

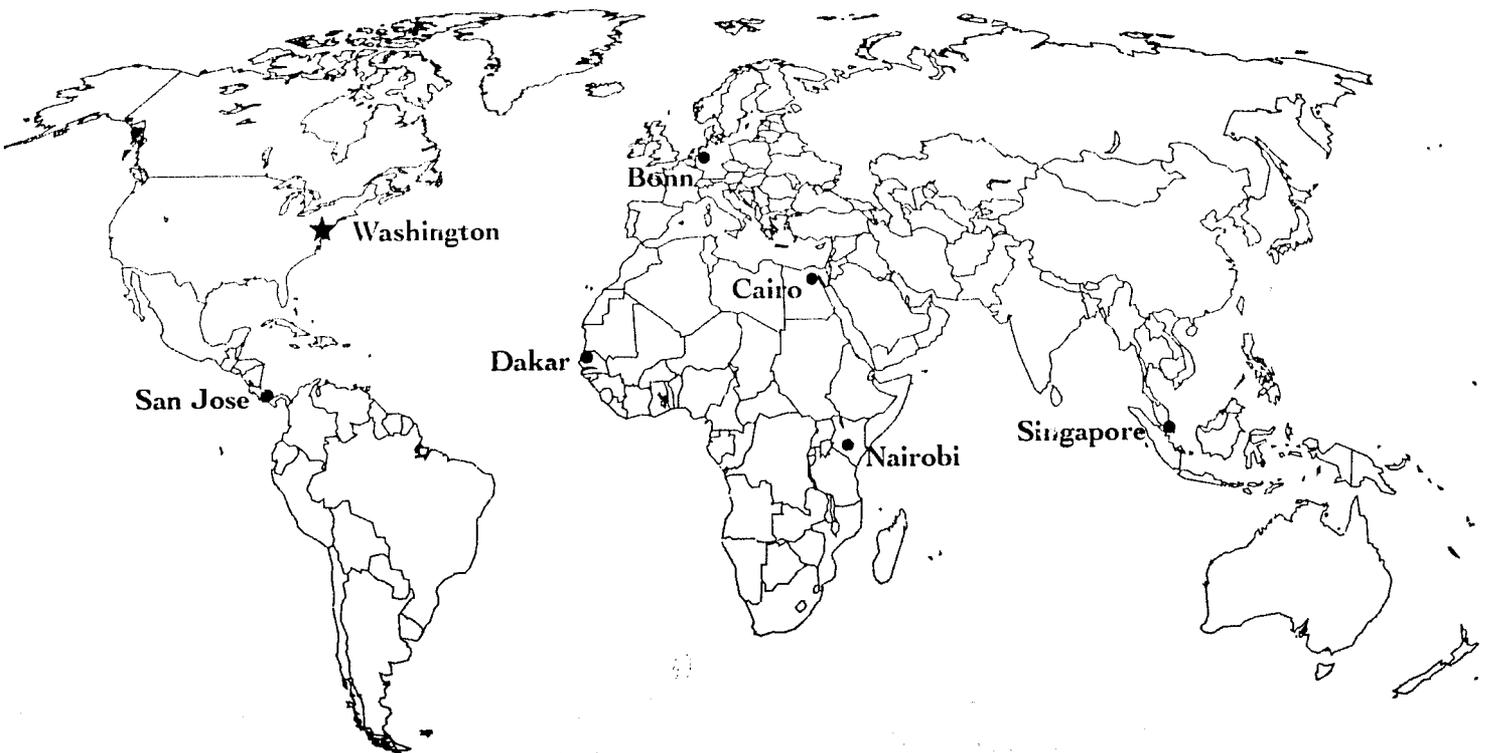
**Regional Inspector General for Audit  
Dakar**

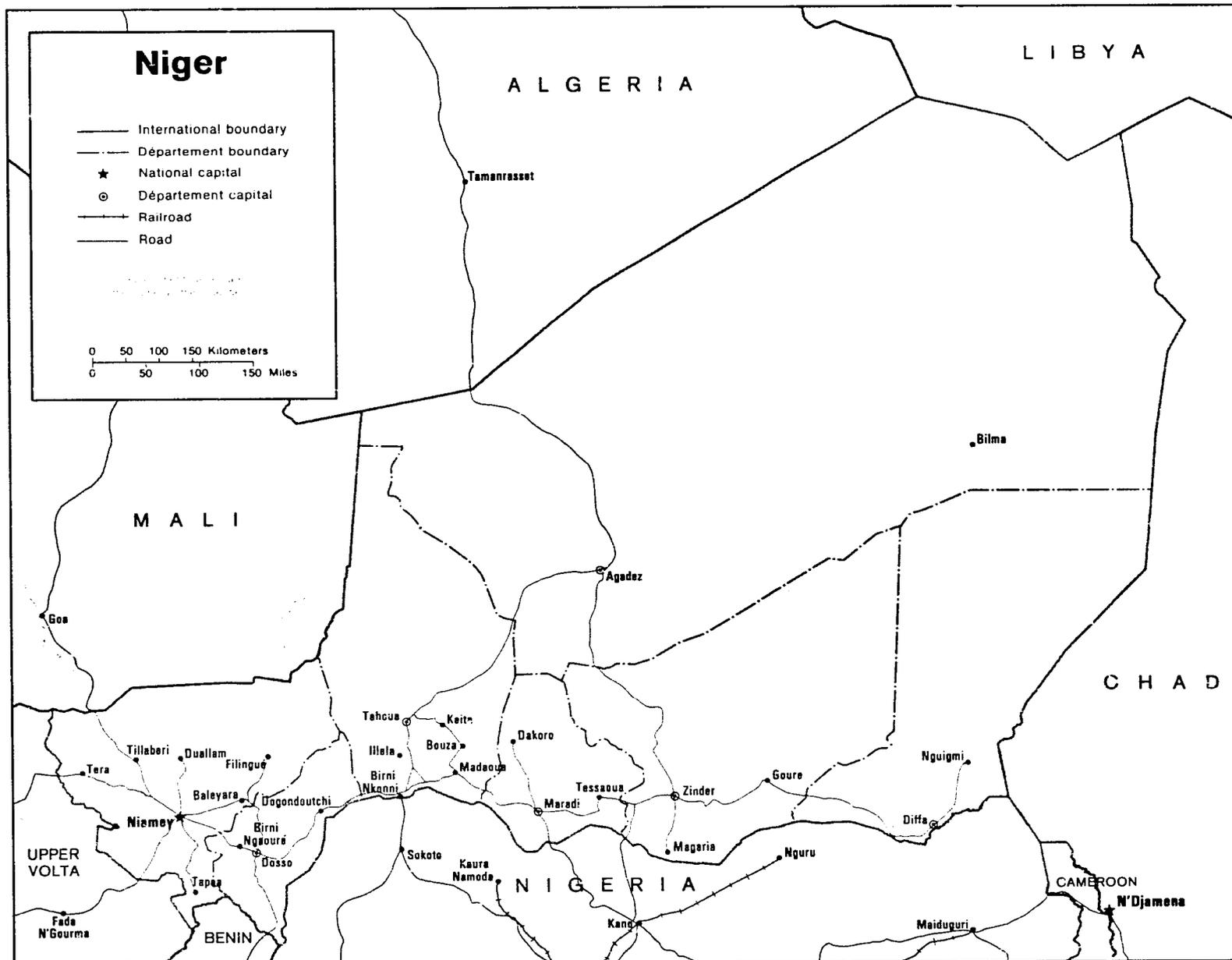
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**Audit of the Quality of MACS Data  
at USAID/Niger**

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**Audit Report No. 7-683-95-010  
September 14, 1995**





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**Audit of  
the Quality of MACS Data at  
USAID/Niger**

**Audit Report No. 7-683-95-010**

**September 14, 1995**

UNITED STATES OF AMERICA  
AGENCY FOR INTERNATIONAL DEVELOPMENT  
OFFICE OF THE REGIONAL INSPECTOR GENERAL FOR WEST AFRICA

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RIG / DAKAR  
AGENCY FOR INTERNATIONAL  
DEVELOPMENT  
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WEST AFRICA

September 14, 1995

MEMORANDUM FOR DIRECTOR USAID/Niger, James Anderson

FROM: *Thomas B. Anklewich*  
RIG/A/Dakar, Thomas B. Anklewich

SUBJECT: Audit of the Quality of MACS Data at USAID/Niger  
(Audit Report No. 7-683-95-010)

This memorandum is our report on the "Audit of the Quality of MACS Data at USAID/Niger," Report No. 7-683-95-010. We considered your comments to the draft report and have included them as Appendix II. The audit report makes four recommendations. Based upon the actions taken by USAID/Niger in the Mission comments, Recommendation Nos. 1, 2, 3 and 4 are closed upon report issuance.

I appreciate the cooperation and courtesies extended to the audit team during the audit.

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### Summary of Audit Findings

We reviewed six of the 28 MACS files and found problems requiring corrective actions in four of the six files. We found no significant deficiencies in the remaining two files. Significant error rates were found in all seven elements of the Project Information Master file and all eight elements of the Commitment Transaction file. These errors occurred because supporting documentation for four transactions in the Commitment Transaction file and six transactions in the Project Information Master file could not be located. Additional errors were found in the Project Information Master, Commitment Transaction, and Budget Allowance Transaction files which resulted from information in the file elements that had not been properly entered and (or) updated. The report makes four recommendations to address these problems.

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## **Introduction**

Realizing that USAID must operate with increasingly scarce funds, the Agency is undertaking a new and aggressive effort to change the way data and information are managed. Such an effort is critical to our future: in the modern workplace, be it business or government, a high-quality, reliable information system is no longer a luxury—it is a necessity.

To ensure that the data in the entire USAID system is of high quality—and therefore useful to managers concerned about project status and pipeline<sup>1</sup> reports—the Office of Information Resource Management (IRM) is undertaking a major initiative. They are centralizing data collection and improving the management of information by creating a data warehouse (see Appendix V), a repository for data from all Agency systems. One of the first steps in bringing data to this warehouse is the PIPE (Project Information and Pipeline Evaluation) initiative. The PIPE initiative is a joint IRM and Financial Management project that will combine MACS data from the missions and financial data from USAID/Washington, allowing all Agency managers timely and comprehensive information on USAID projects worldwide.

For this system to succeed, the MACS data from all of the missions must be of the highest quality. Therefore, in support of IRM's work, the Office of Audit is conducting a series of audits designed to evaluate the quality of data. Our audit of the MACS data at USAID/Niger is an important part of this effort.

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## **Audit Objective**

The audit was designed to answer the following question:

- Is the data in USAID/Niger's Mission Accounting and Control System (MACS) accurate?

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<sup>1</sup> Pipeline Reports are comprehensive financial reports drawn from MACS data which specify the amounts of funding provided to USAID country programs and the individual programs/projects within each country. These reports show the current amounts of funding authorized, obligated, committed, expended, and unexpended (Pipeline) for the country program and each individual program/project.

## Audit Findings

USAID/Niger's MACS data was accurate in 20 of the 37 data elements from the six files reviewed. However, the other 17 data elements contained significant errors, as noted below.

<b>RESULTS OF OUR REVIEW</b>			
<b>MACS Files</b>	<b>Data Elements Reviewed</b>	<b>Elements With Significant Errors</b>	<b>Elements With No Significant Errors *</b>
Budget Allowance Transaction (BAT)	3	1	2
Reservation/Obligation Transaction (ROT)	4	1	3
Commitment Transaction (COT)	8	8	0
Disbursement Transaction (DIT)	8	0	8
Advance Transaction (ADT)	8	0	8
Project Information Master (PIM)	7	7	0
<b>Total</b>	<b>38</b>	<b>17</b>	<b>21</b>

*(\* Error rates of less than 5% were considered accurate for reporting purposes. Error rates for each of these elements can be found in Appendix III.)*

The 17 significant errors were caused by four different problems:

1. transactions were made without supporting documentation;
2. files were not updated properly;
3. data was not entered correctly in certain data elements; and

4. documents were not maintained properly.

Since USAID managers worldwide will rely on information in the Agency's data warehouse for making decisions on where and how to allocate scarce resources, it is critical that the data coming from each mission's MACS be accurate and complete. Therefore, the efforts of USAID/Niger to ensure the integrity of data in MACS will contribute to the Agency's overall goal of providing accurate and timely information on USAID project activity on a worldwide basis.

An analysis of each problem area and recommendations to correct the problems are discussed in detail below. For the purposes of the audit, error rates exceeding five percent were considered significant. The following chart shows the total number of errors and percentage error rate for each element tested which had significant errors.

<b>SIGNIFICANT ERRORS</b>			
<b>DATA ELEMENT FILE NAME</b>	<b>NUMBER SAMPLED</b>	<b>ERRORS</b>	<b>ERROR RATE</b>
Project Number (PIM)	50	9	18.0%
Project Agreement Date (PIM)	50	27	54.0%
Life of Project (PIM)	50	23	46.0%
Terminal Disbursement Date (PIM)	50	18	36.0%
Project Assistance Completion Date (PACD) (PIM)	50	16	32.0%
Project Amount (PIM)	50	34	68.0%
Host Country Contributions (PIM)	50	6	12.0%
Commitment Doc. Number (COT)	79	6	7.59%
Earmark Control Number (COT)	79	6	7.59%
Call Forward Date (COT)	79	4	5.06%
Project Number (COT)	79	5	6.33%

<b>SIGNIFICANT ERRORS (cont.)</b>			
<b>DATA ELEMENT FILE NAME</b>	<b>NUMBER SAMPLED</b>	<b>ERRORS</b>	<b>ERROR RATE</b>
Commitment Amount/Mission (COT)	79	11	13.9%
Commitment Amount/ AID/W (COT)	79	5	6.33%
Commitment End Date (COT)	79	10	12.66%
Budget Plan Code (COT)	79	5	6.33%
Transaction Amount (ROT)	80	7	8.75%
Budget Plan Code (BAT)	61	5	8.20%

### **1. Transactions Made Without Supporting Documentation**

Our audit found that transactions were made without supporting documentation for upward and downward adjustments in both the Reservation/Obligation Transaction (ROT) and Commitment Transaction (COT) files. Specifically, no supporting documents were prepared for five entries of the Obligation Transaction Amount in the Reservation/Obligation Transaction file. Also, in the Commitment Transaction file, five entries for the Commitment Transaction Amount and four entries for the Commitment End Date were made without supporting documentation. This occurred because Mission Office of Financial Management (OFM) personnel did not follow GAO and USAID guidance requiring documentation of all financial transactions.

The General Accounting Office (GAO) Standards for Internal Controls require that all federal financial transactions be backed by supporting documents. The MACS User's Guide, Release No. 20 is in agreement with the stated GAO guidance, requiring that all transactions entered into the MACS be backed by supporting documentation. Normally, journal vouchers approved by supervisory staff provide the supporting documentation for upward and downward adjusting entries. Further, the USAID/Niger memorandum on Office Operations - MACS Coding sheets for Program/Project Funds, dated March 3, 1993 also requires that coding sheets be made for all MACS transactions. These MACS coding sheets are the forms used to record in writing, all entries made into the MACS.

USAID/Niger OFM staff stated that they did not prepare journal vouchers to document the MACS transactions cited above. No reason was provided on why these journal vouchers were not prepared. MACS Coding sheets would have provided alternative supporting documentation for these same transactions. However, OFM staff stated that although MACS coding sheets are always prepared, they are discarded after 3 months. As a result, no supporting documentation exists for these transactions. Therefore, the Mission did not comply with the requirements of (1) the GAO Standards for Internal Controls, (2) the MACS User's Guide, Release No. 20, and (3) the USAID/Niger OFM Memorandum on Office Operations, which state that all transactions entered into MACS must have supporting documentation.

The chart below summarizes the errors found in our review that were caused by transactions which were made without supporting documentation.

<b>SIGNIFICANT ERRORS</b>		
<b>DATA ELEMENT FILE NAME</b>	<b>TRANSACTIONS MADE WITHOUT SUPPORTING DOCUMENTATION</b>	<b>TOTAL NUMBER OF ERRORS</b>
Commitment Amount/Mission (COT)	5	11
Commitment End Date (COT)	4	10
Obligation Transaction Amount (ROT)	5	7

Without supporting documentation, the reason for a transaction and its accuracy cannot be determined.

**Recommendation No. 1:** We recommend that the Director, USAID/Niger:

- 1.1 provide training to Office of Financial Management staff to reinforce the staff's knowledge of the MACS User's Guide requirement to make journal vouchers and coding sheets to document transactions entered into the MACS; and

- 1.2 implement procedures to ensure that these supporting documents (journal vouchers and coding sheets) are kept in a permanent record.

**2. Files Not Updated Properly**

Data in three elements of USAID/Niger's Project Information Master (PIM) file and one element of the Mission's Commitment Transaction file were inaccurate because the information was not updated according to procedures established by the MACS User's Guide (Release 20). These procedures detail the need to:

- verify data elements, including the Project Agreement Date, Project Assistance Completion Date, Project Amount Authorized, and Commitment End Dates, when entering information into the system; and
- periodically review the data elements and adjust them as required.

We reviewed all 50 of the Project Information Master File records and tested seven of the 115 data elements contained in each record. Three data elements among these seven contained significant errors because data was not updated. Specifically, the errors found were the Project Agreement Date with a 42 percent error rate, the Project Assistance Completion Date (PACD) with a 20 percent error rate and the Project Amount Authorized data element with a 56 percent error rate. In addition, we reviewed a sample of 79 transactions from the total of 4,774 transactions in the Commitment Transaction file and found that one element, the Commitment End Date, contained a significant error rate of 11.4 percent.

The chart below summarizes the errors found in our review that were caused by data that was not updated properly.

<b>SIGNIFICANT ERRORS</b>		
<b>DATA ELEMENT FILE NAME</b>	<b>ERRORS CAUSED BY DATA NOT BEING UPDATED</b>	<b>TOTAL NUMBER OF ERRORS</b>
Project Agreement Date (PIM)	21	27

<b>DATA ELEMENT FILE NAME</b>	<b>ERRORS CAUSED BY DATA NOT BEING UPDATED</b>	<b>TOTAL NUMBER OF ERRORS</b>
PACD (PIM)	10	16
Project Amount Authorized (PIM)	28	34
Commitment End Date (COT)	1	9

The information in these data elements was inaccurate because the Mission's procedures did not ensure that the data was updated when new information was received and because periodic reviews for accuracy were not conducted.

Documents used to enter information into MACS do not always contain all the necessary data. Sometimes accounting personnel must use estimated information in order to create a file, especially for new projects. When revisions or corrections are received, accounting personnel should verify that the data in the MACS record is accurate. USAID/Niger personnel did not always make the necessary verifications and corrections.

For example, it was often necessary to enter estimated project data in the Project Information Master file before a grant agreement was actually signed. Accounting personnel created a project record, and assigned a project number and project agreement date to the proposed grant. These steps were necessary to allow the entry of budget and other accounting information into MACS for planned projects. However, in 21 of 50 PIM records (42 percent) accounting personnel did not revise the information in MACS to correspond with approved project/grant agreement dates, once the project agreement was signed.

Similarly, the Project Assistance Completion Date and the Project Amount Authorized data elements were not updated when project end dates and project funding levels were changed. When a project is extended, the new Project Assistance Completion Date and Project Amount Authorized data elements need to be entered into the MACS. However, in the 50 PIM records reviewed 10 (20 percent) PACD and 28 (56 percent) Project Amount Authorized data elements were inaccurate. Further, Commitment End Dates are to be updated as changes in the supporting commitment documents (i.e. contracts, purchase orders) occur. In one of the 79 Commitment Transaction records reviewed, we found that the Commitment End Date was not accurate.

The information contained in the Commitment Transaction and Project Information Master files was not periodically reviewed for accuracy. If the commitment and project information files had been periodically reviewed, it is likely that the errors described above would have been detected and corrected.

**Recommendation No. 2:** We recommend that the Director, USAID/Niger:

- 2.1** correct the errors found in the Commitment End Date, the Project Agreement Date, the Project Assistance Completion Date and the Project Amount Authorized data elements identified in this report;
- 2.2** train personnel in the proper method of updating information in the Mission Accounting and Control System files; and
- 2.3** establish procedures to ensure that data in the Mission Accounting and Control System files is periodically reviewed to ensure the data is accurate.

### **3. Data Not Entered Correctly**

The Project Information Master, Commitment Transaction and Reservation/Obligation files all contained errors caused by data entered incorrectly. Three elements of the Project Information Master file had the most errors in this category. These were the elements for the Project Number, the Terminal Disbursement Date, and the Life of Project (in years). Data which was not entered correctly also occurred in two of the eight elements audited in the Commitment Transaction file. These elements were the Commitment End Date and the Commitment Amount (Mission). In addition, we found errors caused by inaccurate data entry in the Obligation Transaction Amount element of the Reservation/Obligation Transaction file. Further, the Budget Plan Code element of the Budget Allowance Transaction file contained four errors caused by incorrect data entry.

Mission accounting staff stated that a daily register is made of all MACS transactions. They further stated that one of the accountants on their staff performs a daily review of the accuracy of the daily transaction register. However, this procedure did not detect the errors found in the audit.

The chart below summarizes the errors found in our review that were caused by data not having been entered correctly.

<b>SIGNIFICANT ERRORS</b>		
<b>DATA ELEMENT FILE NAME</b>	<b>ERRORS CAUSED BY DATA NOT BEING ENTERED CORRECTLY</b>	<b>TOTAL NUMBER OF ERRORS</b>
Project Number (PIM)	3	9
Terminal Disbursement Date (PIM)	12	18
Life of Project (in Years) (PIM)	17	23
Commitment End Date (COT)	1	10
Commitment Amount (Mission) (COT)	2	11
Budget Plan Code (BAT)	4	5
Obligation Transaction Amount (ROT)	2	7

The primary cause of the above errors was the incorrect copying of data listed on MACS supporting documents to the MACS itself. A secondary cause was that accounting personnel did not fully understand which values were to be entered into these fields.

**Recommendation No. 3:** We recommend that the Director, USAID/Niger issue a reminder notice to the Mission staff to follow the existing Office of Financial Management procedures to ensure that the accuracy of MACS transactions is periodically assessed.

#### **4. Documents Not Maintained Properly**

U.S. General Accounting Office Internal Control Standards require that all transactions be documented by written evidence. In addition, these standards require that the supporting documentation be available and easily accessible.

Our review found that supporting documents for four entries in the Commitment Transaction file and six entries in the Project Information Master file could not be located. For the purposes of this audit, an error rate of less than five percent in the samples selected was determined to be acceptable. Rates of error greater than five percent in the samples selected are considered reportable for audit purposes. Transactions for which supporting documents cannot be located are considered errors. The audited sample for the Commitment Transaction file and the Project Information Master files contained 79 and 50 transactions, respectively. For these reasons, a computation of the error rate for each file, counting the missing supporting documents as errors, results in both the PIM and COT files having reportable error rates before the errors from other causes (see discussions 1, 2 and 3 of this report) are added.

Three of the four missing documents from the Commitment Transaction file and three of the six missing documents from the Project Information Master file were from fiscal year 1992. Mission personnel state that the Office of Financial Management used another filing system in fiscal year 1992 and prior years. For this reason, they stated that supporting documents for these transactions in our samples could not be located. However, nearly half of the missing supporting documents come after fiscal year 1992.

The chart below summarizes the errors found in our review that resulted from documents that were not properly maintained.

<b>SIGNIFICANT ERRORS</b>		
<b>DATA ELEMENT FILE NAME</b>	<b>ERRORS CAUSED BY DOCUMENTS NOT BEING PROPERLY MAINTAINED</b>	<b>TOTAL NUMBER OF ERRORS</b>
Project Assistance Completion Date (PIM)	6	16
Project Authorized Amount (PIM)	6	34
Project Agreement Date (PIM)	6	27
Terminal Disbursement Date (PIM)	6	18
Host Country Contribution (PIM)	6	6
Project Number (PIM)	6	9
Life of Project (PIM)	6	23
Commitment Document Number (COT)	4	6
Earmark Control Number (COT)	4	6
Call Forward Date (COT)	4	4
Project Number (COT)	4	5
Commitment Amount (AID/W) (COT)	4	5
Commitment Amount (Mission) (COT)	4	11
Commitment End Date (COT)	4	10
Budget Plan Code (COT)	4	6

Because the Mission could not locate documents supporting four COT records and six PIM records, the Mission could not support any of the eight elements of the four transactions audited for COT and the seven elements of six transactions audited under PIM.

**Recommendation No. 4: We recommend that the Director, USAID/Niger implement procedures to ensure that the Office of Financial Management maintains supporting documents in a permanent file where they are both accessible and retrievable.**

### **Mission Comments and Our Evaluation**

USAID/Niger concurred with the four audit report recommendations and has taken action to implement Recommendation Nos. 1, 2, 3 and 4. However, we must clarify two inaccuracies in the Mission comments. These inaccuracies are found in the text following Recommendation No. 2 (see Appendix II) and are as follows; (1) the Mission asserts that the draft audit report states that there are twenty-one errors in the Commitment Obligation Transaction file, and further, that it could only locate seven errors; and (2) that "It should be noted that no errors were found in the amounts posted to the COT file".

Through E-Mail correspondence with USAID/Niger, we determined the source of this misunderstanding. In its first statement, the Mission was referring to the number of errors found in the Commitment Amount (Mission) element of the Commitment Transaction file, reported under Recommendation Nos. 1 and 3 (see charts on pages 6 and 10). The Mission had added together the total errors from the two elements of the Commitment Transaction file presented in the chart on page 6 to arrive at their total of 21 errors. For the purposes of the audit, the error rates for each file element are reported separately. Total errors and error rates for the separate elements within each of the six MACS files audited, are not to be combined.

In fact, the draft report shows that there was a total of 11 errors found in the Commitment Amount (Mission) element of the Commitment Transaction file (see chart on page 5). Seven of these errors needed to be corrected, which are the seven errors referred to in the report. Five of these errors were caused by MACS transactions made without supporting documentation (Recommendation No. 1) and two errors were caused by data which was entered incorrectly (Recommendation No. 3). Four additional errors were added to the Commitment Amount (Mission) element of the Commitment Transaction file

under Recommendation No. 4 (see chart on page 12), due to supporting documents which could not be located.

We disagree with the Mission's second statement, asserting that there were no errors in the amounts posted to the COT file. At the time of the audit, we found that incorrectly entered amounts was the cause of two of the eleven total errors in the Commitment Amount (Mission) element of the Commitment Transaction file (Recommendation No. 3). For the nine remaining errors in this element, we were unable to determine the accuracy of the transaction amounts, because (1) for five transactions, no supporting documents were prepared (Recommendation No. 1) and (2) supporting documents could not be located for four transactions (Recommendation No. 4). It is fortunate, that after the completion of the audit, the Mission was able to determine that the amounts for nine of these entries were correct. However, the issue is not that these amounts were found to be correct after the fact, but rather that system weaknesses existed which prevented this determination from being made in the first place. The report recommendations addressed these system weaknesses.

Regardless of the clarifications above, USAID/Niger has fully implemented the report's recommendations. In response to Recommendation Nos. 1, 2, 3 and 4, the Mission has corrected the errors found in the MACS and held meetings with the Office of Financial Management (OFM) staff to emphasize the requirement for the preparation of supporting documentation for each MACS entry. USAID/Niger also underscored the need for the periodic review of the information in the MACS to ensure that it is up-to-date. In addition, the Mission stressed the importance of maintaining these supporting documents in a permanent record. Further, the Mission has distributed a memorandum to the OFM staff to formalize these requirements as an office procedure. In lieu of the training advised in Recommendation No. 2.2, the Mission has opted for increased supervision of the OFM staff in the implementation of the new procedures noted above. This action satisfies the intent of this recommendation. Based upon the actions taken by the Mission, as substantiated in the Mission's August 17, 1995 memorandum and supporting documentation, Recommendation Nos. 1, 2, 3, and 4 are closed upon report issuance.

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## SCOPE AND METHODOLOGY

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### Scope

The Office of the Regional Inspector General for Audit, Dakar audited the quality of data maintained in the USAID/Niger MACS files in accordance with generally accepted government auditing standards. Performed during the period from March 6 to March 31, 1995, at USAID/Niger, the audit reviewed six files and 38 data elements from a universe of 28 MACS Transaction/Master files and 757 data elements (21.4 and 5.0 percent respectively). If the error rate was significant on any of the data elements, we also evaluated the cause and made the appropriate recommendations.

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### Methodology

The Office of Audit consulted with Financial Management officials in Washington, D.C. and identified the MACS files and key data elements that would be reviewed for each file. We analyzed USAID/Niger MACS transactions for the period October 1, 1991 to January 31, 1995 from six of the twenty-eight MACS Transaction/Master files<sup>2</sup>:

- Budget Allowance Transaction
- Reservation/Obligation Transaction
- Commitment Transaction
- Disbursement Transaction
- Advance Transaction
- Project Information Master

We selected a statistical sample for five of the data files that would provide a confidence level of 90 percent and a precision level of plus or minus four percent. We reviewed 100 percent of the records in the Project Information Master file.

For each data element reviewed (dollar amounts, dates, document numbers, etc.), we determined whether the data in MACS was supported by information from a source document(s). Based on the results of these determinations, we calculated error rates for each data element and assessed whether the error rate was significant. An error rate of five percent or greater was considered

significant. Data elements with an error rate of less than five percent were considered accurate for reporting purposes. We statistically projected the estimated number of errors in the Mission MACS by multiplying actual number of errors in our statistical sample by the total number of MACS entries in each MACS file.



## MEMORANDUM

AUG 25 1995

DATE : August 17, 1995  
FROM : Keith <sup>YLR</sup> Simmons, Acting Director, USAID/Niger  
SUBJECT : Audit of the Quality of MACS Data at USAID/Niger  
TO : Thomas B. Anklewich, RIG/A

USAID/Niger appreciates the professional manner in which the auditors conducted the audit of the Quality of MACS Data at USAID/Niger.

We agree with most of your findings and recommendations and have take actions where appropriate to implement the recommendations. During the last three years the Office of Financial Management has made tremendous progress in improving its operations. All of the FN employees have received both formal and on the job training. Improvements have been made in the MACS data by clearly defining areas of responsibility and establishing a system of issuing internal operating memorandums. We recognize that there is room for improvement and therefore we welcome the audit findings.

The Mission's comments on the draft audit report and recommendations are provided for your consideration and inclusion in the final audit report.

**Recommendation No. 1:** We recommend that the Director, USAID/Niger:

- 1.1 provide training to Office of Financial Management staff to reinforce the staff's knowledge of the MACS User's Guide requirement to make journal vouchers and coding sheets to document transactions entered into the MACS; and
- 1.2 implement procedures to ensure that these supporting documents (journal vouchers and coding sheets) are kept in a permanent record.

We have accepted and implemented this recommendation. Meetings have been held with the Office of Financial Management (OFM) staff to emphasize the rule that no entries are to be made to the MACS without supporting documentation. A written procedure has been discussed with and agreed to by the OFM staff. (Attachment II).

Procedures are also in place to ensure that supporting documents and coding sheets are maintained in a permanent file (Attachment II).

Recommendation No. 2: We recommend that the Director, USAID/Niger:

- 2.1 correct the errors found in the Commitment End Date, the Project Agreement Date, the Project Assistance Completion Date and the Project Amount Authorized data elements identified in this report;
- 2.2 train personnel in the proper method of updating information in the Mission Accounting and Control System files; and
- 2.3 establish procedures to ensure that data in the Mission Accounting and Control System files is periodically reviewed to ensure the data is accurate.

We have reviewed all of the data in the Project Information Master (PIM) file for current activities and have made all corrections where erroneous data were found. We do not believe that it is necessary or cost effective to attempt to correct data in the PIM file for old closed projects. Your draft report cites twenty-one errors in the Commitment Obligation Transaction (COT) file we found that there were only seven (Attachment III). We have made corrections for the current activities. Again, we will not make corrections for closed purchase orders. It should be noted that no errors were found in the amounts posted to the COT file.

No additional training of personnel is needed, however, we have made it clear to the OFM staff that all data entered into MACS must be correct and that the files must reflect updated information. Procedures are now in place to ensure that data in the MACS is correct by requiring daily reviews of transaction registers. (Attachment I). Also periodic reviews will be made by the Chief Accountant to ensure that the PIM file is updated as needed. These recommendations have been fully complied with.

Recommendation No. 3: We recommend that the Director, USAID/Niger issue a reminder notice to the Mission staff to follow the existing Office of Financial Management procedures to ensure that the accuracy of MACS transactions is periodically assessed.

We have fully complied with recommendation no. 3. In addition to verbal instructions previously given that violation of office operations procedures will not be tolerated, we have issued a written memorandum to OFM staff to remind them of this fact.

Recommendation No. 4: We recommend that the Director, USAID/Niger implement procedures to ensure that the Office of Financial Management maintains supporting documents in a permanent file where they are both accessible and retrievable.

All supporting documents for entries made to MACS are maintained in permanent files and are accessible and retrievable. Written procedures have been issued to the OFM staff to ensure that the procedure continues. (Attachment IV).

Drafted:GLSmith,doc:Thomas.A:wp:8/17/95:KM

**USAID/Niger**  
**MACS FILES AND ELEMENTS REVIEWED**

<u>MACS FILES/ELEMENT</u>	<u>UNIVERSE</u>	<u>NUMBER IN SAMPLE</u>	<u>ERRORS IN SAMPLE</u>	<u>ERROR RATE</u>	<u>PROJECTED ERRORS IN UNIVERSE</u>
<b>BUDGET ALLOWANCE TRANSACTION (1 missing supporting document)</b>					
Budget Plan Code	241	61	5	8.20%	20
Transaction Amount	241	61	2	3.28%	8
Project Number	241	61	1	1.64%	4
<b>RESERVATION/OBLIGATION TRANSACTION FILE</b>					
Obligation Document Number	10,518	80	1	1.25	131
Reservation Control Number	10,518	80	2	2.50%	263
Budget Plan Code	10,518	80	2	2.50%	263
Transaction Amount	10,518	80	7	8.75%	920
<b>COMMITMENT TRANSACTION FILE (4 missing supporting documents)</b>					
Commitment Doc. Number	4,774	79	6	7.59%	362
Earmark Control Number	4,774	79	6	7.59%	362
Call Forward Date	4,774	79	4	5.06%	242
Project Number	4,774	79	5	6.33%	302
Transaction Amount (AID/W)	4,774	79	5	6.33%	302
Transaction Amount (Mission)	4,774	79	11	13.92%	665
Commitment End Date	4,774	79	10	12.66%	604
Budget Plan Code	4,774	79	6	7.59%	362
<b>DISBURSEMENT TRANSACTION FILE</b>					
Obligation/Commitment Doc. No.	29,740	81	0	0.00%	None
Reservation/Earmark Control No.	29,740	81	0	0.00%	None
Transaction Type Code	29,740	81	0	0.00%	None
Budget Plan Code	29,740	81	0	0.00%	None
Disbursing Office Code	29,740	81	0	0.00%	None
Federal Outlay Code	29,740	81	0	0.00%	None
Actual Disbursement Amt. (local)	29,740	81	0	0.00%	None
Budget Allowance Disbursement	29,740	81	2	2.47%	734
<b>ADVANCE TRANSACTION FILE</b>					
Advance Number	2,732	79	0	0.00%	None
Obligation Doc. No.	2,732	79	0	0.00%	None
Commitment Doc. No.	2,732	79	0	0.00%	None
Project No.	2,732	79	0	0.00%	None
Advance Type	2,732	79	0	0.00%	None
Accountability Date	2,732	79	0	0.00%	None
Advance Transaction Amount Local	2,732	79	0	0.00%	None
Currency Amount	2,732	79	0	0.00%	None

## PROJECT INFORMATION MASTER FILE (6 missing supporting documents)

PACD	50	50	16	32.00%	16
Authorized Amount	50	50	34	68.00%	34
Project Agreement Date	50	50	27	54.00%	27
Terminal Disbursement Date	50	50	18	36.00%	18
Host Country Contribution	50	50	6	12.00%	6
Project Number	50	50	9	18.00%	9
Life of Project (In Years)	50	50	23	46.00%	23

\* Error rates of less than five percent were considered accurate for reporting purposes.

<b>MACS TRANSACTION AND MASTER FILES NUMBER OF DATA ELEMENTS</b>	
<b>MACS FILE NAME</b>	<b># OF ELEMENTS PER RECORD</b>
Operating Expense Budget Master	10
Operating Expense Budget Transaction	12
Budget Allowance Master File	13
Budget Allowance Transaction File	12
Reservation Master File	17
Obligation Master File	37
Reservation/Obligation Transaction File	20
Project Information Master File	115
Project Information Transaction File	25
Condition Precedent Transaction File	96
Project Element Master File	13
Project Element Transaction File	12
Direct Reimbursement Authorization (DRA) Master File	16
Direct Reimbursement Authorization (DRA) Transaction File	17
Earmark Master File	20
Earmark Transaction File	19
Commitment Master File	41
Commitment Transaction File	25
Advance Master File	22
Advance Transaction File	30
Planned Expenditures Master File	13
Planned Expenditures Transaction File	15
Accrual Transaction File	18
Prepayment Amortization Transaction File	23
Disbursement Transaction File	28
Interface Disbursement/Advance File	36

**MACS TRANSACTION AND MASTER FILES  
NUMBER OF DATA ELEMENTS**

Interface Disbursement/Advance Reject File	35
Prepayment Amortization File	17
<b>Totals 28 MACS FILES</b>	<b>757</b>

## USAID'S INFORMATION MANAGEMENT

This new USAID effort to establish a quality information system is described in the Agency's Information Systems Plan (ISP).<sup>3</sup> A primary goal of this plan is to have corporate data managed at the Agency level rather than "owned" by each individual office.

Using an information engineering methodology, models of the Agency's business processes and data requirements were created. These models were then broken into eight logical Business Areas. Each Business Area represents related functions within the Agency that share similar business processes and data needs. Each of these eight areas will be studied in depth, in a process called Business Area Analysis (BAA).

The Business Area Analysis (BAA) provides a greater level of detail on the functions in each area and provides a basis for designing system requirements. Each BAA 1) continues to model the data requirements and business functions, 2) includes this information in the Agency's electronic repository, and 3) reconciles the new models back to the Agency-wide models. This results in a high degree of standardization, stability, and reusability.

Currently three BAA's are being conducted—Core Accounting, Procurement, and Budgeting. The inter-dependencies of these three business areas are high and will require significant sharing of data. Therefore, to facilitate the systems development work, IRM is planning a data warehouse that will allow movement to a data sharing environment.

Populating this data warehouse will begin with transferring MACS transaction level data into the warehouse. The Core Accounting BAA, which includes the AWACS<sup>4</sup> project, needs a functioning warehouse to provide the most benefit to the Agency.

Smaller initiatives are under way to begin the transition to a corporate database. PIPE (Project Information and Pipeline Evaluation) currently brings in summary MACS and FACS data, to provide project status and pipeline information to Agency managers. In order to make sound decisions, it is important that managers using such information know the quality of the data being used.

<sup>3</sup> Information Systems Plan, Volume I: Report To Management, February 1993.

<sup>4</sup> AID/Washington Accounting System