming documentation, (2) ordering a perforating machine to cancel processed documents, and (3) checking signatures on vouchers before releasing checks.

Center officials also advised that they have required supervisory signature approval of all reworked data and have stopped resubmission of original documents in such cases.

#### MANAGEMENT OVERSIGHT OF CASHIER ACTIVITIES

Cashiers operate with advances obtained from the U.S. Disbursing Officer at the Center and are accountable to the Disbursing Officer for the amount of their advances and for all collections which they receive.

Cashier collections are either deposited in local bank accounts to the credit of the U.S. Treasury or forwarded to the Center; they are not used by the cashiers to replenish their advances. At the end of March 1979, the Center's records showed outstanding advances to about 100 cashiers of about \$2.4 million.

The Center's monitoring of cashier activities is weak because

- posts do not perform monthly verifications of cashier accounts and
- the Center does not reconcile its bank accounts in a timely manner.

These weaknesses in the Center's monitoring of cashier activities could result in failure to detect irregularities in cashier operations.

#### Monthly reconciliations of cashier advances

Since the disbursing function has been centralized at the Center, the Disbursing Officer has to rely on the American supervisors at the posts to oversee cashier operations. Accordingly, the Center requires posts to make monthly unannounced cash counts and reconciliations of cashier advances and send the results to the Center. We were told, however, that only a few posts make monthly reconciliations.

For instance, during December 1977 through May 1979, only four unannounced cash counts were made for the cashier at Chittagong, Bangladesh, and eight for the Embassy cashier.

We found also that at least one cashier was submitting incomplete requests for replenishment of the advance. In this case, the Center made six replenishments totaling about \$7,500. In another case, a cashier submitted requests for replenishments that were not signed by an authorizing official. The Center nevertheless made replenishments based on these incomplete documents.

Subsequent to our review, Center officials advised us that more posts are performing timely verifications of cashiers' advances and that the Center has assigned an employee to follow up on delinquent posts.

Untimely bank reconciliations

Timely reconciliation of checking accounts is an important independent control over disbursement and account processing and provides for the early detection of errors in checkbook balances or bank statements. Through bank statements and reconciliations, Center personnel are able to detect irregularities in the cashier statements of accountability.

The Center had experienced extended delays in reconciling its bank statements. Although it reduced the time lag from around 220 days to about 60 days, the extended delays and rapid catchup resulted in erroneous entries on the cashier accountability statement for at least one cashier. In this instance, the true accountability for the State cashier in Dacca was not known for about 8 months because the Center was unable to determine until January 1979 that a deposit made in May 1978 contained several items that were not accepted by a local Bangladesh bank. The cashier's accountability was therefore understated by the amount of the deposits not accepted by the bank.

Center officials were not able to explain all the reasons for the erroneous entries in the Dacca cashier account, but agreed that the extensive backlog in reconciling the bank accounts had delayed correcting the cashier's account. They indicated that the bank reconciliation process had improved substantially and that efforts were underway to prevent additional delays in the future. However, they stated that the current 60-day time lag would be difficult to shorten since some banks are not always prompt in providing statements.

Center officials advised us after our review was completed that the assignment of a new employee to oversee cashier activities has made bank reconciliations more timely. However, reconciliation problems are still being experienced in certain cases. Most of the backlog has been reduced to about 60 days, but the Center is still about 260 days behind for India and 120 days for Pakistan. The uncompleted reconciliations affect the accountability control for seven cashiers in India and six in Pakistan.

CONTINGENCY PLANNING NEEDS  
CONTINUED ATTENTION

Presently, there is virtually no incountry backup computer support available to the Center, so it would be unable to continue its disbursement, accounting, and payroll functions

should its computer be out of commission for any extended period. To overcome this problem, the Center has developed a plan to (1) obtain limited incountry support for issuing payroll checks, (2) rewrite the financial system programs so that they can be processed on IBM equipment located in Bangkok, and (3) locate a compatible computer facility in the Pacific area where it could temporarily relocate during a prolonged emergency.

The Center can obtain limited in country backup computer support from the Royal Turf Club. This support is limited because the Club's computer cannot be used to process any of the Center's accounting, disbursing, or payrolling workload. What the Center could do is print payroll checks using data from the last payroll it processed. Another source of limited backup support was expected to become available with the installation of a minicomputer at the American Embassy in Bangkok. The Center planned to use this computer to run critical system elements, such as check issuance. As the minicomputer's capability is increased, it is possible that it could provide expanded backup support

In order to continue the Center's operation during a period of extended computer outage, a major project has been started to convert all the financial system programs so that they can be run on IBM equipment located in Bangkok. This project also entails creating IBM-compatible versions of the financial master files and running parallel cycles to prove out the converted system.

The Center is also exploring the feasibility of locating an identical computer installation with time available that could be used for temporary relocation purposes. One such facility has been located in Australia and the Center is now studying the feasibility of using it.

In our view these plans appear adequate and in the long run they will provide acceptable computer backup capabilities. However, until these plans are ready for implementation, the Center has only very limited backup capability.

In a matter related to contingency planning, the Center does not store key computer system supporting documentation, such as logic flow charts, system operations manuals, etc., in a secure offsite location. We believe that computer system documentation is a valuable asset and should receive the same protection from overt or accidental destruction as other key data in various master files.