HAWAII/FAMIS PROCEDURES MANUAL

VOLUME I - USERS MANUAL

CHAPTER IX

FILE INQUIRY
To be of maximum value, financial data used in the decision-making process must be both accurate and available in a timely manner. The FAMIS edit/update processing module and the reporting module satisfy both of these fundamental requirements on an overnight basis. However, FAMIS also provides for immediate reporting of transaction errors and account balances by making the system tables and copies of the master files available for on-line access throughout the day. For purposes of discussion, these on-line files are called 'shadow files'.

The use of shadow files allows central accounting and agency fiscal personnel to use FAMIS as if they were in an on-line interactive mode. Pertinent account balances and related information can be accessed on-line, transactions can be edited against the tables, and files and valid transactions can be 'memo' posted to the shadow files so their effect can be determined before posting them to the master files during the overnight batch update cycle. The purpose of this chapter is to describe in detail the structure of the FAMIS shadow files and tables, and how they can be effectively utilized by fiscal personnel.

**OVERVIEW OF SHADOW FILES**

Shadow files are actually condensed copies of the FAMIS master files that are made available for access by central accounting and user department personnel throughout the day. Several important system capabilities are provided through the shadow files, including:

- **On-line editing during data entry** - By specifying the desired edit indicator on the batch header slip, agency fiscal personnel can choose one of three types of on-line edits to be performed during data entry before the transactions are saved on the on-line transaction file for subsequent transmittal to batch FAMIS. Within a batch, accounting transactions may not be edited at all except for reasonableness and general batch balancing; they may be edited against the tables to check the validity of the codes entered and against the files to check the availability of funds.
Online updating of shadow files - If desired, certain shadow files may be updated online to reflect the transactions entered during the day that satisfy all of the table and fund control edits. This capability allows users to see the effect of transactions on the files before they are actually processed through the input, edit, and update cycle of batch FAMIS, and provides up-to-the-minute information about the status of the agency's account balances.

Online inquiry - The data contained in the shadow files can be viewed on the screen at the terminal for quick reference to classification codes, account balances, and related information.

It should be noted that all of the FAMIS tables are also available online throughout the day. Procedures for accessing the system tables are provided in Volume II, Chapter IV, "Table Maintenance Data Entry" of the FAMIS Procedures Manual.

Creating Shadow Files

Two types of shadow files are created by FAMIS for use by State fiscal personnel. The two types of files are 'central' shadow files and 'departmental' shadow files. Each of these are described below.

Central Shadow Files

The central shadow files are created on a daily basis at the end of each FAMIS edit/update cycle. These shadow files are:

- Appropriation/Cash Shadow File;
- Allotment Shadow File;
- Contract Ledger Shadow File;
- Document Shadow File;
- Vendor Payment Shadow File;
- Warrant Writing/Error Status Shadow File; and
- Contract Ledger Detail Transaction Shadow File.
Like the corresponding batch master files, these shadow files will reflect all transactions approved for processing by central accounting that have passed the system edit criteria and have successfully posted. The process for creating and updating these files is illustrated in Exhibit IX-1.

The appropriation and allotment shadow files are provided for on-line editing and posting of accounting transactions and inquiry. The document, contract ledger, and vendor payment shadow files are available for inquiry only. Inquiry against the document and vendor payment shadow file is also available to departmental personnel.

The appropriation and allotment shadow files may be updated throughout the day with accounting transactions entered through the on-line terminals. Transactions posted to the shadow files during the day may be subsequently rejected during overnight batch processing. These transactions may be rejected for a number of reasons, but will generally result from table changes made after the transaction was entered on-line. In this situation, transactions that may have successfully shadow file posted one day will not be reflected on the next day's shadow file, because the transaction is on the error file.

**Departmental Shadow Files**

The second set of shadow files are the Departmental Shadow Files which are provided for use by departmental personnel. The Departmental Shadow Files are:

- Department Appropriation/Cash Shadow File;
- Department Allotment Shadow File;
- Project Shadow File;
- Department Contract Ledger Shadow File;
- Project/Grant Cash Status Shadow File; and
Department Contract Ledger Detail Shadow File.

The first three files are available for editing and posting accounting transactions while all six are available for inquiry purposes. Again, on-line access to these files is controlled through the sign-on security table.

The Departmental Shadow Files are 'more current' than the central shadow files since they reflect all transactions entered by a department, not just those approved for processing by central accounting. All transactions placed on 'Hold' status by the department, those released for preliminary edit processing, and transactions from the error file are posted to the departmental files. In fact, these files are created by the FAMIS preliminary edit module. This process is also illustrated in Exhibit IX-1.

**SHADOW FILE EDITING AND POSTING**

One of the primary functions of the FAMIS shadow files is to provide fiscal personnel with the option of editing and posting input accounting transactions during on-line data entry. Since it may not be desirable to have all transactions fully edited, three editing options are available. These options are:

- 'A' - No edits except for reasonableness and batch balancing (data entry only);
- 'B' - Reasonableness and table look-up edits; and
- 'C' - Reasonableness, table look-up and fund control edits and shadow file updates.

The editing option desired is keyed on the batch header input screen as the Batch Edit Indicator. The location of this indicator on the data entry screen is illustrated in Exhibit IX-2. The specific option selected may be varied by batch. However, like all other batch identification data, once the edit indicator is entered for a specific batch, it cannot be changed, and it applies to all the transactions within the batch. The edit option selected is
EXHIBIT IX-2

BATCH HEADER ID SCREEN
BATCH TYPE: X
DEPT: XX
DEPT BATCH REF NO: XXXXXXX
FISCAL MONTH: XX
BATCH DATE: MM DD YY
BATCH NO: XXX
COMPTV VOUCHER NO: XXXXXXXX
WARRANT WRITING SUB-FUND: X
WARRANT ROUTING IND: X
RED TAG IND: X PAYMENT TYPE IND: X
DEPT BATCH STATUS: X CA BATCH STATUS: X
PRE-AUDIT RELEASE DATE: MM DD YY
BATCH EDIT OPTION: X

ENTER NUMBER OF TRANSACTIONS IN BATCH: XXXX
ENTER BATCH AMOUNT: XXXXXXXXXXXX

SELECT DETAIL INPUT SCREEN: X
1--GENERAL ACCOUNTING TRANSACTION INPUT
2--ENCUMBRANCE ACCOUNTING TRANSACTION INPUT
3--EXPENDITURE ACCOUNTING TRANSACTION INPUT
4--RECEIPT ACCOUNTING TRANSACTION INPUT
5--ALLOTMENT ACCOUNTING TRANSACTION INPUT
XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX
XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX

displayed on each of the detail accounting transaction input screens next to the heading "BATCH EDIT OPTION" at the top of the screen. The messages that may be displayed are identified in Exhibit IX-3. The processing performed under each of the editing options is described in the following paragraphs.

Editing Option 'A'

The user should key option 'A' on the batch header screen if no editing of the input transactions against the shadow files and tables is desired. For example, if a large volume of non-critical transactions such as budget plans must be keyed in a short period of time, or if non-accounting personnel are performing the data entry, this option should be selected. As noted in Exhibit IX-3, when this option is selected, the words 'DATA ENTRY ONLY' are displayed as the mode on each of the detailed transaction data input screens.

The transactions entered in option 'A' batches are edited only for reasonableness (e.g., presence of a transaction code and amount). If an error is detected the appropriate error message is displayed, the field in error is highlighted, and the transaction is not saved on the transaction file. If the reasonableness edits are passed, the message 'TRANSACTION SUCCESSFULLY WRITTEN' is displayed on the screen, and the transaction is saved on the transaction file.

Editing Option 'B'

The user should key option 'B' on the batch header screen if editing input transactions against the FAMIS tables, but not the shadow files, is desired. For example, if the data entry personnel are allowed to correct input errors, and current reporting of funds status is not essential, this option may be selected. When this option is selected, the words 'SHADOW EDIT ONLY' are displayed as the mode on the detail accounting transaction input screen.
<table>
<thead>
<tr>
<th>OPTION SELECTED</th>
<th>MESSAGE DISPLAYED</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>DATA ENTRY ONLY</td>
</tr>
<tr>
<td>B</td>
<td>SHADOW EDIT ONLY</td>
</tr>
<tr>
<td>C</td>
<td>SHADOW EDIT AND TRIAL</td>
</tr>
</tbody>
</table>
Transactions entered in option 'B' batches are first edited for reasonableness as in option 'A'. When these edits are passed, the system then compares the data elements coded on the input transaction to the codes contained in the system tables. The edits performed online are generally the same as those performed by batch FAMIS. If all of the codes entered are valid, the message 'TRANSACTION SUCCESSFULLY WRITTEN' is displayed at the bottom of the data entry screen. However, if one or more of the codes entered are invalid, the field in error is highlighted and the appropriate error message is displayed. If the user desires to save the transaction without correcting the invalid data element, then function key PFI is depressed.

**Editing Option 'C'**

The user should specify option 'C' if editing input transactions against both the tables and shadow files is desired. When this option is selected, the words 'SHADOW EDIT AND TRIAL' are displayed as the mode on the detail accounting transaction input screen.

Transactions entered in option 'C' batches are first edited for reasonableness as in option 'A'. When these edits are passed, the system then performs the same table edits as in option 'B' described above. After all of the table edits are passed, the transaction must also pass several fund control edits before it is saved on the transaction file.

To perform fund control edits, the system compares the transaction being recorded to the available balances contained in the shadow file. Transactions entered by central accounting personnel are edited against the central shadow files while those entered by the departments are edited against the departmental shadow files. If the transaction amount exceeds the amount of available funds in one or more of these files, the transaction will fail the fund control edit.
When the system detects a funds control error, it accesses the appropriate tables to determine the severity of the error and the processing to be performed. There are several indicators in the tables that dictate the type of funds control being performed on appropriations, allotments and project balances. Central accounting funds control edit indicators are in the Appropriation Account Code Table while departmental indicators are contained in the D53 - Departmental Indicators Descriptor Table. The Appropriation Account Code Table indicators control funds control editing if data entry is being performed by central accounting. The D53 indicators control funds control editing if data entry is being performed by the department and an absolute funds control error is encountered. Control may be specified as either absolute, advisory or no control. The online processing performed on an input transaction that violates a funds control edit under each type of funds control is described in the following paragraphs.

No Funds Control - If the control type indicator related to the funds control error is set to 'I' or '2' for no funds control, the system will save the transaction on the transaction file and display the message 'TRANSACTION SUCCESSFULLY WRITTEN' at the bottom of the screen. No error message will be displayed.

Advisory Funds Control - If the control type indicator related to the funds control error in either table is set to 'W' or 'I' for advisory control, the transaction is still valid, so it is saved on the transaction file. However, to alert the user that a funds control error has been detected, the message 'TRANSACTION SUCCESSFULLY WRITTEN...WITH WARNING MESSAGES' is displayed at the bottom of the screen along with warning messages identifying the specific funds control error.

Absolute Funds Control - If the control type indicator related to the funds control error in either table is set to an 'F' or 'O' for absolute control, the transaction is not accepted. Instead, the transaction is displayed on the screen again with the appropriate error code and message at the bottom of the screen. The transaction would not be saved on the transaction file until the error is corrected or the transaction is 'forced' using the override capability. This is accomplished by depressing the PF1 key in place of the 'ENTER' key.
It should be emphasized that the system only accesses the D53 table to determine the severity of a funds control error when the related control type indicator (e.g., Appropriation Control Type Indicator in the Appropriation Table) is set to 'F' for absolute control and data entry is being performed by departmental personnel. Of course, if a funds control error is detected for which there is no specific control type indicator (e.g., department allotment control), the system accesses the D-53-table directly to determine the severity of the error.

On-Line Posting to Shadow Files

As described in the previous paragraphs, when a user specifies editing option 'C', both table edits and fund control edits are performed. If the input transaction has no fatal errors, it is also posted online to the appropriate shadow files. If the transaction does have one or more fatal errors and is 'forced' with the PF1 key, the transaction is saved for overnight batch processing, but the shadow files are not updated.

The shadow files are updated by option 'C' transactions as they are entered. In other words, as soon as the 'ENTER' key is pressed for the first transaction in an option 'C' batch, the shadow files are updated by the transaction. Thus, the user cannot prevent a transaction in an option 'C' batch from updating the shadow files by setting the batch status to 'H' - Hold or 'D' - Delete. The effect of a deleted transaction on the shadow files will be eliminated when the shadow files are refreshed after the next batch update cycle.

This online updating provides fiscal personnel with more current information about the status of their account balances. For example, an appropriation balance might be $100,000 as of the previous batch update cycle. If a transaction recording a $60,000 expenditure against this
appropriation account is entered and passes all of the online edits, the available appropriation balance would then be $40,000. If an attempt is then made to enter another $50,000 transaction against this appropriation account, an error message indicating that the account would be overexpended would be displayed on the screen, since the expenditure amount is greater than the net available appropriation balance.

It is important to note that only option 'C' transactions update the shadow files. In the above example, if the $60,000 expenditure transaction had been entered in an option 'B' or option 'A' batch, the appropriation shadow file would still reflect a $100,000 available balance. Thus, specifying editing option 'C' is encouraged, since this will reduce the number of invalid transactions transmitted to batch FAMIS.

**Posting Differences**

Errors will not be completely eliminated when shadow files are used for online editing for a number of reasons. First, since the Document file is not used during the online editing posting/posting process, transactions that are accepted online may still be flagged as an error by batch FAMIS if they contain any document errors, such as an initial document exception error caused by trying to record a duplicate document number.

Batch FAMIS may also detect a fund control error that the online system did not, if previously encumbered expenditure transactions were entered during the day. The online system cannot determine the net encumbrance amount to be liquidated since the Document File is not used for online editing. As a result, the total amount of the expenditure transaction will be credited against the encumbrance amount. If the expenditure amount is more than the original encumbrance amount, the available balance will be overstated by the difference. Of course, at the end of the day batch FAMIS will compute the
proper encumbrance liquidation amount, so the next day's shadow files will reflect the correct balances.

Another cause of discrepancy between online and batch processing of transactions is the entry of table maintenance transactions. The tables are not updated online by table maintenance transactions entered during the day; they are only as current as the last update cycle. Thus, transactions may pass the online table edits but still be rejected by batch FAMIS if table maintenance transactions changing the system tables had been entered during the day.

A final cause of discrepancy between the batch and the online processing may result from subsystem processing. For example, an expenditure transaction may pass the online fund control edits during the day, but fail them at night during batch processing because transactions generated by another subsystem module reduced the available appropriation balance.

**Editing Option Override**

Occasionally the user may wish to have a financial transaction in an option 'B' or 'C' batch accepted even if it fails a table or fund control edit. For example, a table maintenance entry may have been entered during the day to add the code that is being rejected in the input transaction. Since the tables are not updated online, the accounting transaction would not be accepted due to the online table edits; however, it will be posted by batch FAMIS after the table maintenance entry is posted.

To override the online edits, the user must depress the PF1 key at the top of the keyboard, instead of the 'ENTER' key. When the override capability is used, the message 'FORCED TRANSACTION SUCCESSFULLY WRITTEN' is displayed on the screen. A forced transaction is saved on the transaction file for transmittal to batch FAMIS, but it is not posted to the shadow files. If the
forced transaction is still in error during the batch update process, it will be placed on the error file.

**Batch Correction**

When a batch of accounting transactions is recalled for correction through the online terminal, the same edits that were performed on the batch during original data entry are re-executed on the transactions being corrected. If the original editing option specified was 'B', a corrected transaction must pass all of the online table edits before it will replace the previously entered transaction. If an edit is failed, the appropriate error message will be displayed and the original transaction will remain unchanged.

Similarly, a corrected transaction in an option 'C' batch must pass all of the online table and fund control edits before it will replace the previously entered transaction. Transactions that fail one of these edits will not be accepted, and the transaction file and shadow files will remain unchanged. However, if a corrected transaction passes all of the edits, the old transaction is reversed out and the new transaction posted. A correction transaction that is forced using the PF1 key will not post to the shadow files.

At this point, the user must press either the PA1 key to go back to the Recall a Batch screen, or the PA2 key to go to Batch Balance. It should be noted that if a transaction is recalled that does not need to be corrected, or if the user wishes to view the entire transaction as it was entered, the user can press the PA1 key instead of the 'ENTER' key to avoid re-editing the transaction. The system will leave the original transaction intact and go back to the Recall screen.
Additional Shadow File Update Procedures

Once option 'C' transactions are entered and posted to the shadow files, changing the status of a batch to 'H' - Hold or 'D' - Delete does not reverse out the effect of the transactions included in the batch that have already posted in the shadow files during the day. If the user wishes to delete the transactions and reverse the shadow file posting, each transaction in the batch must be deleted individually.

Similar procedures are required to update the central accounting shadow files with "Held" batches that were entered on a previous day. Shadow files are updated on the day the batch is entered, but if the batch is in Hold status at the end of the day, the transactions are erased from the central accounting shadow files after processing since they did not post to the master files. If the user wishes to repost the transactions to the current day's shadow files, each transaction in the batch must be recalled for correction and re-entered. Similar procedures are not required for the departmental shadow files since they are automatically updated with transactions in a 'Hold' status.

Finally, it should be noted that transactions that are shadow file posted by the departments will not affect the central accounting shadow files. Similarly, accounting transactions that are shadow file posted by central accounting will not affect the departmental shadow files at that time.

INQUIRY

The third major capability provided by the FAMIS shadow files and tables is online inquiry. Users have online access to pertinent accounting data as current as the last batch update cycle, and they can also see the effects of the current day's transactions on the shadow files if transactions were entered with editing option 'C', as described in the preceding paragraphs. Of
course, individual users have access only to the data contained in the files and tables of their authorized department(s) determined by the security sign-on procedures.

Table Inquiry

On-line inquiry into the tables is accomplished through the same data entry screens used to record table maintenance transactions. When one of the table maintenance functions is entered on the FAMIS Master Menu, the appropriate table maintenance screen will be displayed, with the cursor prompting the user to enter a function.

To view a table record on the screen, the user should enter function 'V' - View, and the table control key of the desired record. The control key fields of all FAMIS tables are displayed on the first line of the table maintenance screens after department code. When the 'ENTER' key is pressed, the system will display all of the data elements contained in the table for the record requested. All table inquiries are limited to one record per screen.

Once a table record is displayed on the screen, the user may change any of the data fields, except department code, and enter a table maintenance function to create a table maintenance transaction. As described earlier, with the exception of the Vendor Edit Table, table maintenance transactions are not posted to the tables online. As a result, they are not reflected in the tables until the next batch update cycle.

If a record is requested that does not exist on the Shadow table, the message 'RECORD REQUESTED FOR VIEW OPTION DOESN'T EXIST' is displayed at the bottom of the screen. If this occurs, the user must re-enter the request with the correct control key data elements.
A complete description of all online table maintenance functions is provided in Volume II, Chapter IV, Table Maintenance Data Entry, of the FAMIS Procedures Manual.

Shadow File Inquiry

For all files except the Vendor Payment shadow file, online inquiry is similar to table inquiry in that it is limited to one record per screen display. In all of the files, function 'S', Start Read, should be used to find and display a record on the screen. Unlike the table inquiry, the shadow files do not require the user to enter all of the data elements in the control key in order to view a record on the screen. The user has the option of entering a complete record key, a partial key or no data elements at all.

If the user enters function 'S' with no data elements specified, the system will display the first record contained on the shadow file. Alternatively, if the user enters an entire record-key, the system will display the record contained on the shadow file that is identified by that key. If a record containing the control key entered does not exist, the system will display the next record in ascending sequence to the record-key entered. Finally, if the user doesn't know the entire key of the record desired, only the first few data fields that comprise a record-key need be entered. The system will display the first record on the shadow file that contains the specified fields.

It should be noted that if a user enters a partial record-key, the fields specified must be consecutive from left to right, beginning with the first field after department code. For example, in the Department Appropriation shadow file, the user may enter Division, Fund and Fiscal Year to retrieve the first record that contains the specified fields. However, the user should not enter only Division and Fiscal Year, for example, since they are not
consecutive. If such fields were entered, the system would retrieve the first appropriation within the division specified, regardless of the fiscal year entered.

Once a requested record has been displayed on the screen, the user may then page through the file. Function 'N' pages forward to the next record on the file; function 'P' pages backward to the previous record. When the last record contained in the shadow file is displayed, the message 'NO REMAINING RECORDS IN AUTHORIZED ORGANIZATION(S)' will appear if the Next Record function is entered again.

Finally, to clear the screen of the data displayed, function 'C' - Clear, should be entered.

Fiscal Periods

Every shadow file displays three columns of financial data relating to a specific fiscal period, as follows:

- **Current Month Cum-To-Date** - presents the cumulative-to-date current monthly balances in each account;

- **Current Month Beginning Balance** - represents the current month beginning balance (prior month ending balance); and

- **Prev Year Total** - displays the ending accounting balances as of the end of the prior fiscal year.

The amounts displayed in the three columns correspond to the amounts that would be displayed on the FAMIS standard financial reports using the Current Month (CM), Prior Month (PM) and Prior Year (PY) fiscal period options. A detailed description of the FAMIS standard financial reports is presented in Volume I, Chapter VIII, 'Financial Reporting' of the FAMIS Procedures Manual.
Signed Fields

The amount field displayed on the shadow file inquiry screens are signed fields; i.e., a positive (+) or negative sign (-) appears to the right of each balance. The signs displayed indicate the way the data is actually posted in the files. A positive sign represents a debit balance and a negative sign represents a credit balance. For example, since the appropriation is a credit balance account, it will normally appear with a minus (-) or credit sign next to it. Similarly, since expenditures are a debit balance account, it will normally appear with a plus (+) or a debit sign next to it.

To access the shadow files, the user must enter one of the inquiry functions from the FAMIS Master Menu. The following paragraphs provide a description of each of the shadow file inquiry functions.

Appropriation/Cash Shadow File

The Appropriation/Cash Shadow File inquiry screen may be accessed by entering function '60' on the FAMIS Master Menu. A format of this screen is illustrated in Exhibit IX-4. The screen displays the various control key elements that uniquely identify an appropriation as well as related informational elements such as the appropriation type, last update date, and lapse date.

The financial balances displayed on the screen are in three sections and are summarized balances from the master file records. The purpose of the first section is to reflect the available appropriation balance. The available balance for appropriation types A (Federal Operating Allotment), B (State CIP Allotment), G (General CIP), I (Operating Allotment), 2 (State Operating Allotment), 4 (G.O. Bonds) or 5 (Revenue Bonds) represent the amount which have not been allotted. The amount fields for expenditures, claims and
### EXHIBIT IX-4

**APPROPRIATION AND CASH SHADOW FILE INQUIRY SCREEN**

**APPROPRIATION AND CASH SHADOW FILE INQUIRY**

ENTER FUNCTION: X (S=START READ, N=NEXT RECORD, P=PREVIOUS RECORD, C=CLEAR)


<table>
<thead>
<tr>
<th></th>
<th>CURR MO CUMM-TO-DATE</th>
<th>CURR MO BEG BAL</th>
<th>PREV YEAR TOTAL</th>
</tr>
</thead>
<tbody>
<tr>
<td>NET APPRNS</td>
<td>ZZ,ZZZ,ZZZ,ZZZ.99</td>
<td>ZZ,ZZZ,ZZZ,ZZZ.99</td>
<td>ZZ,ZZZ,ZZZ,ZZZ.99</td>
</tr>
<tr>
<td>ALLOTMENTS</td>
<td>ZZ,ZZZ,ZZZ,ZZZ.99</td>
<td>ZZ,ZZZ,ZZZ,ZZZ.99</td>
<td>ZZ,ZZZ,ZZZ,ZZZ.99</td>
</tr>
<tr>
<td>EXPENDITURES</td>
<td>ZZ,ZZZ,ZZZ,ZZZ.99</td>
<td>ZZ,ZZZ,ZZZ,ZZZ.99</td>
<td>ZZ,ZZZ,ZZZ,ZZZ.99</td>
</tr>
<tr>
<td>ENCUMB CONTRACTS</td>
<td>ZZ,ZZZ,ZZZ,ZZZ.99</td>
<td>ZZ,ZZZ,ZZZ,ZZZ.99</td>
<td>ZZ,ZZZ,ZZZ,ZZZ.99</td>
</tr>
<tr>
<td>ENCUMB CLAIMS</td>
<td>ZZ,ZZZ,ZZZ,ZZZ.99</td>
<td>ZZ,ZZZ,ZZZ,ZZZ.99</td>
<td>ZZ,ZZZ,ZZZ,ZZZ.99</td>
</tr>
<tr>
<td>AVAILABLE BALANCE</td>
<td>ZZ,ZZZ,ZZZ,ZZZ.99</td>
<td>ZZ,ZZZ,ZZZ,ZZZ.99</td>
<td>ZZ,ZZZ,ZZZ,ZZZ.99</td>
</tr>
<tr>
<td>CASH</td>
<td>ZZ,ZZZ,ZZZ,ZZZ.99</td>
<td>ZZ,ZZZ,ZZZ,ZZZ.99</td>
<td>ZZ,ZZZ,ZZZ,ZZZ.99</td>
</tr>
<tr>
<td>EXPENDITURES</td>
<td>ZZ,ZZZ,ZZZ,ZZZ.99</td>
<td>ZZ,ZZZ,ZZZ,ZZZ.99</td>
<td>ZZ,ZZZ,ZZZ,ZZZ.99</td>
</tr>
<tr>
<td>ENCUMB CONTRACTS</td>
<td>ZZ,ZZZ,ZZZ,ZZZ.99</td>
<td>ZZ,ZZZ,ZZZ,ZZZ.99</td>
<td>ZZ,ZZZ,ZZZ,ZZZ.99</td>
</tr>
<tr>
<td>ENCUMB CLAIMS</td>
<td>ZZ,ZZZ,ZZZ,ZZZ.99</td>
<td>ZZ,ZZZ,ZZZ,ZZZ.99</td>
<td>ZZ,ZZZ,ZZZ,ZZZ.99</td>
</tr>
<tr>
<td>UNENC CASH BAL</td>
<td>ZZ,ZZZ,ZZZ,ZZZ.99</td>
<td>ZZ,ZZZ,ZZZ,ZZZ.99</td>
<td>ZZ,ZZZ,ZZZ,ZZZ.99</td>
</tr>
<tr>
<td>NET CASH</td>
<td>ZZ,ZZZ,ZZZ,ZZZ.99</td>
<td>ZZ,ZZZ,ZZZ,ZZZ.99</td>
<td>ZZ,ZZZ,ZZZ,ZZZ.99</td>
</tr>
<tr>
<td>S/T INVESTMENTS</td>
<td>ZZ,ZZZ,ZZZ,ZZZ.99</td>
<td>ZZ,ZZZ,ZZZ,ZZZ.99</td>
<td>ZZ,ZZZ,ZZZ,ZZZ.99</td>
</tr>
<tr>
<td>UNINVEST CASH BAL</td>
<td>ZZ,ZZZ,ZZZ,ZZZ.99</td>
<td>ZZ,ZZZ,ZZZ,ZZZ.99</td>
<td>ZZ,ZZZ,ZZZ,ZZZ.99</td>
</tr>
</tbody>
</table>
contract encumbrances will reflect a 'N/A' (not applicable), because these amounts do not affect the available appropriation balance for these appropriation types. The available balance for appropriation types C (Federal CIP), E (State Operating Appropriations), F (Federal Operating Appropriations), or 6 (Operating Appropriation) represent the amount of appropriation which is available for encumbrances and/or expenditures. 'N/A' will be reflected in the allotment field, because these appropriation types have no allotments and are controlled at the appropriation level. All fields will reflect 'N/A' if the appropriation type is D (Revolving) or 3 (Operating Trust), because these appropriation types are subject to cash controls only.

The financial balances displayed for Section 1 are:

- **NET APPRNS** - the original appropriation amount, net of restrictions, lapses, transfers, and continuing appropriations;

- **ALLOTMENTS** - the cumulative balance of all continuing quarterly and other allotments posted, net of any reversions and transfers;

- **EXPENDITURES** - the balance of expenditures posted to the appropriation account;

- **ENCUMB CONTRACTS** - the outstanding balance of contract encumbrances posted to the appropriation account;

- **ENCUMB CLAIMS** - the outstanding balances of claims encumbrances posted to the appropriation account; and

- **AVAILABLE BALANCE** - the available appropriation balance computed by subtracting the applicable amounts from the NET APPRNS balance.

The purpose of the second section is to reflect the cash balance available for expenditures, claims and/or contract encumbrances for appropriation types (A, B, C, D, E, F, 2, 3, and 5) which are subject to cash controls. What is reflected as cash balance available for expenditures and/or encumbrances is dependent on whether the appropriation type involved requires cash before contracts and/or claims encumbrances can be recorded. For example, accounts classified as appropriation types 2 and E require cash to only record contract...
encumbrances, whereas accounts classified as appropriation types B, D, 3, and 5 require cash for both contract and claims encumbrances. Appropriation types A, C, and F do not require cash for encumbrances.

The financial balance displayed for Section 2 are:

- CASH - the balance of cash net of cash transfers;
- EXPENDITURES - the balance of expenditures posted to the appropriation account;
- ENCUMB CONTRACTS - the outstanding balance of contract encumbrances posted to the appropriation account;
- ENCUMB CLAIMS - the outstanding balance of claims encumbrances posted to the appropriation account; and
- UNENC CASH BAL - the available balance computed by subtracting the applicable amounts from the CASH balance.

The purpose of the third section is to reflect the cash available for short-term investments for appropriation types subject to cash controls. The financial balances displayed in Section 3 are:

- NET CASH - the balance of cash, net of cash transfers, and expenditures;
- S/T INVESTMENTS - the outstanding balance of short-term investments posted to the appropriation account; and
- UNINVEST CASH BAL - the available balance computed by subtracting the short-term investments from the NET CASH balance.

Should any of the sections not apply to a particular appropriation type, then 'N/A' will be displayed across all amount fields. For example, if the appropriation type of the account is 1, 4, 6, or G, then Sections 2 and 3 will not be applicable and will display 'N/A' because appropriation types 1, 4, 6, or G are not subject to cash controls.

Financial balances are displayed for the current month, prior month, and prior year.
Allotment Shadow File

Allotment status information for appropriation types 1, 2, 4, 5, A, B, and G is provided on-line through the Allotment Shadow File inquiry screen. No allotment file information is provided for appropriation types which do not record allotments. This screen is accessed by entering function '61' on the FAMIS Master Menu. The Allotment Shadow File inquiry screen format is illustrated in Exhibit IX-5.

The screen prompts for entry of the file control key consisting of the Appropriation Symbol and Allotment Category. A partial or complete control key may be entered to access a record. As illustrated in Exhibit IX-5, informational data such as a series of date fields and control indicators are displayed with each record.

The financial balances displayed on the screen are summarized balances for the master file record. The balances displayed are:

- NET ALLOTMENTS - the balance of allotments awarded, net of reversions, transfers, and restrictions. If allotments are awarded on a quarterly basis, only the quarterly allotments currently available will be included in the computation;
- EXPENDITURES - the balance of expenditures posted to the allotment account;
- ENCUMBRANCE CONTRACTS - the outstanding balance of contract encumbrances posted to the allotment account;
- ENCUMBRANCE CLAIMS - the outstanding balance of claims encumbrances posted to the allotment account; and
- AVAILABLE BALANCE - the available allotment balance computed by subtracting expenditures, contract encumbrances, and claims encumbrances from the net allotment balance.
EXHIBIT IX-5

ALLOTMENT SHADOW FILE INQUIRY SCREEN

ALLOTMENT SHADOW FILE INQUIRY

ENTER FUNCTION: X (S=START READ, N=NEXT RECORD, P=PREVIOUS RECORD, C=CLEAR)

DEPT: XX  FUND: X  FY: XX  APPN: XXX  AL-CATEGORY: XX

DIV: XX STOP-DATE: MMDDYY OVER-EXPEND-DATE: MMDDYY CREATE-DATE: MMDDYY

<table>
<thead>
<tr>
<th>NET ALLOTMENTS:</th>
<th>CURR MO CUMM-TO-DATE</th>
<th>CURR MO BEG BAL</th>
<th>PREV YEAR TOTAL</th>
</tr>
</thead>
<tbody>
<tr>
<td>ZZ,ZZZ,ZZZ,ZZZ.99</td>
<td>ZZ,ZZZ,ZZZ,ZZZ.99</td>
<td>ZZ,ZZZ,ZZZ,ZZZ.99</td>
<td>ZZ,ZZZ,ZZZ,ZZZ.99</td>
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<td>ZZ,ZZZ,ZZZ,ZZZ.99</td>
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<td>ZZ,ZZZ,ZZZ,ZZZ.99</td>
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<td>AVAILABLE BALANCE:</td>
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<td>ZZ,ZZZ,ZZZ,ZZZ.99</td>
<td>ZZ,ZZZ,ZZZ,ZZZ.99</td>
</tr>
</tbody>
</table>

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XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX XXXXXXXXXXXXXXXXXXXXXXXXXXX XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX

IX-24 JUN 1 1988
Financial balances are displayed for the current month, prior month, and prior year.

Contract Ledger Shadow File

The status of individual contract ledger documents may be displayed on-line through the Contract Ledger Shadow File inquiry screen. This screen is accessed by entering function '62' on the FAMIS Master Menu. The Contract Ledger Shadow File inquiry screen format is illustrated in Exhibit IX-6.

The Contract Ledger Shadow File inquiry screen is provided for inquiry by central accounting personnel. The screen prompts for entry of the file control key consisting of the Contract Number and Suffix. As illustrated in Exhibit IX-6, informational as well as financial data are displayed for each contract record. The informational elements include the accounting classification data, vendor information, and a series of date fields.

The financial balances displayed on the screen are the same as those contained in the master file record. The balances displayed are:

- CONTRACT ENCUMBRANCE - the original contract encumbrance amount, net of any adjustments;
- LIQUIDATION AMOUNT - the amount of any encumbrance liquidations posted;
- ENC EXPENDITURES - the cumulative balance of expenditures charged to the contract that had been previously encumbered;
- DIRECT EXPENDITURES - the cumulative balance of direct expenditures charged to the contract;
- AMOUNT RETAINED - the retained balance; and
- CONTRACT ENCUMBRANCE - the balance of the contract encumbrance currently outstanding, computed by combining the Contract Encumbrance and Liquidation Amount balances.

These financial balances are displayed for the current month, prior month, and prior year.
**EXHIBIT IX-6**

**CONTRACT LEDGER SHADOW FILE INQUIRY SCREEN**

**CONTRACT LEDGER SHADOW FILE INQUIRY**

ENTER FUNCTION: X (S=START READ, N=NEXT RECORD, P=PREVIOUS RECORD, C=CLEAR)

CONTRACT-NO: XXXXXXX X

REV-END DATE: MMDDYY CREATE-DATE: MMDDYY LAST-UPDATE: MMDDYY CLSDT: MMDDYY
VENDOR-NO: XXXXXXXX XX VENDOR-NAME: XXXXXXXXXXXXXXXXXXXXXXXXXXXXXX
ASSIGNEE-NO: XXXXXXXX XX ASSIGNEE-NAME: XXXXXXXXXXXXXXXXXXXXXXXXXXXXXX

<table>
<thead>
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<th>CONTRACT ENCUMBRANCES:</th>
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<th>ZZ,ZZZ,ZZZ,ZZZ.99</th>
</tr>
</thead>
<tbody>
<tr>
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<td>ZZ,ZZZ,ZZZ,ZZZ.99</td>
<td>ZZ,ZZZ,ZZZ,ZZZ.99</td>
</tr>
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<td>ZZ,ZZZ,ZZZ,ZZZ.99</td>
<td>ZZ,ZZZ,ZZZ,ZZZ.99</td>
</tr>
<tr>
<td>DIRECT EXPENDITURES:</td>
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<td>ZZ,ZZZ,ZZZ,ZZZ.99</td>
<td>ZZ,ZZZ,ZZZ,ZZZ.99</td>
</tr>
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<td>AMOUNT RETAINED:</td>
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<td>ZZ,ZZZ,ZZZ,ZZZ.99</td>
<td>ZZ,ZZZ,ZZZ,ZZZ.99</td>
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<td>ZZ,ZZZ,ZZZ,ZZZ.99</td>
<td>ZZ,ZZZ,ZZZ,ZZZ.99</td>
</tr>
</tbody>
</table>

XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX XXXXXXXXXXXXXXXXXXXXXXXXXXX XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX
XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX XXXXXXXXXXXXXXXXXXXXXXXXXXX XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX

IX-26
Document Shadow File

The status of individual claims encumbrance document records may be displayed on-line through the Document Shadow File inquiry screen. This screen is accessed by entering function '63' on the FAMIS Master Menu. The Document Shadow File inquiry screen format is illustrated in Exhibit IX-7.

The Document Shadow File inquiry screen may be accessed by both central accounting and departmental personnel. Once the screen is displayed, the user is prompted for entry of the file control key, consisting of the Department Code, Document Number and Suffix, and General Ledger Account. As illustrated in Exhibit IX-7, informational as well as financial data is displayed for each document record. The informational elements include the accounting classification data, vendor information, and a series of date fields.

The financial balances displayed on the screen are the same as those contained in the master file record. The balances displayed are:

- DOCUMENT AMOUNT - the original document amount net of any adjustments;
- LIQUIDATION AMOUNT - the amount of any encumbrance liquidations posted;
- PAYMENT AMOUNT - the balance of expenditures posted to the encumbrance record;
- RETENTIONS - the balance being retained; and
- DOCUMENT BALANCE - the document balance computed by combining the Document Amount and Liquidation Amount.

These financial balances are displayed for the current month, prior month, and prior year.

Vendor Payment Shadow File

Payment transactions processed referencing a single vendor may be displayed on-line through the Vendor Payment Shadow File inquiry screen. This
EXHIBIT IX-7

DOCUMENT SHADOW FILE INQUIRY SCREEN

DOCUMENT SHADOW FILE INQUIRY

ENTER FUNCTION: X (S=START READ, N=NEXT RECORD, P=PREVIOUS RECORD, C=CLEAR)

DEPT: XX DOCUMENT-NO: XXXXXXXX XX GL-ACCT: XXX

FUND: X FY: XX APPN: XXX SRCE/OBJ: XXXX FUND-DETAIL: XX
PGM-LVL-V: XX PGM-LVL-VI: XX PGM-LVL-VII: XX
PROJ-TYPE: X PROJ: XXXXXX XX DOC-DATE: MMDDYY CREATE-DATE: MMDDYY
FM: XX LAST-UPDATE: MMDDYY VENDOR-NO: XXXXXXXXX XX CLSDT: MMDDYY
VENDOR-NAME: XXXXXXXXXXXXXXXXXXXXXXXXXXXX

DOCUMENT AMOUNT: ZZ,ZZZ,ZZZ,ZZZ.99 ZZ,ZZZ,ZZZ,ZZZ.99 ZZ,ZZZ,ZZZ,ZZZ.99
LIQUIDATION AMOUNT: ZZ,ZZZ,ZZZ,ZZZ.99 ZZ,ZZZ,ZZZ,ZZZ.99 ZZ,ZZZ,ZZZ,ZZZ.99
PAYMENT AMOUNT: ZZ,ZZZ,ZZZ,ZZZ.99 ZZ,ZZZ,ZZZ,ZZZ.99 ZZ,ZZZ,ZZZ,ZZZ.99
RETENTION AMOUNT: ZZ,ZZZ,ZZZ,ZZZ.99 ZZ,ZZZ,ZZZ,ZZZ.99 ZZ,ZZZ,ZZZ,ZZZ.99
DOCUMENT BALANCE: ZZ,ZZZ,ZZZ,ZZZ.99 ZZ,ZZZ,ZZZ,ZZZ.99 ZZ,ZZZ,ZZZ,ZZZ.99

XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX
XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX
screen is accessed by entering function '64' on the FAMIS Master Menu. The Vendor Payment Shadow File inquiry screen format is illustrated in Exhibit IX-8.

The Vendor Payment Shadow File inquiry screen may be accessed by both central accounting and departmental fiscal personnel. Unlike the other inquiry screens that display a single record at a time, this screen displays up to thirteen payment records for the vendor specified. The payment records are displayed based on the Department Code and Vendor Number and Suffix entered or Department Code and Vendor Name entered (if Vendor Number and Suffix are "blank") on the top portion of the screen. If the vendor number or name entered does not exist on the file, payment data for the next vendor number or name will be displayed.

Each payment record displayed is uniquely identified by its Department Batch Reference Number and Comptroller Voucher Number (first six positions). Additional data from the transaction displayed on the screen includes the Transaction Code, Invoice Number, Aging Start Date, Warrant Number, Warrant Date, Reference Document Number, and Amount.

**Warrant Writing/Error Status Shadow File**

The status of a given Summary Warrant Voucher that is on either or both the warrant writing file and/or the error file may be displayed through the Warrant Writing/Error Status Shadow File inquiry screen. This screen is accessed by entering function '65' on the FAMIS Master Menu. The Warrant Writing/Error Status Shadow File inquiry screen format is illustrated in Exhibit IX-9.

The Warrant writing/Error Status Shadow File inquiry screen may be accessed by both central accounting and departmental personnel. Once the
EXHIBIT IX-8

VENDOR PAYMENT SHADOW FILE INQUIRY SCREEN

VENDOR PAYMENT SHADOW FILE INQUIRY

ENTER FUNCTION: X (S=START READ, N=NEXT RECORD, P=PREVIOUS RECORD, C=CLEAR)

DEPARTMENT: XX

VENDOR-NUMBER/SUFFIX: XXXXXXXXXXX XX

VENDOR-NAME: XXXXXXXXXXXXXXXXXXXXXXXXXXXX

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<th>INVOICE NO</th>
<th>ASD</th>
<th>WARR NO</th>
<th>WAR DT</th>
<th>REF DOC#</th>
<th>PAMT AMOUNT</th>
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<td>XXXXXXXX</td>
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<td>XXXXXXX</td>
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</tr>
<tr>
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<td>MMDDYY</td>
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</tr>
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<td>XXXXXXXX</td>
<td>MMDDYY</td>
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<tr>
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</tbody>
</table>
WARRANT WRITING/ERROR STATUS SHADOW FILE INQUIRY SCREEN

WARRANT WRITING/ERROR FILE INQUIRY SCREEN

ENTER FUNCTION: X (I=INQUIRY, C=CLEAR SCREEN)

DEPARTMENT: XX

<table>
<thead>
<tr>
<th>DEPT REF NO</th>
<th>COMPTROLLER VOUCHER NO</th>
<th>WW S</th>
<th>---------MESSAGE---------</th>
<th>-SPD--</th>
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</thead>
<tbody>
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<td>X</td>
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<tr>
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<td>X</td>
<td>XXXXXXXXXXXXXXXXXXXXXXXX</td>
<td>MMDDYY</td>
</tr>
</tbody>
</table>

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 XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX

IX-31
screen is displayed, the user is prompted for entry of one of the two different keys, consisting of either Department and Department Batch Reference Number or Department, Comptroller's Voucher Number, and Warrant Writing Subfund.

As illustrated in Exhibit IX-9, informational elements displayed are the Department Code, Department Batch Reference Number, Comptroller's Voucher Number, Warrant Writing Subfund, and Message Area. The status of the header record and the detail record(s) of the given Summary Warrant Voucher will be displayed in the Message Area. The Scheduled Payment Date field is reserved for future use.

**Contract Ledger Detail Transaction Shadow File**

Contract transactions for a contract number may be displayed on-line through the Contract Ledger Detail Transaction Shadow File inquiry screen. This screen is accessed by entering function '66' on the FAMIS Master Menu. The Contract Ledger Detail Transaction Shadow File inquiry screen format is illustrated in Exhibit IX-10.

The Contract Ledger Detail Transaction Shadow File screen is provided for inquiry by central accounting personnel. Once the screen is displayed, the user is prompted for entry of the contract number. This screen displays up to thirteen contract transactions at one time; these contract records must have a processing date that is within the ninety (90) days of the current date. If no transactions less than 90 days are found, the system will display the last transaction on file for the contract. As illustrated in Exhibit IX-10, informational elements displayed are the Department Name, the Vendor Number and Name, and the Assignee Number and Name.

**EXHIBIT IX-10**

**CONTRACT LEDGER DETAIL TRANSACTION SHADOW FILE INQUIRY SCREEN**

**CONTRACT LEDGER DETAIL TRANSACTION FILE INQUIRY**

**ENTER FUNCTION:** X (F=FIRST PG,S=START RD,N=NEXT PG,B=PREV PG,P=PRINT,C=CLEAR)

**CONTRACT NO:** XXXXXXXX XX **DEPARTMENT:** XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX

**VENDOR NO/SFX:** XXXXXXXX XX **VENDOR NAME:** XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX

**ASSIGN NO/SFX:** XXXXXXXX XX **ASSIGN NAME:** XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX

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<td>XXXXXXXX</td>
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<td>XXX</td>
<td>XXXXXXXXXX.99</td>
<td>X</td>
<td>XXXXXXXXXX.99</td>
</tr>
</tbody>
</table>
Payment Date. The Current Processing Date and Batch Type are not displayed on the Contract Ledger Detail Transaction Screen. In addition, the screen will display the Document Date, Comptroller Voucher Number, Appropriation Account Code, Transaction Amount, and Contract Balance.

**Department Appropriation/Cash Shadow File**

Departmental personnel are provided on-line access to their appropriation and cash balances through the Department Appropriation/Cash Shadow File inquiry screen. This screen is displayed by entering function '70' on the FAMIS Master Menu. The Department Appropriation/Cash Shadow File inquiry screen is displayed in Exhibit IX-11. The screen displays the various control key elements that uniquely identify an appropriation as well as related informational elements such as the appropriation type, last update date, and lapse date.

The financial balances displayed on the screen are in three sections and are summarized balances from the master file records. The purpose of the first section is to reflect the available appropriation balance. The available balance for appropriation types A (Federal Operating Allotment), B (State CIP Allotment), G (General CIP), I (Operating Allotment), 2 (State Operating Allotment), 4 (G.O. Bonds), or 5 (Revenue Bonds) represents the amounts which have not been allotted. The amount fields for expenditures, claims, and contract encumbrances will reflect a 'N/A' (not applicable), because these amounts do not affect the available appropriation balance for these appropriation types. The available balance for appropriation types C (Federal CIP), E (State Operating Appropriations), F (Federal Operating Appropriations), or 6 (Operating Appropriation) represents the amount of appropriation which is available for encumbrances and/or expenditures. 'N/A' will be reflected in the allotment field, because these appropriation types
EXHIBIT IX-11

DEPARTMENT APPROPRIATION AND CASH SHADOW FILE INQUIRY SCREEN

DEPARTMENT APPROPRIATION AND CASH SHADOW FILE INQUIRY

ENTER FUNCTION: X (S=START READ, N=NEXT RECORD, P=PREVIOUS RECORD, C=CLEAR)


<table>
<thead>
<tr>
<th>Description</th>
<th>CURR MO CUMM-TO-DATE</th>
<th>CURR MO BEG BAL</th>
<th>PREV YEAR TOTAL</th>
</tr>
</thead>
<tbody>
<tr>
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<td>ZZ,ZZZ,ZZZ,ZZZ.99</td>
<td>ZZ,ZZZ,ZZZ,ZZZ.99</td>
</tr>
<tr>
<td>ALLOTMENTS</td>
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<tr>
<td>ENCUMB CLAIMS</td>
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<td>ENCUMB CONTRACTS</td>
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<td>ZZ,ZZZ,ZZZ,ZZZ.99</td>
<td>ZZ,ZZZ,ZZZ,ZZZ.99</td>
</tr>
<tr>
<td>ENCUMB CLAIMS</td>
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<tr>
<td>UNENC CASH BAL</td>
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<td>ZZ,ZZZ,ZZZ,ZZZ.99</td>
</tr>
<tr>
<td>NET CASH</td>
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<td>S/T INVESTMENTS</td>
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</table>

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IX-35

JUN 1 1988
have no allotments and are controlled at the appropriation level. All fields will reflect 'N/A' if the appropriation type is D (Revolving) or 3 (Operating Trust), because these appropriation types are subject to cash controls only.

The financial balances displayed for Section 1 are:

- NET APPRNS - the original appropriation amount, net of restrictions, lapses, transfers, and continuing appropriations;
- ALLOTMENTS - the cumulative balance of all continuing quarterly and other allotments posted, net of any reversions and transfers;
- EXPENDITURES - the balance of expenditures posted to the appropriation account;
- ENCUMB CONTRACTS - the outstanding balance of contract encumbrances posted to the appropriation account;
- ENCUMB CLAIMS - the outstanding balance of claims encumbrances posted to the appropriation account; and
- AVAILABLE BALANCE - the available appropriation balance computed by subtracting the applicable amounts from the NET APPRNS balance.

The purpose of the second section is to reflect the cash balance available for expenditures, claims and/or contract encumbrances for appropriation types (A, B, C, D, E, F, 2, 3, and 5) which are subject to cash controls. What is reflected as cash balance available for expenditures and/or encumbrances is dependent on whether the appropriation type involved requires cash before contracts and/or claims encumbrances can be recorded. For example, accounts classified as appropriation types 2 and E require cash to only record contract encumbrances, whereas accounts classified as appropriation types B, D, 3, and 5 require cash for both contract and claims encumbrances. Appropriation types A, C, and F do not require cash for encumbrances.

The financial balances displayed for Section 2 are:

- CASH - the balance of cash net of cash transfers;
- EXPENDITURES - the balance of expenditures posted to the appropriation account;
- ENCUMB CONTRACTS - the outstanding balance of contract encumbrances posted to the appropriation account;
o ENCUMB CLAIMS — the outstanding balance of claims encumbrances posted to the appropriation account; and

o UNENC CASH BAL — the available balance computed by subtracting the applicable amounts from the CASH balance.

The purpose of the third section is to reflect the cash available for short-term investments for appropriation types subject to cash controls. The financial balances displayed in Section 3 are:

o NET CASH — the balance of cash, net of cash transfers and expenditures;

o S/T INVESTMENTS — the outstanding balance of short-term investments posted to the appropriation account; and

o UNINVEST CASH BAL — the available balance computed by subtracting the short-term investments from the NET CASH balance.

Should any of the sections not apply to a particular appropriation type, then 'N/A' will be displayed across all amount fields. For example, if the appropriation type of the account is 1, 4, 6, or G, then Sections 2 and 3 will not be applicable and will display 'N/A' because appropriation types 1, 4, 6, or G are not subject to cash controls.

Financial balances are displayed for the current month, prior month, and prior year.

Allotment Department Shadow File

The status of internal departmental allotments may be determined on-line through the Allotment Department Shadow File inquiry screen. This screen is accessed by entering function '71' on the FAMIS Master Menu. The Allotment Department Shadow File inquiry screen is illustrated in Exhibit IX-12.

The Allotment Department Shadow File inquiry screen prompts for entry of control key data consisting of department, fund, fiscal year, and appropriation. A partial or complete control key may be entered to access a
**EXHIBIT IX-12**

**ALLOTMENT DEPARTMENT SHADOW FILE INQUIRY**

**ALLOTMENT DEPARTMENT FILE INQUIRY**

ENTER FUNCTION: X (S=START N=NEXT P=PREVIOUS C=CLEAR PF5=CC,DA LOOK UP)

DEPT: XX  FUND: X  YEAR: XX  APPN: XXX  AL-CATEGORY: XX
COST CENTER: XXXX  DIV: XX  BR: XX  SEC: XX  UNIT: XX
PROJECT/PH: XXXXXXXX  XX  MAJ/MIN OBJECT: XXXX


<table>
<thead>
<tr>
<th>NET ALLOTMENTS:</th>
<th>CURR MO CUMM-TO-DATE</th>
<th>CURR MO BEG BAL</th>
<th>PREV YEAR TOTAL</th>
</tr>
</thead>
<tbody>
<tr>
<td>ZZ,ZZZ,ZZZ,ZZZ.99</td>
<td>ZZ,ZZZ,ZZZ,ZZZ.99</td>
<td>ZZ,ZZZ,ZZZ,ZZZ.99</td>
<td>ZZ,ZZZ,ZZZ,ZZZ.99</td>
</tr>
</tbody>
</table>

| EXPENDITURES:    | ZZ,ZZZ,ZZZ,ZZZ.99    | ZZ,ZZZ,ZZZ,ZZZ.99 | ZZ,ZZZ,ZZZ,ZZZ.99 |
| ENCUMBRANCE CONTRACTS: | ZZ,ZZZ,ZZZ,ZZZ.99 | ZZ,ZZZ,ZZZ,ZZZ.99 | ZZ,ZZZ,ZZZ,ZZZ.99 |
| ENCUMBRANCE CLAIMS: | ZZ,ZZZ,ZZZ,ZZZ.99 | ZZ,ZZZ,ZZZ,ZZZ.99 | ZZ,ZZZ,ZZZ,ZZZ.99 |
| AVAILABLE BALANCE: | ZZ,ZZZ,ZZZ,ZZZ.99 | ZZ,ZZZ,ZZZ,ZZZ.99 | ZZ,ZZZ,ZZZ,ZZZ.99 |

XXXXXXXXXXXXXXXXXXXXXXXXX XXXXXXXXXXXXXXXXXXXXXXXXXXXX XXXXXXXXXXXXXXXXXXXXXXXXXXXX XXXXXXXXXXXXXXXXXXXXXXXXXXXX

XXXXXXXXXXXXXXXXXXXXXXXXX XXXXXXXXXXXXXXXXXXXXXXXXXXXX XXXXXXXXXXXXXXXXXXXXXXXXXXXX XXXXXXXXXXXXXXXXXXXXXXXXXXXX
record. If a partial key is entered, data elements must be entered consecutively. As illustrated in Exhibit IX-12, informational data such as a series of date fields and control indicators are displayed with each record.

In the process of reviewing the status of internal departmental allotments, the Allotment Department Shadow File inquiry screen may also be used to retrieve the applicable informational elements associated with the cost center and/or department activity table(s). The inquiry function PF5 may be used to retrieve this information before accessing records on the department's Allotment Department Shadow File.

The PF5 function facilitates the use of the inquiry screen by providing departments with an easier means of accessing the status of their internal allotment records. Departmental personnel will not have to input the cost center and department activity informational elements, since this information may be automatically retrieved by the system.

The control key(s) of the cost center and/or department activity table(s) must be completely entered before the informational elements may be retrieved. The cost center (CC) control key consists of department, cost center, and year. The department activity (DA) control key consists of department, activity, and year.

After entering the control key(s), depress the function key 'PF5'. If both the cost center and department activity records are found on their corresponding tables, the required informational elements are retrieved. If the cost center record is not found, the error message 'CC LOOK UP RECORD NOT FOUND' will be displayed in the error message field. If the department activity record is not found, the error message 'DA LOOK UP RECORD NOT FOUND' will be displayed.
If both the cost center and department activity records are not found, the error message 'REQUIRED INFORMATION MISSING FOR LOOK UP FUNCTION' will be displayed.

The financial balances displayed on the screen are summarized balances from the master file record. The balances displayed are:

- **NET ALLOTMENTS** - the balance of allotments awarded, net of reversions, investments, transfers, and restrictions. If allotments are awarded on a quarterly basis, only the quarterly allotments currently available will be included in the computation;

- **EXPENDITURES** - the balance of expenditures posted to the allotment account;

- **ENCUMBRANCE CONTRACTS** - the outstanding balance of contract encumbrances posted to the allotment account;

- **ENCUMBRANCE CLAIMS** - the outstanding balance of claims encumbrances posted to the allotment account; and

- **AVAILABLE BALANCE** - the available allotment balance computed by subtracting expenditures, contract encumbrances, and claims encumbrances from the net allotment balance.

These balances will reflect all transactions posted through the preliminary edit process.

**Project Shadow File**

Project status information may be determined on-line through the Project Shadow File inquiry screen. This screen is accessed by entering function '72' on the FAMIS Master Menu. The Project Shadow File inquiry screen is illustrated in Exhibit IX-13.

Once the inquiry screen is displayed, the user is prompted to enter the control key information. A partial or complete control key may be entered to access a record. The control key information, consisting of Department, Division, Project Number and Phase, and Source or Object should be entered.
**EXHIBIT IX-13**

**PROJECT SHADOW DEPARTMENT FILE INQUIRY**

**PROJECT DEPARTMENT FILE INQUIRY**

ENTER FUNCTION: X (S=START READ, N=NEXT RECORD, P=PREVIOUS RECORD, C=CLEAR)

DEPT: XX  DIV: XX  PROJECT: XXXXXX  SRCE/OBJ: XXXX

CREATE-DATE: MMDDYY  LAST-UPDATE: MMDDYY

<table>
<thead>
<tr>
<th></th>
<th>CURR MO CUMM-TO-DATE</th>
<th>CURR MO BEG BAL</th>
<th>PREV YEAR TOTAL</th>
</tr>
</thead>
<tbody>
<tr>
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<td>ZZ,ZZZ,ZZZ,ZZZ.99</td>
<td>ZZ,ZZZ,ZZZ,ZZZ.99</td>
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<td>EXPENDITURES:</td>
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<td>ZZ,ZZZ,ZZZ,ZZZ.99</td>
<td>ZZ,ZZZ,ZZZ,ZZZ.99</td>
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<td>REVENUE ATTAINMENTS:</td>
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<td>ZZ,ZZZ,ZZZ,ZZZ.99</td>
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<td>ALLOTMENTS:</td>
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<td>ZZ,ZZZ,ZZZ,ZZZ.99</td>
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<tr>
<td>PROJECT BALANCE:</td>
<td>ZZ,ZZZ,ZZZ,ZZZ.99</td>
<td>ZZ,ZZZ,ZZZ,ZZZ.99</td>
<td>ZZ,ZZZ,ZZZ,ZZZ.99</td>
</tr>
</tbody>
</table>

XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX
consecutively from left to right. As illustrated in Exhibit IX-13, informational data such as a series of date fields and control indicators are displayed with each record.

The amount of financial data displayed on the screen for each project file record will depend on how the department sets the various project file posting indicators. For example, if control is exercised at the object code level and receipts are posted by source, revenue, and expenditure, information cannot be displayed on the screen simultaneously. If control is exercised at the project level, however, all financial balances may be displayed on a single screen. The financial balances displayed are:

- NET APPROPRIATION - the project appropriation balance, net of restrictions, lapses, transfers, cash transfer loans, and invested balances;
- EXPENDITURES - the balance of expenditures posted to the project;
- ENCUMBRANCE CONTRACTS - the outstanding balance of contract encumbrances posted to the project;
- ENCUMBRANCE CLAIMS - the outstanding balance of claims encumbrances posted to the project;
- REVENUE ATTAINMENTS - the balance of project revenues;
- ALLOTMENTS - the balance of allotments awarded, net of transfers and reversions; and
- PROJECT BALANCE - the available project allotment balance computed by subtracting expenditures, contract encumbrances, and claims encumbrances from the allotment balance.

These balances will reflect all transactions processed through the preliminary edit process.
Departmental Contract Ledger Shadow File

The status of individual contract suffix balances sorted by contract category may be displayed through the Departmental Contract Ledger Shadow File inquiry screen. This screen is accessed by entering function '73' on the FAMIS Master Menu. The Departmental Contract Ledger Shadow File inquiry screen format is illustrated in Exhibit IX-14.

The Departmental Contract Shadow File inquiry screen is provided for inquiry by both departmental and central accounting personnel. The screen prompts for entry of the file control key consisting of Department and Contract Number. It should be noted that for departmental personnel, the Department Code field will be protected from input and automatically filled-in with the applicable Department Code. As illustrated in Exhibit IX-14, informational as well as financial data are displayed for each suffix assigned to a contract, and related suffixes will be sorted by the optional contract category indicator field on the Contract Ledger Table, if required. The informational elements include vendor number/suffix, assignee number/suffix, appropriation account, and date last updated.

The financial balances displayed on the screen are the same as those contained on the master file record. The balances displayed are:

- ORIG ENCUMB - the original contract encumbrance amount;
- ENCUMB ADJ - the net of any contract encumbrance adjustments;
- EXPENDITURES - the cumulative balance of expenditures charged to the contract;
- LIQUIDATIONS - the cumulative amount of liquidations posted;
- RETAINAGES - the retainage balances; and
- AVAILABLE BAL - the balance of the contract encumbrance currently outstanding, computed by combining the Original Encumbrance, Encumbrance Adjustments, and Liquidation Amount Balances.
EXHIBIT IX-14

DEPARTMENTAL CONTRACT LEDGER SHADOW FILE INQUIRY

ENTER FUNCTION: _ (S=START READ, N=NEXT RECORD, P=PREVIOUS RECORD, C=CLEAR)

DEPT: XX

<table>
<thead>
<tr>
<th>C SFX</th>
<th>VEN/ASN NO SFX</th>
<th>F YR</th>
<th>APP</th>
<th>ORIG ENCUMB</th>
<th>EXPENDITURES</th>
<th>RETAINAGES</th>
<th>LEVY NO SFX</th>
<th>UPDATE</th>
<th>ENCUMB ADJ</th>
<th>LIQUIDATIONS</th>
<th>AVAILABLE BAL</th>
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<tbody>
<tr>
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<td>X XX</td>
<td>XXX</td>
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<td></td>
<td></td>
<td></td>
<td>MM/DD/YY</td>
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<td></td>
</tr>
<tr>
<td>X XX</td>
<td>XXXXXXXXXX XX</td>
<td>X XX</td>
<td>XXX</td>
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<td></td>
<td></td>
<td></td>
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</tr>
<tr>
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<td>X XX</td>
<td>XXX</td>
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<td></td>
<td></td>
<td></td>
<td>MM/DD/YY</td>
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<tr>
<td>X XX</td>
<td>XXXXXXXXXX XX</td>
<td>X XX</td>
<td>XXX</td>
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<td></td>
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<td></td>
<td>MM/DD/YY</td>
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<td></td>
<td></td>
</tr>
</tbody>
</table>

IX-44

JUN 1 1988
These financial balances reflect the most current balances posted in the files and are shown at both the detail (contract number/suffix) and summary (contract number) level.

Project/Grant Cash Status Shadow File

The status of project/grant balance by appropriation may be displayed through the Project/Grant Cash Status Shadow File inquiry screen. This screen is accessed by entering function '74' on the FAMIS Master Menu. The Project/Grant Cash Status Shadow File inquiry screen format is illustrated in Exhibit IX-15.

Once the inquiry screen is displayed, the user is prompted to enter the control key information. A partial or complete control key may be entered to access a record. The control key information, consisting of Department, Project Number and Phase, Fund, Year, and Appropriation should be entered consecutively from left to right on the applicable line.

The amount of financial data displayed on the screen represents a summary of records in the project file by appropriation. Additionally, the financial balances displayed on the screen will depend on how the department elects to update the various financial accumulators in the project file. The financial balances displayed are:

- STATE ALLOTMENTS - the balances of allotments awarded by project, net of reversions, restrictions, and transfers. If allotments are awarded on a quarterly basis, only the quarterly allotments currently awarded will be included in the computation;

- EXPENDITURES - the balance of expenditures posted to the project by appropriation;

- CONTRACT ENCUMBRANCES - the outstanding balance of contract encumbrances posted to the project by appropriation;

- CLAIMS ENCUMBRANCES - the outstanding balances of claims encumbrances posted to the project by appropriation;
EXHIBIT IX-15

PROJECT/GRANT CASH STATUS SHADOW FILE

PROJECT/GRANT CASH STATUS INQUIRY SCREEN

ENTER FUNCTION: _ (S=START RD, N=NEXT RECORD, P=PREVIOUS, C=CLEAR)

DEPARTMENT: XX

PROJECT/PH: XXXXXX XX

FUND: X YEAR: XX APPN: XXX

PROJECT DESCRIPTION: XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX

<table>
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<tr>
<th></th>
<th>CURRENT MONTH TO DATE</th>
<th>PRIOR MONTH TO DATE</th>
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<td>ZZ,ZZZ,ZZZ,ZZZ.99-</td>
<td>ZZ,ZZZ,ZZZ,ZZZ.99-</td>
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<td>EXPENDITURES</td>
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<td>ZZ,ZZZ,ZZZ,ZZZ.99-</td>
<td>ZZ,ZZZ,ZZZ,ZZZ.99-</td>
</tr>
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<td>CONTRACT ENCUMB</td>
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<td>ZZ,ZZZ,ZZZ,ZZZ.99-</td>
<td>ZZ,ZZZ,ZZZ,ZZZ.99-</td>
</tr>
<tr>
<td>CLAIMS ENCUMB</td>
<td>ZZ,ZZZ,ZZZ,ZZZ.99-</td>
<td>ZZ,ZZZ,ZZZ,ZZZ.99-</td>
<td>ZZ,ZZZ,ZZZ,ZZZ.99-</td>
</tr>
<tr>
<td>STATE ALLOT BAL</td>
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<td>ZZ,ZZZ,ZZZ,ZZZ.99-</td>
<td>ZZ,ZZZ,ZZZ,ZZZ.99-</td>
</tr>
<tr>
<td>CASH BALANCE</td>
<td>ZZ,ZZZ,ZZZ,ZZZ.99-</td>
<td>ZZ,ZZZ,ZZZ,ZZZ.99-</td>
<td>ZZ,ZZZ,ZZZ,ZZZ.99-</td>
</tr>
<tr>
<td>GRANT AWARD</td>
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<td>ZZ,ZZZ,ZZZ,ZZZ.99-</td>
<td>ZZ,ZZZ,ZZZ,ZZZ.99-</td>
</tr>
<tr>
<td>GRANT BALANCE</td>
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<td>ZZ,ZZZ,ZZZ,ZZZ.99-</td>
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</tr>
</tbody>
</table>

XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX X XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX
XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX

IX-46
STATE ALLOTMENT BALANCES - the available state allotment balance computed by subtracting expenditures, contract encumbrances, and claims encumbrances from the state allotment balance;

CASH BALANCE - the available cash balance computed by subtracting expenditures from cash equity and cash equity transfer balances;

GRANT AWARD - the balance of project budgets by appropriation; and

GRANT BALANCE - the available project budget balance computed by subtracting expenditures, contract encumbrances, and claims encumbrances from project budget balances.

These balances reflect only those transactions posted to the batch project file.

Department Contract Ledger Detail Shadow File

The most recent transaction details for a given contract may be displayed through the Department Contract Ledger Detail Shadow File inquiry screen. This screen is accessed by entering function '75' on the FAMIS Master Menu and is available for inquiry by both departmental and central accounting personnel. This screen, when used in conjunction with the Department Contract Ledger Shadow File (function '73') and the Department Contract Ledger Report (MBP498), is intended to provide departments with a comprehensive and up-to-date status of their contract encumbrance balances in FAMIS. The format for the Department Contract Ledger Detail Shadow File inquiry screen is illustrated in Exhibit IX-16.

Once the screen is displayed, the user is prompted to enter a file control key consisting of the Department Code and Contract Number. It should be noted that access to detail transactions related to a contract requires a valid control key to be entered, and departmental personnel will be restricted to access only contract information related to their department. This screen
EXHIBIT IX-16
DEPARTMENT CONTRACT LEDGER DETAIL SHADOW FILE INQUIRY

DEPARTMENTAL CONTRACT LEDGER DETAIL TRANSACTION FILE INQUIRY

ENTER FUNCTION; X (F=FIRST PG.S=START RD.N=NEXT PG.B=PREV PG.P=PRINT.C=CLEAR)

| DEPT........: XX | CONTRACT NO.: Xxxxxxxxx |
| AS OF DATE....: MM DD YY | RETAINAGE PCT: XX.xx |
| VENDOR NO/SFX: Xxxxxxxxx xx | VENDOR NAME...: Xxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxx |
| ASSIGN NO/SFX: Xxxxxxxxx xx | ASSIGN NAME...: Xxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxx |

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<th>SF</th>
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<th>DT</th>
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<th>OBJ</th>
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</thead>
<tbody>
<tr>
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<td>XX</td>
<td>BEG BAL</td>
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<td>XXXX</td>
<td>XXXX</td>
<td>XXXXX</td>
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displays up to eleven detail transaction lines at one time (including blank lines to segregate suffixes) which may include one or more of the following detail line types for each suffix:

- **BEGINNING BALANCE** - as of date (CM2) balance of the contract number/suffix;

- **DETAIL ACCOUNTING TRANSACTIONS** (Transaction Status = 'A') - details of transactions that have updated the contract number/suffix since the as of date (31 to 60 days);

- **ERROR FILE TRANSACTIONS** (Transaction Status = 'E') - details of transactions for that contract number/suffix that are currently on the Error File (Note: This is only applicable to departments who have implemented the departmental features of FAMIS);

- **ON-LINE HOLD FILE TRANSACTIONS** (Transaction Status = 'H') - details of transactions for that contract number/suffix that are currently on the On-line Accounting Transaction File (Note: This is only applicable to departments who have implemented the departmental features of FAMIS); and

- **ENDING BALANCE** - ending balance of the contract number/suffix.

As illustrated in Exhibit IX-16, informational elements displayed are: As of Date; Retainage Percentage; Vendor Number/Suffix and Vendor Name; and Assignee Number/Suffix and Assignee Name. Additional data displayed at the detail line level include: Contract Category Indicator; Contract Suffix; Processing Date; Funding Source (F-YR-APP); Object; Cost Center; Project/Phase; Department Activity; Transaction Code; Modifier; DOC/DBNO (Ref Doc No if Contract Input Transaction, DBRN if Summary Warrant Voucher Transaction, and Curr Doc No if any other transaction); Month Pay Date (First three digits of Optional Remittance Data field); Transaction Status (A = Detail Accounting Transaction, 'E' = Error file transaction, and 'H' = On-line Hold File Transaction); and Encumbrance Balance (Beginning and Ending Balance/Transaction Amount).

Detail transaction lines related to a contract are sorted by: contract category; contract suffix; input source (i.e., beginning balance, detail accounting transaction, error file transactions, on-line hold file transaction,
and ending balance); current processing date; batch code ('1' if batch type = 'P', '2' if batch type = 'A', '3' if batch type = 'S', '4' if batch type = 'T', '5' if batch type = 'I', 'J', or '5', and '6' for all other batch types); final pay indicator (Y if modifier = 'F' else space); and transaction code. The input source, batch code, and final pay indicator are not displayed on the screen.

**SUMMARY**

FAMIS supports a large number of user information and processing requirements through the on-line processing module. User personnel may edit accounting transactions on-line at the time of data entry, thereby reducing the number of errors detected during batch processing. Additionally, shadow files may be updated on-line to provide an immediate reporting of appropriation, allotment, and project fund status. The departmental shadow files are created by the preliminary edit process; all other files are created by the standard input, edit, and update processing cycle. These balances are available for on-line inquiry throughout the day. The nine system tables are also available for on-line inquiry throughout the day.