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PTI/APWA EQUIPMENT MANAGEMENT INFORMATION SYSTEM

PROGRAM DOCUMENTATION

EQUIPMENT INVENTORY MODULE

U.S. Department of Housing and Urban Development
Office of Policy Development and Research

1977

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This document is one of a series comprising documentation for the PTI/APWA Equipment Management Information System; a system tailored to the special needs of local governments, developed by Public Technology, Inc. and the American Public Works Association.

The program documentation for the Inventory Modules(there are six modules in the system) describes the module job streams, and explains in detail each program in the module including a program narrative, definitions of switches and flags used, a brief description of the purpose of each program paragraph, and the specifications from which each program was coded.

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PTI/APWA EQUIPMENT MANAGEMENT INFORMATION SYSTEM

COMPUTER PROGRAM DOCUMENTATION

EQUIPMENT INVENTORY MODULE

U.S. Department of Housing and Urban Development
Office of Policy Development and Research
Washington, D.C.

Prepared Under Contract #H-2106R

by

Public Technology, Inc.
1140 Connecticut Avenue, N.W.
Washington, D.C. 20036

1977

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EQUIPMENT INVENTORY MODULE

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SECTION 1

INTRODUCTION

1.0

INTRODUCTION

This program documentation is one volume of the technical program documentation of the PTI/APWA Equipment Management System. There are five volumes in all. Additionally the system is supported by Testing Instructions, an Implementation Handbook, Forms Completion Instructions, User's Guide, and Chief Executive's Report.

This program documentation is intended to help in maintaining the programs on the local government computer system. Before making the computer programs operational, the data processing staff should consult the Implementation Handbook and Computer Program Testing Instructions for relevant information.

Contact PTI if questions arise which are not addressed in this program documentation.

SECTION 1.1

MODULE INTRODUCTORY NARRATIVE

EQUIPMENT INVENTORY

INTRODUCTORY NARRATIVE

EQUIPMENT INVENTORY MODULE

The equipment inventory module is the cornerstone of the equipment management system. The equipment inventory module maintains descriptive and functional information about each piece of equipment. The other modules in the system use the functional information maintained by this module to respond properly to each module's respective information. In this way, the equipment inventory module controls the rest of the equipment management system.

Detailed information about each piece of equipment is entered into the inventory module via the Equipment Inventory Form. This form may also be used to modify data already in the system. Detailed instructions for completing this form are provided with the system.

The equipment inventory module produces listings of all equipment added to, or deleted from, the fleet; listings of data modifications are also produced.

The status of equipment may be modified via the inventory module. The system produces listings of all status changes (e.g., deadlined, deleted from the fleet, etc.).

The Equipment Inventory Detail Report and the Equipment Inventory Summary Report are produced on request by the inventory module. These two reports represent different formats of the same report (i.e., detailed or summary). The Equipment Inventory Detailed (or Summary) Report can present data on a particular piece of equipment, on all equipment assigned to a particular organization, on all equipment having a specified APWA code, or on all equipment having a specified APWA code which are assigned to a particular organization. On these reports, the APWA code can be used to specify equipment of a certain class (sedans, trucks, non-self propelled equipment, etc.), equipment having particular characteristics (engine size and type, wheel base, fuel type, gross weight, etc.), or equipment of a specified model year. The Inventory module also produces on request a Fleet

Inventory Assignment Report which is a summary of all vehicles by vehicle classification and assigned organization.

SECTION 2

JOB FLOWS

SECTION 2.1

JOB STREAM OVERVIEW

EQUIPMENT INVENTORY

COMPONENT JOB STREAMS

SYSTEM NAME: PTI/APWA EQUIPMENT MANAGEMEMENT INFORMATION SYSTEM

COMPONENT: EQUIPMENT INVENTORY

JOB STREAM IDENTIFICATION	RUN FREQUENCY
EMIJØ1 - Edit, Update, and Change	Daily
EMIJØ2 - Extract and Print	On Request
EMIJØ3 - Fleet Assignment Summary	On Request

SECTION 2.2.1

DAILY JOBS

EQUIPMENT INVENTORY

JOB STREAM PROGRAMS AND FILES

SYSTEM NAME: PTI/APWA EQUIPMENT MANAGEMENT INFORMATION SYSTEM

COMPONENT NAME: EQUIPMENT INVENTORY

JOB NAME: EDIT, UPDATE, AND CHANGE-EMIJØ1

RUN FREQUENCY: DAILY

JOB STREAM PROGRAMS	COMPILED SIZE	FILES ACCESSED BY THIS PROGRAM
EMIUØ1 - Utility Sort	5ØK	EMIFØ1 EMIFØ2
EMIPØ1 - Equipment Inventory Edit	38K	EMIFØ2 EMIFØ3
EMIPØ2 - Equipment Inventory Update	48K	EMIFØ3 EMIFØ4 EMIFØ5
EMIUØ2 - Utility Sort	5ØK	EMIFØ5 EMIFØ6
EMIPØ3 - Change Report Program	54K	EMIFØ6 EMGFØ3

SECTION 2.2.1.1

DAILY JOB FLOWS

EQUIPMENT INVENTORY

PTI/APWA EQUIPMENT MANAGEMENT INFORMATION SYSTEM

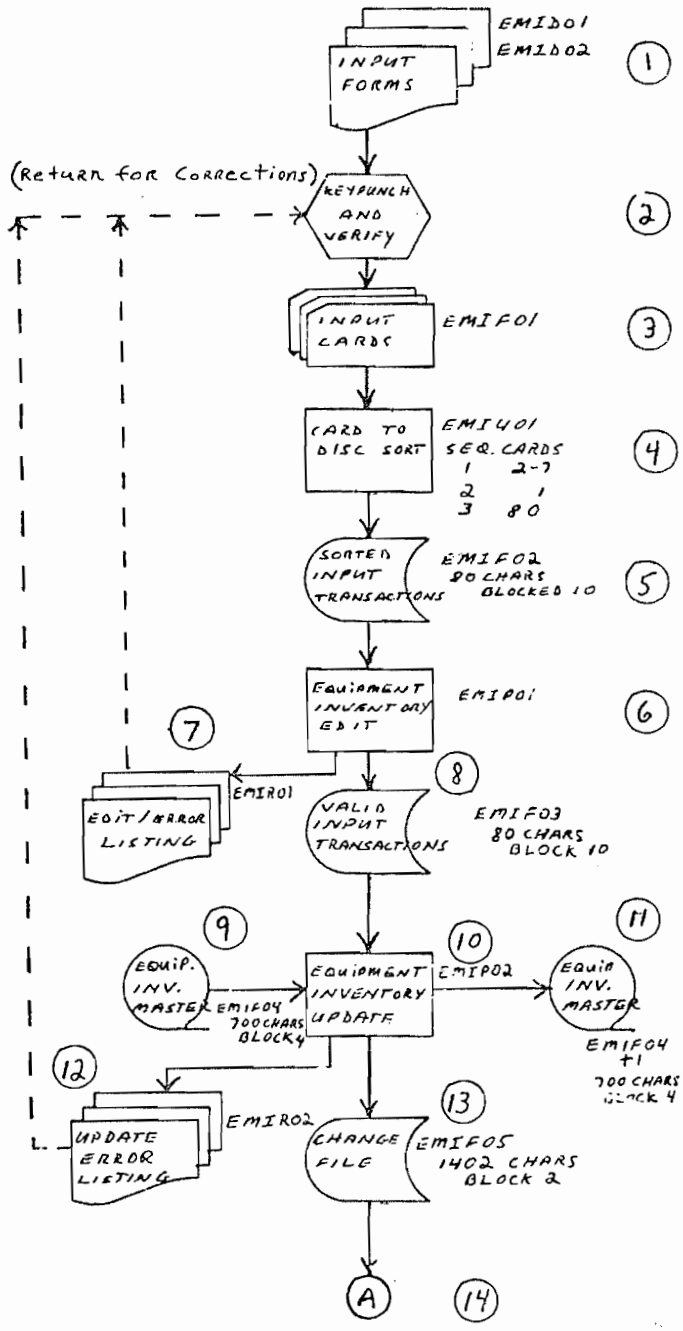
JOB FLOW

MODULE NAME Equipment Inventory

JOB FLOW NUMBER EMIJØ1

JOB FLOW NAME Edit, Update, and Change

FREQUENCY Daily



NARRATIVE

① Equipment Inventory Input Form ("Birth Certificate") and Meter/Status Change Form

② Forms are keypunched and verified.

③ Card input deck is sent to data processing.

④ Card to disk sort of input transactions.

⑤ All sorted transactions are input to equipment inventory edit.

⑥ Equipment Inventory Edit checks for as many errors as is feasible and produces the following.

⑦ An edit/error listing which is sent back for any error corrections and

⑧ A valid transaction file as input to the update.

⑨ The most recent equipment inventory master file is input to the update program.

⑩ The equipment inventory update program produces the following:

⑪ An updated master file

⑫ An error listing which is sent back for any error corrections

⑬ A change file to be used for an audit report.

⑭ Connector to page 2 of this job flow.

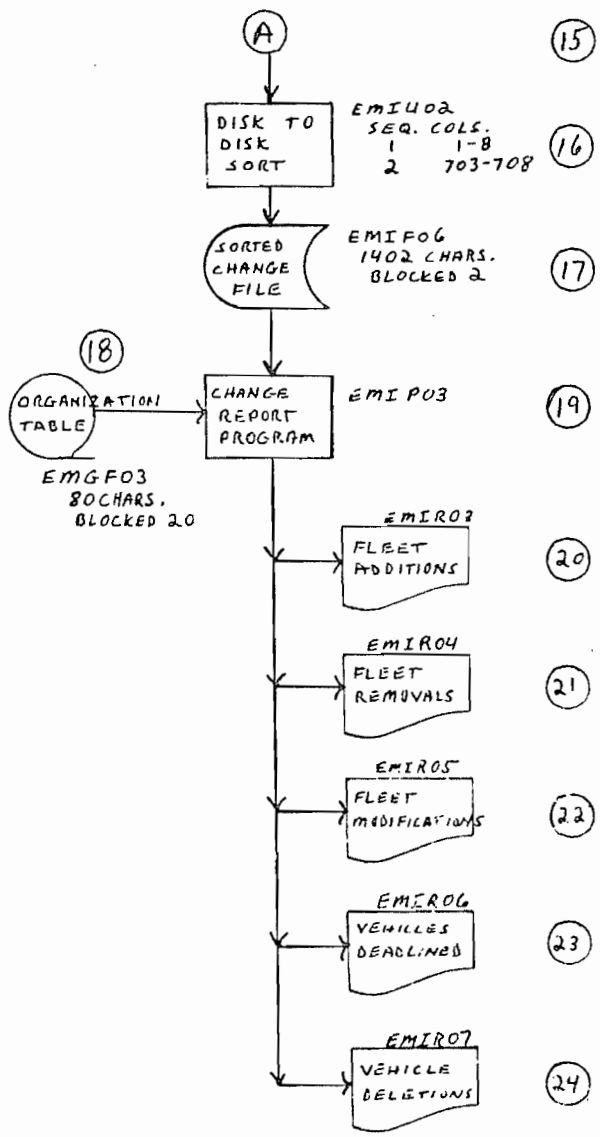
JOB FLOW

MODULE NAME Equipment Inventory

JOB FLOW NUMBER EMIJ01

JOB FLOW NAME Edit, Update, and Change

FREQUENCY Daily



NARRATIVE

(15) Connector from page 1.

(16) Disk to disk sort of change file produced by the update.

(17) Sorted change file is input to the change program.

(18) The organization table tape is input to the change program.

(19) The change report program generates the following reports:

(20) Fleet Additions

(21) Fleet Deletions

(22) Fleet Modifications

(23) Vehicles Deadlined more than one month.

(24) Vehicles removed from the equipment inventory master file.

SECTION 2.2.2

ON REQUEST JOBS

EQUIPMENT INVENTORY

JOB STREAM PROGRAMS AND FILES

SYSTEM NAME: PTI/APWA EQUIPMENT MANAGEMENT INFORMATION SYSTEM

COMPONENT NAME: EQUIPMENT INVENTORY

JOB NAME: Extract and Print - EMIJØ2

RUN FREQUENCY: On Request

JOB STREAM PROGRAMS	COMPILED SIZE	FILES ACCESSED BY THIS PROGRAM
EMIPØ4 - Extract Program	3ØK	EMIFØ4 EMIFØ7 EMIFØ8
EMIUØ3 - Utility Sort	5ØK	EMIFØ8 EMIFØ9
EMIPØ5 - Print Program	42K	EMIFØ9 EMGFØ3

JOB STREAM PROGRAMS AND FILES

SYSTEM NAME: PTI/APWA EQUIPMENT MANAGEMENT INFORMATION SYSTEM

COMPONENT NAME: EQUIPMENT INVENTORY

JOB NAME: Fleet Assignment Summary - EMIJØ3

RUN FREQUENCY: On Request

JOB STREAM PROGRAMS	COMPILED SIZE	FILES ACCESSED BY THIS PROGRAM
EMIUØ4 - Utility Sort	5ØK	EMIFØ4 EMIF10
EMIPØ6 - Fleet Assignment Summary Program	32K	EMIF10 EMGFØ3

SECTION 2.2.2.1

ON REQUEST JOB FLOWS

EQUIPMENT INVENTORY

PTI/APWA EQUIPMENT MANAGEMENT INFORMATION SYSTEM

JOB FLOW

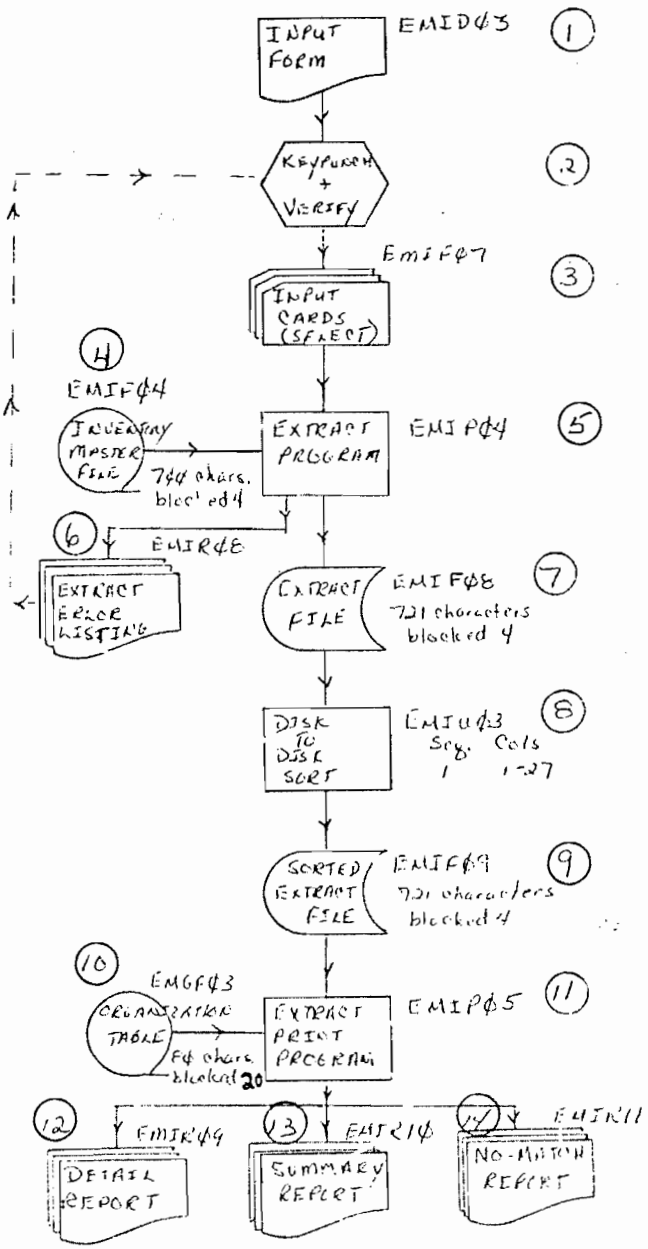
MODULE NAME Equipment Inventory

JOB FLOW NUMBER EMIJØ2

JOB FLOW NAME Extract, and Print

FREQUENCY On Request

JOB FLOW



NARRATIVE

(1) Select Request Form

(2) Form is keypunched and verified.

(3) Card input deck is sent to data processing.

(4) Equipment inventory master file input to extract program.

(5) Extract program selects the appropriate vehicles and produces the following:

(6) Error list of bad select cards to be used in making corrections,

(7) An extract file to be sorted and listed.

(8) Disk to disk sort of extract file.

(9) Sorted extract file is input to extract print program.

(10) Organization table tape is input to extract print program.

(11) The extract print program produces the following:

(12) Detail report

(13) Summary report

(14) "No-Match" report.

JOB FLOW

PAGE 1 of 1

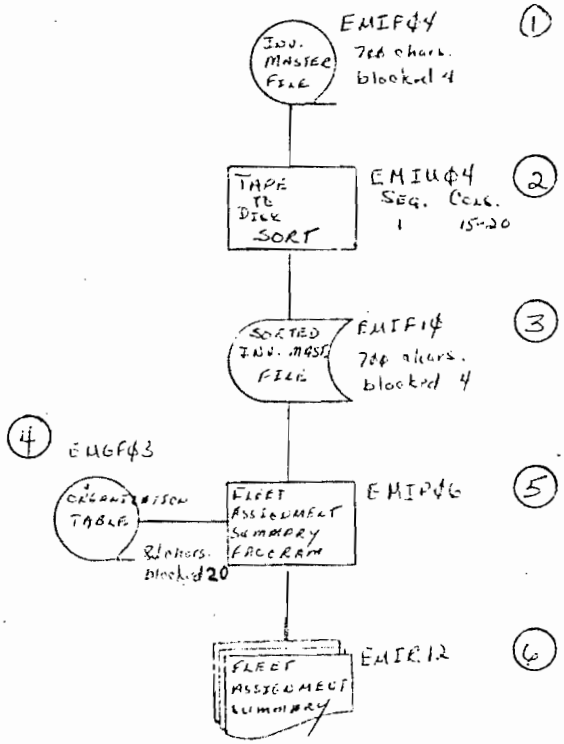
MODULE NAME Equipment Inventory

JOB FLOW NUMBER EMIJØ3

JOB FLOW NAME Fleet Assignment Summary

FREQUENCY On Request

JOB FLOW



NARRATIVE

1 Equipment inventory master file is input to sort.

2 Tape to disk sort of the master file.

3 Sorted equipment inventory master file is input to the fleet assignment summary program.

4 The organization table tape is input to the fleet assignment summary program.

5 The fleet assignment summary program produces the following:

6 The Fleet Assignment Summary Report.

SECTION 3

PROGRAM DOCUMENTATION

SECTION 3.1

EQUIPMENT INVENTORY EDIT

EMIPØ1

SECTION 3.1.1

PROGRAM NARRATIVE

EQUIPMENT INVENTORY EDIT

EQUIPMENT INVENTORY EDIT - PROGRAM EMIPØ1

General Description

The purpose of the inventory edit is to accept all inventory transactions and verify that the information being received is as accurate as possible prior to its being applied to the inventory master. The information entered into this program comes from two separate input forms. The major form, which is regarded as a regular transaction by the program, is the "Birth Certificate" or Equipment Inventory form. This form contains all the basic information needed to add a record to the inventory. It consists of four cards, of which 2, 3, and 4 are optional. The information contained on the first card is necessary for the operation of the complete system. The remaining cards may contain any or all the information listed.

Before proceeding any further, it is necessary to point out that this form has two possible applications. The first is the addition of a vehicle to the fleet, the second is the modification of information regarding a particular vehicle. If column one of each card contains a "2" it will be treated as an addition, if it contains a "5" it will be treated as a modification. All changes to any of the fields on the "Birth Certificate" are accomplished by using the modify (type "5") record.

The second form, which is regarded as an irregular transaction by the program, is the mileage and status change form. This form is used to (a) remove a vehicle from the fleet, (b) de-activate a vehicle, (c) re-activate a vehicle or (d) make a mileage correction (e.g., such as a meter replacement). These transactions are irregular in the sense they change the status of the vehicle (e.g., removing it from active service or placing it back on active status), or change the meter reading that is used for computing meter usage. The information that they modify is not contained on the Inventory Form and is only accessible through the special transaction.

SECTION 3.1.2

PROGRAM SPECIFICATIONS

EQUIPMENT INVENTORY EDIT

INVENTORY EDIT
PROGRAM SPECIFICATIONS

I. Purpose

The purpose of this program is to edit the equipment inventory form and mileage/status change transactions, which are used to update the master inventory file, and to generate an error report and output tape of valid transactions.

II. Inputs

1. Equipment Inventory transactions (Birth Certificate)
2. Mileage/Status Change form

III. Outputs

1. Valid Transactions
2. Error Report

IV. Processing

GENERAL REQUIREMENTS

Column one of each card designates the transaction type and each card must have a 1, 2, 3, 4, 5, or 6 as the only valid characters. Any other character in column one will cause the transaction card to be rejected, without further editing, using the error message INVALID CODE.

If the transaction type is 2 or 5, column 80 must contain a sequence number of 1, 2, 3 or 4, hence forth referred to as card type. If transaction type is 1, 3, 4 or 6 Field #2 must equal Field #3. If transaction code is 1, 3 or 4, columns 20-80 must be blank. If transaction type is 6, Fields #5 and 6 must be numeric and not blank. If not, reject the transaction using error messages NOT EQUAL or 20-80 NOT BLANK as appropriate.

Each transaction type 2 must have a card type 1 and all fields on this card must be present and must pass all edit specifications, except insurance

achedule field, which can be blank. If any field on a card type 1 of a transaction type 2 cards for that equipment number must be rejected.

All fields which are to be justified (either left or right) are to be tested to verify justification. If a field is not properly justified, the edit program will perform the appropriate justification and then proceed with normal editing. The message "REJUSTIFIED RIGHT" or "REJUSTIFIED LEFT" is to be printed in the ERROR MESSAGE column of the error report. If, after justification, an edit error is found, an additional message for this same field is to be printed immediately below the justification message, and asterisks for the field is to be printed immediately below the asterisks associated with the justification message.

Each transaction is to be printed under the heading CARD IMAGE. For each field on the transaction determined to be in error, the following actions are to be taken:

1. An asterisk is printed below every column of the field in error.
2. ASTERISK ILLEGAL - On type 5 transactions (except card type 1) the user may enter an asterisk (*) in the first position of a field to indicate that the contents of that field in the master inventory record are to be replaced by blanks by the update program. The use of this function is restricted to fields whose contents are not required by the system, and is, therefore, not allowed for any field on card type 1. If an asterisk is detected as the first character of any field on a card type 1 of a type 5 transaction, the message ASTERISK ILLEGAL is to be used.
3. FIELDS NOT EQUAL - For transaction types 1, 3, 4 and 6, Field 2 must equal Field 3. If not, reject the transaction.
4. 20-80 NOT BLANK - For transaction types 1, 3 and 4 columns 20-80 must all be blank. If not, reject the transaction.
5. NO SEQUENCE # - For transactions types 2 and 5 with no valid card type number (i.e., 1, 2, 3 or 4) in column 80.

6. Other ERROR TYPE messages are self-explanatory.
7. The card columns (as listed on the record layout for EMIFØ2) are to be printed under, CARD COL. on the error report.
8. Appropriate message is to be printed under ERROR MESSAGE as follows:

FIELD REJECTED - Invalid field will not be included in transaction record. For transaction types 2 and 5 the contents of the invalid field are to be replaced with blanks before the transaction is written to the output file containing the valid transactions.

RECORD REJECTED - Used whenever the entire transaction is to be rejected and the transaction is not to be written to output tape of valid transactions. The absence of any field on the type 1 card with the exception of the insurance field, of a transaction type 2 will cause the record and any associated type 2 transactions to be rejected. The RECORD REJECTED disposition also is to be used for any edit error associated with a transaction type 1, 3, 4 or 6 and also for any transaction encountered which does not have a 1, 2, 3, 4, 5 or 6 in column one.

When editing a field for numeric data, if the field being edited is only one character do not use the standard COBOL numeric class test. This is because the COBOL compilers of some manufacturers will not perform a numeric class test correctly on a one digit field.

For all transactions, if the entire transaction record (or set of type 2 transactions) is rejected, all remaining fields on the transaction are nevertheless to be edited with appropriate messages printed on the error report for the transaction record.

Any type 5 transaction (except card type 1) may have an asterisk as the first character in a field. The presence of the asterisk (*) indicates that whatever is in this field of the record in the master file is to be replaced by blanks by the

update program. No other editing is performed for fields having an asterisk. Note that the asterisk function is allowed only for type 5 transactions.

DATES: Edit each date field for numeric; edit month for 1-12; edit day for 1-31, edit year for numeric.

FIELD EDIT SPECIFICATIONS FOR EQUIPMENT INVENTORY DATA TRANSACTIONS

FIELD	CARD TYPE

1. (Transaction type) Described under "general" above.
2. (Equipment number) Required for all transactions. Any additional editing (including justification) is to conform to the design requirements of the local numbering scheme. Currently, the edit just checks that the field is non-blank.
3. (APWA code)

   Eight non-blank characters are required. Edit each of the eight character positions for numeric or alphabetic entries as follows:

   Positions

   1. Numeric (left most)
   2. Alphabetic
   3. Alphabetic
   4. Numeric
   5. Alphabetic
   6. Alphabetic
   7. Numeric
   8. Alphabetic (right-most)

   Position 1 must not equal 7.
4. (Date received)

   Edit for numeric. Edit to verify that date is not in advance of current date.

5. (Estimated life)

   Edit for right justification and numeric. Check is made between estimated life and meter unit.

6. (Life unit code)

   Only 1, 2 or 3 is a valid entry.

7. (Salvage value)

   Edit for right justification and numeric.

8. (Purchase Order Amount)

   Edit for right justification and numeric.

9. (User organization)

   Edit for right justification and numeric.

10. (PM Interval - mo)

    Edit for right justification and numeric.

11. (PM Interval - mi)

    Edit for right justification and numeric.

12. (PM sequence)

    Edit for left justification and alphabetic.

13. (Assigned PM location)

    Edit for right justification and numeric.

14. (Meter unit)

    Only H, M or X is a valid entry.

15. (Accident billing)

    Only Y or N is a valid entry.

16. (Billing method code)

    Only D or R is a valid entry. If R, set a flag to indicate there should be a type 2 card with billing data. If no card type 2 or no billing data, print out a message to that effect, but accept the transaction.

17. (Insurance schedule)

    No editing

18. (Normal duty hours)

Edit for right justification and numeric.

19. (Card type)

Only 1, 2, 3, or 4 is a valid entry.

FIELD	CARD TYPE

3. (Flat rate)

Edit for right justification and numeric.

4. (Unit code)

Required if field 3 (card 2) is present. If present, only M, C, or D is a valid entry.

5. (Basic use rate)

If present, edit for right justification and numeric.

6. (Use rate B)

If present, edit for right justification and numeric. Also, check if there is data in the basic use rate.

7. (Lower limit B)

Required if field 6 (card 2) is non-blank. If present edit for right justification and numeric.

8. (Use rate C)

If present, edit for right justification and numeric. Also, check that there is information in B field 6 and 7 (card 2) and the units in B are less than those in C.

9. (Lower limit C)

Required if field 8 (card 2) is non-blank. If present, edit for right justification and numeric.

10. (Old equipment number)

If present field 11 (card 2) below must also be present and valid. If not

reject field using the CONFLICTING STATUS message. Perform any editing performed on field #2.

11. (Date released)

If present edit for numeric.

12. (Old P.C. number)

No editing.

13. (Vehicle weight rating)

If present, edit for right justification and numeric.

14. (Improvements added)

If present, edit for right justification and numeric.

15. (Fuel tank capacity)

If present, edit for right justification and numeric.

16. (Fuel type)

No editing.

FIELD	CARD TYPE 3

3. (Equipment description)

If present, edit for left justification only.

4. (Fund number)

If present, edit for right justification only.

5. (State inspection frequency)

If present, edit for right justification and numeric.

6. (Assigned service location)

No editing.

7. (High way code)

If present, only 1, 2, or 3 is a valid entry.

8. (Chassis mfr code)

If present, edit for left justification only.

9. (Chassis model number)

If present, edit for left justification only.

10. (Chassis serial number)

If present, edit for left justification only.

11. (Chassis model year)

If present, edit for numeric.

FIELD	CARD TYPE 4

3. (Title number)

No editing.

4. (Property control number)

No editing.

5. (Purchase order number)

No editing.

6. (License tag number)

No editing.

7. (Domicile code)

No editing.

8. (Body mfr code)

If present, edit for alphabetic.

9. (Body model number)

If present, edit for left justification only.

10. (Body serial number)

If present, edit for left justification only.

11. (Body model year)

If present, edit for numeric.

FIELD EDIT SPECIFICATIONS -- STATUS/MILEAGE CORRECTIONS

FIELD

1. (Transaction type)

   An entry of 1, 3, 4 or 6 identifies the transaction type.

2. (Equipment number)

   Always required. Must be equal to field #3 below, otherwise reject the transaction with error type NOT EQUAL and place asterisks under each of these two fields on the error report.

3. (Equipment number)

   See above

4. (User organization)

   Required for this transaction format. Edit for right justification and numeric.

5. (Correct reading - new meter)

   Required for transaction type 6. Edit for right justification and numeric.

6. (Meter at failure - old meter)

   Required for transaction type 6. Edit for right justification and numeric. For transaction types 1, 3 and 4 this field must be blank.

SECTION 3.1.3

DEFINITIONS

EQUIPMENT INVENTORY EDIT

SELECTED SWITCHES, COUNTERS AND DATA ELEMENTS USED BY EMIPØ1

Switches, Counters, Data Elements	Use
PRES	Four position table that indicates what cards, in an add or modify set, are present. X - indicates a card present. Space - indicates card not present.
WS-TOT-CDS-IN	Total cards input.
WS-TOT-CDS-ER	Total cards with errors.
WS-TOT-CDS-OT	Total cards output.
WS-TOT-ERRS	Total number of errors.
WS-HOLD-DATE	Contains the current date for use in editing and report headings
WS-LINE-COUNT	Line count per page.
WS-PAGE-COUNT	Page counter.
WS-END-SW	Indicates file condition. 4 - first card. 0 - intermediate cards. 9 - end of file.
WS-HOLD-EQUIP	Contains equipment numbers being processed. Used for compairing incoming cards to determine if they are in the same set.
WS-HOLD-TYPE	Record type - 1 thru 6 used to compare incoming cards to determine if they are of the same type - usually 2 or 5.
WS-COMP-DATE-ONE	Run date reformatted to YYMMDD to check if incoming dates on cards are greater than run date.

Switches, Counters, Data Elements	Use
WS-COMP-DATE-TWO	Input date - reformatted to YYMMDD to compare against run date (reformatted).
WS-COMP-9	Used for date numeric check.
L-LSM-JUST	Used by right or left justify routines. Indicates the low limit position of a field that is right justified or the first position in a left justify move.
H-LSM-JUST	Used by right or left justify routines. Indicates the high limit position of a field that is left justified or the 20th position in a right justify move.
TWENTY-ZEROES	Contains twenty spaces to be used by the left or right justify routines.
WS-RT-JUST-SW	0 - indicates field was OK. 1 - indicates field was right justified.
WS-LT-JUST-SW	0 - indicates field was OK. 1 - indicates field was left justified.
ERRORS-ALL	Table that contains all error messages. Currently 27 error messages.
TABLE-DUM	Table contains abbreviations for all months to be used in the heading.
EDIT-FIELDS	A field 20 positions in length (maximum size of any field on input). It is used for right and left justification.
WS-POS	A redifinition of EDIT-FIELCS to enable the program to look at each position individually.

Switches, Counters, Data Elements	Use
	may contain an asterisk as the first character (asterisk in first field position indicates the field is to be deleted on the master).
WS-USE-INPUT-AREA	Indicates to the error print routine whether the input area, or the hold area is to be used. Space - use hold area. X - use input area.
WS-S1	Subscript used in different perform statements throughout the program.
WS-VALUE-CHECK	Represents the valid combinations between life expectancy and meter units in use. e.g., hours (3) and miles (M) is not a valid combination whereas months (1) and miles (M) is valid.
NR-SW	Indicates an irregular (not regular) transaction. 1, 3, 4 or 6 are considered irregular transactions for the purposes of editing in this program. Space - regular transaction 2 or 5 X - Irregular transactions 1, 3, 4 or 6.
WS-TRAN-HOLDX	Transaction type is placed here to check if it is valid before any further editing takes place.

Switches, Counters, Data Elements	Use
NO-CARD-ONE-SW	Indicates if the first card of a set is missing. 0 - first card is present 1 - first card is missing (reject all other cards on an add transaction).

SECTION 3.1.4

PARAGRAPH EXPLANATIONS

EQUIPMENT INVENTORY EDIT

Program Concept

The following is a conceptualized idea of how the edit program functions. It is not intended to be a detailed document, but rather a reference to be used with the program specifications, the actual program listing, and the input forms.

Paragraph Numbers	Function
X100 thru X199	Initialization of counters, switches, dates and hearings.
X200 thru X299	Main program loop. This section accepts the data for processing and turns control over to the appropriate subroutines for execution.
X300 thru X399	End of job processing. This includes final totals and file closing.
X400 thru X417	Edits involving card one of a regular transaction.
X418 thru X430	Edits involving card two of a regular transaction.
X431 thru X438	Edits involving card three of a regular transaction.
X439 thru X443	Edits involving card four of a regular transaction.
X500 thru X502	End of regular transaction processing. It is at this point that the decision is made whether the set is written to the output file or not.
X600 thru X605	Error routines that are performed by the main program edit routines to eliminate duplication of coding.

Paragraph Numbers	Function
X606 thru X612	Edits on irregular transactions.
X700 thru X702	Subroutines for setting asterisks to indicate errors and also left and right justification of fields.
X900 thru X951	All input and output subroutines, e.g., reading files, writing files, producing error listings, etc.

SECTION 3.1.5

REPORT LAYOUTS

EQUIPMENT INVENTORY EDIT

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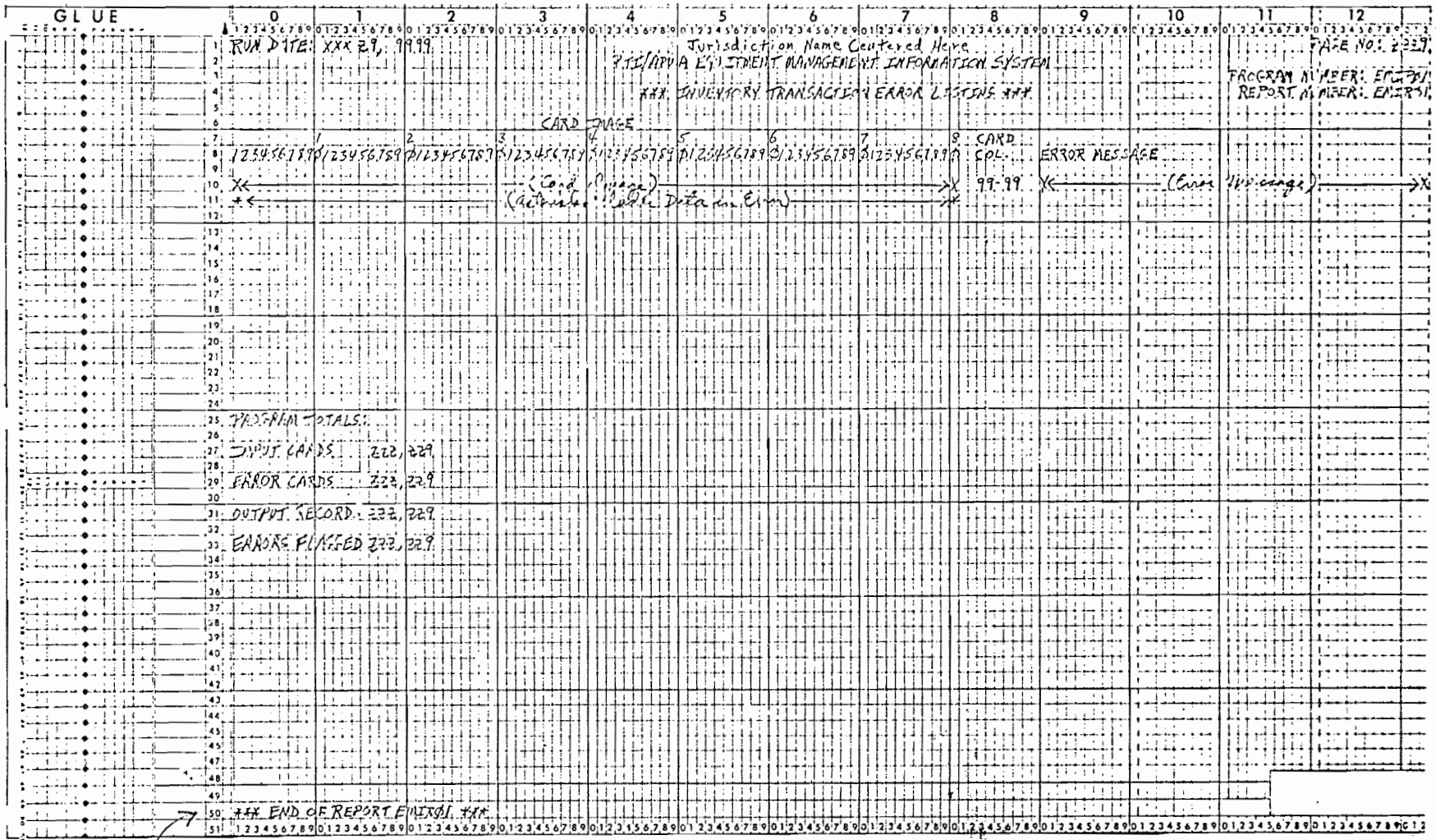
EMIR01 - INVENTORY EDIT REPORT



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SECTION 3.2

EQUIPMENT INVENTORY UPDATE

EMIPØ2

SECTION 3.2.1

PROGRAM NARRATIVE

EQUIPMENT INVENTORY UPDATE

EQUIPMENT INVENTORY MASTER FILE DAILY UPDATE PROGRAM

EMIPØ2

GENERAL DESCRIPTION -

EMIPØ2 reads Edited Transactions (output from EMIPØ1) and performs necessary maintenance to the Inventory Master File. Records may be added or changed and individual fields within a record may be changed, however, no hard Delete Function is allowed. Only one condition will cause a physical delete from the Master File (see Program Specs) and this Delete Function is automatic within the program.

As part of the maintenance, the use status code of any Master File Record may be altered. If a vehicle should be re-assigned, the vehicle is flagged as reassigned and a new Master File Record is created to show the active status of the vehicle with its new user (i.e. - the user to which the vehicle was re-assigned to). This function is automatic (again, see program specs for details).

Finally, EMIPØ2 creates the Output File EMIFØ4 which, in essence, is an Audit Trail of the maintenance which was performed by EMIPØ2 (again, see program specs for details).

SECTION 3.2.2

PROGRAM SPECIFICATIONS

EQUIPMENT INVENTORY UPDATE

EMIPØ2

DAILY INVENTORY MASTER FILE UPDATE

PROGRAM SPECIFICATIONS

I. Purpose

The purpose of this program is to add, modify or delete records to the Equipment Management Inventory Master File on a daily or as required basis.

II. Inputs

1. Inventory Master File
2. Edited Inventory Transaction File

III. Outputs

1. Updated Inventory Master File
2. Changes File
3. Error Report

IV. Processing

In the following narrative, Inventory Master File fields are underlined.

The Inventory Master File records and Transaction Records are to be matched by Equipment Number and Organization Code.

The Use Status Code of every record of the Master Inventory File is to be checked. The Use Status Codes on the Master File have the following significances:

(blank)	=	Active in fleet
1	=	Removed from fleet
2	=	Reassigned to another organization
3	=	De-activated

If the Use Status Code is 3 and the Date Last Status Change is more than 1 month old, move 70 to the Change Type Field (field #1) of the Changes File Record. Move the Master Record to the Old Master Record Area (field #2) and blank out the New Master Record Area (field #3) of the Changes File Record - (But do NOT delete this record from the Master Inventory File). If the Use Status Code is 1 or 2 and the Date Last Status Change is more than one month old, delete this record from the Master Inventory File. Move 80 to Change Type Field and Master Record to Old Master Record area.

However, if the record to be deleted (above) has Use Status Code of "2", perform the following operations on Current Month (CM) fields to corresponding YTD and LTD fields on the active master record for the same equipment number.

Operation	Field on Record to be Deleted		Field on Active Record
Add	Downtime Hours - CM	to	Downtime Hours - LTD
Add	Fuel Consumption - CM	to	Fuel Consumption - YTD
Add	Fuel Consumption - CM	to	Fuel Consumption - LTD
Add	Fuel Cost - CM	to	Fuel Cost - YTD
Add	Fuel Cost - CM	to	Fuel Cost - LTD
Add	Oil Consumption - CM	to	Oil Consumption - YTD
Add	Oil Consumption - CM	to	Oil Consumption - LTD
Add	Oil Cost - CM	to	Oil Cost - YTD
Add	Oil Cost - CM	to	Oil Cost - LTD
Add	Misc. Cost - CM	to	Misc. Cost - YTD

Operation	Field on Record to be Deleted		Field on Active Record
Add	Misc. Cost - CM	to	Misc. Cost - LTD
Add	Number Repair Orders - CM	to	Number Repair Orders - LTD
Add	Number Road Calls - CM	to	Number Road Calls - LTD
Add	Scheduled Labor Hours - CM	to	Scheduled Labor Hours - LTD
Add	Total Labor Hours - CM	to	Total Labor Hours - LTD
Add	Labor Cost - CM	to	Labor Cost - LTD
Add	Parts Cost - CM	to	Parts Cost - LTD
Add	Commercial Cost - CM	to	Commercial Cost - LTD
Add	Accident Cost - CM	to	Accident Cost - LTD
Add	Warranty Cost - CM	to	Warranty Cost - LTD
Add	Rental Charge - CM	to	Rental Charge - YTD
Add	Rental Charge - CM	to	Rental Charge - LTD
Add	Meter Units Operated - CM	to	Meter Units Operated - LTD
Add	Insurance Cost - CM	to	Insurance Cost - YTD
Add	Insurance Cost - CM	to	Insurance Cost - LTD
Add	Depreciation - CM	to	Depreciation - YTD
Add	Depreciation - CM	to	Depreciation - LTD

The input transactions are 80 column card images stored on tape. This input transaction tape was generated by the Master Inventory Transaction Edit Program. The sequence of input transactions is equipment number, transaction type and card number. Transaction Type (Col. 1) of the transaction record has the following significances:

1 - remove vehicle from fleet

2 - add vehicle to fleet

3 - de-activate vehicle

4 - re-activate vehicle

5 - modify fields of existing record

6 - mileage correction

For each transaction the following edits are to be performed with respect to the Master File.

Transaction Types 1, 3, 4, 6: The Organization Code on the transaction must equal the Organization Code on the Master Record. If not, reject the transaction with an error type of WRONG ORGANIZATION, and disposition of REJECTED.

Transaction Types 1, 5, and 6: Determine if a record with the same equipment number exists on the Master File and has a Use Status Code of blank or 3. If no such record exists, reject the transaction using the error type message "NOT IN FLEET" and disposition message "REJECTED". If equipment number matches but Use Status Code is 1 or 2, use error type "INVALID USE STATUS CODE - TRANSACTION REJECTED".

Transaction Type 2: When the first type 2 transaction of a set is encountered, determine if a record with the same Equipment Number and a Use Status Code of "blank" or 3 is in the Old Master File. If not, build a new record by moving all the entries on each type 2 transaction for the equipment number to the corresponding positions in the Master Record.

If a record with the same Equipment Number exists in the Master File and the Use Status Code of the Master Record is blank or 3, reject the new record (set of type 2 transactions). Print out each type 2 transaction in the set on the Error/Audit Listing Report. Print "DUPLICATE EQUIPMENT NO." under the Error Type heading. Print "REJECTED" under the Disposition heading.

Transaction Type 4: Determine if a record with the same Equipment Number and

a Use Status Code of 3 exists. If so, the transaction is accepted. If, however, a record with the same Equipment Number and a Use Status Code of "blank" exists, reject the record with an error type of "NOT DE-ACTIVATED" and disposition of "REJECTED". If neither of these two conditions exists, reject the record with an error type of "NOT IN FLEET" and a disposition of "REJECTED".

Transaction Type 6: The two Equipment Numbers in the transaction must be equal. If not, reject the transaction with error type message "TRANS EQUIP NO'S NOT EQUAL" and disposition of "REJECTED".

PROCESSING ACCEPTED TRANSACTIONS

Transaction Type 1: Move 1 to the Use Status Code of the record. Move the current date to the Date Last Status Change of the Master Record. Write the record to the New Master Record. Write the record to the New Master File.

Transaction Type 2: For each set of Type 2 Transactions, the Unit Depreciation Amount of the Master Record is to be calculated as follows:

$$\text{Unit Depreciation Amount} = \frac{\text{P.O. Amount} + (\text{Improvement Added} - \text{LTD}) - \text{Salvage Value}}{\text{Estimated Life} \times 1000}$$

If Estimated Life is hours, multiply by 100; if months, by 1. Initialize the PM Pointer of the Master Record to 1. Initialize meter failure flag to 0. Move improvement added to both Improvement Added - CM and Improvement Added - LTD fields before Unit Depreciation is calculated.

Transaction Type 3: Move 3 to the Use Status Code and the current date to Date

Last Status Change. Write the record to the New Master File.

Transaction Type 4: Move a blank to the Use Status Code and the current date to Date Last Status Change of the Master Record. Write the record to the New Master File.

Transaction Type 5: Move the fields of the transaction record to their corresponding fields in the Master Record according to the following rules -

(1) Any transaction field with blanks is to be ignored - no further processing of that field.

(2) If a given field in the transaction has an asterisk (*) in the high order (left most) position of the field - blank out or zero fill the appropriate field in the Master Record. Blank a field if that field is defined as Alphabetic or Alphanumeric (Picture of "X"), zero fill if the field is numeric (Picture of "9"). The only field on a "1" card which can be blanked out is insurance schedule, since all other "1" card fields are required. Asterisks will be ignored if they try to blank out any other "1" card field.

(3) If a given field in the transaction is NOT blank and has no high order asterisk, move the contents of that field to the corresponding Master Record Field. If improvement added data is present, move this value to Improvement Added - LTD field and Current Book Value.

(4) If there is an entry on the Transaction Record for either improvements, P. O. Amount, Salvage Value or Estimated Life, the Unit Depreciation Amount of the Master Record is to be re-calculated according to the formula described above in processing Type 2 Transactions. Use the new master file values from the Transaction Record for the above calculation and use the Improvement Added - LTD field.

If an entry is made to User Organization on the Transaction Record - (i.e., Not Blank), the following steps are to be taken:

(1) Move a "2" to Use Status Code and move current date to Date of Last Status Change of the Old Master Record. These are the only changes to be made to the Master Record. Write the record to the Updated Master File.

(2) Also, write another copy of the Master Record reflecting the New User Organization and all other normal modifications described above. Use Status Code is Not to be changed. Date Last Status Change must have current date.

Transaction Type 6: Move the Meter-At-Failure field of the transaction to Meter Reading At Failure of the Master record. Set the Meter Failure Flag of the Master Record to "1". Perform the following calculation:

$$\text{Meter Units Operated Current Month} = \text{Meter Reading At Failure} - \text{Current Meter Reading}$$

Then, move the corrected meter reading on the transaction to the Current Meter Reading of the Master Record.

However, if the Meter Failure Flag is already "1", reject the Type "6" Transaction with the error type message "ALREADY CHANGED" and disposition of "REJECTED".

MASTER INVENTORY CHANGES FILE

The Changes File provides data to another program in the PTI/APWA Equipment Management System for the purpose of producing a Maintenance Audit Listing which reflects the changes and/or additions made to the Inventory Master File. Write these records according to the following rules:

Transaction Type 1: Move 20 to Change Type (field #1) of Changes File Record

and move the Old Master Record to the Old Master Record Area of the Changes File Record. Blank out the New Master Record area of the Changes File Record.

Transaction Type 2: For each new Master Record created, write a Changes File Record with 10 in the Change Type Field and the newly created Master Record in the New Master Record area of the Changes File. Blank out the Old Master Record Area of the Changes File.

Transaction Type 3: Move 30 to the Change Type Field and move the Old Master Record to the Old Master Record Area of the Changes File Record. Blank out the New Master Record Area.

Transaction Type 4: Move 40 to the Change Type Field and move the Old Master Record to the Old Master Record Area and blank out the New Master Record Area of the Changes File Record.

Transaction Type 5: Move 50 to the Change Type Field. Move the Old Master Record (before any changes were made) to the Old Master Record Area and move the Updated Master Record to the New Master Record Area of the Changes File Record.

Transaction Type 6: Move 60 to the Change Type Field. Move the Old Master Record (before mileage correction) to the Old Master Record Area. Move the Updated Master Record to the New Master Record Area of the Changes File Record.

SUMMARY OF CHANGES FILE ENTRIES

Change Description	Change Type Field	Old Master Record Area	New Master Record Area
De-activated more than one month	70	Old Mast Record	BLANK
Remove	20	Old Mast Record	BLANK
Add	10	BLANK	New Mast Record
De-activate	30	Old Mast Record	BLANK
Re-activate	40	Old Mast Record	BLANK
Modify	50	Old Mast Record	New Mast Record
Mileage Change	60	Old Mast Record	New Mast Record
Delete	80	Old Mast Record	BLANK
	Pos. 1 - 2	Pos. 3 - 702	Pos. 703 - 1402

SECTION 3.2.3

DEFINITIONS

EQUIPMENT INVENTORY UPDATE

SELECTED SWITCHES, COUNTERS, AND DATA ELEMENTS USED BY EMIPØ2

DATA ELEMENTS	DESCRIPTIONS
PAGE-CNTR	Report Page Counter
LINE-CNTR	Report Line Counter
LINE-CNTR-MAX	Maximum Number of Lines
TRANSACTION -EOF-FLAG	0 - More Transactions to Process
	1 - End of Transactions
TRANSACTION -FLAG	0 - Read Input Master
	1 - Bypass Master Read
PRINT-FLAG	0 - New Transaction Type
	1 - Same Transaction Type
NO-MASTER-FLAG	0 - Master Exists
	1 - No Master
FLAG-ON	Equals "1"
FLAG OFF	Equals "0"
TRANSACTION-POINTER	Subscripting Data Field used in Transaction Tabling.
DATE-POINTER	Scripting Data Field used for Month Report Heading.
STAT-CHG-2-YRS	Total Field used to store Last Status Change Computation.
STAT-CHG-1-MONTH	Total Field used to store Re-assigned Data Computation
CURRENT-DATE-MONTHS	Today's Date in Months
ERROR-FLAG	0 - No Transaction Errors
	1 - Transaction Errors
OVERALL-ERROR-FLAG	0 - No Equipment, No. Errors
	1 - Equipment No Errors
TRANSACTION-AREA	Work area used to Table Maintenance Transactions for an Equip. Number

DATA ELEMENTS	DESCRIPTIONS
EQUIP-NO-HOLD	Compare Field used to determine Transaction Tabling for a given Equipment Number.
TOTAL-INPUT-TRANS	Input Transaction Count
TOTAL-INPUT-MASTER	Input Master Count
TOTAL-OUTPUT-MASTER	Output Master Count
TOTAL-CHANGE-MASTER	Output Change File Count
TODAYS-DATE	Current Date in MMDDYY Format
USER-CHANGE-FLAG	0 - No Organization Code Change 1 - Organization Code Change
COMMON-WORK	Work - Area used to compare Fields for Maintenance Changes
AST-POS-1	Literal used to check for maintenance changes value '*'
AST-POS-3	Same as AST-POS-1, Value ' *bb '
AST-POS-4	Same as AST-POS-1, Value ' *bbb '.
AST-POS-6	Same as AST-POS-1, Value ' *bbbb '.
AST-POS-7	Same as AST-POS-1, Value ' *bbbbb '.
AST-POS-8	Same as AST-POS-1, Value ' *bbbbbb '.
AST-POS-9	Same as AST-POS-1, Value ' *bbbbbbb '.
MONTH-TABLE	Literal containing the Alphabetic Names for the Months in a Year
TRANSACTION-FLD-RELATIONSHIPS	Literals which contain: 2 Digit Field Starting Position 2 Digit Field Length, 5 Charter Field used to describe Starting and Ending Points for that Field. Used in Conjunction with the Error Report.
TRANSACTION-ERROR-MESSAGES	Literals which describe the Error Condition which exists on a particular Transaction.
DATE-AREA	Work area used to store the Maintenance Run Date.

SECTION 3.2.4

PARAGRAPH EXPLANATION

EQUIPMENT INVENTORY UPDATE

Program Concept

The following is a conceptualized idea of how the Daily Update program works. It is not intended to be a detailed document, but, rather, a reference to be used with the program specifications, the actual program listing, and the input data.

PARAGRAPH NUMBER(S)	FUNCTION
100 - 100	Initialize Work Areas Perform Open Files Print 1st Report Heading
205 - 220	Perform Transaction on File Read. Loan Transaction Table
240 - 265	Perform Master File Read Check for last Statistical Change Check for Vehicle Reassign Change
270 - 299	Compare Transaction to Master and Branch to Transaction Table Read
300 - 300	End of Job Routine Print Report Totals Perform Close Files Stop Run
400 - 400	Report Heading Print
405 - 405	Initialize Change File Work Area
410 - 440	Read Transaction Table and Branch to Appropriate Edit Routine.
500 - 504	Remove Vehicle from Fleet Subroutine
550 - 558	De-Activate Vehicle in Fleet Subroutine
600 - 608	Re-Activate Vehicle in Fleet Subroutine
650 - 650	Modify Transaction Card Code Check and Branch

PARAGRAPH NUMBER(S)	FUNCTION
660 - 6615	Card Code 1 Vehicle Modification Subroutine.
670 - 6794	Card Code 2 Vehicle Modification Subroutine.
860 - 687	Card Code 3 Vehicle Modification Subroutine.
890 - 8971	Card Code 4 Vehicle Modification Subroutine.
698 - 698	End of Vehicle Modification Subroutine.
700 - 706	Vehicle Mileage Change Subroutine.
750 - 750	Card Code Check and Branch for a Vehicle Addition.
7501 - 751	Vehicle Addition Card Code 1 Subroutine.
760 - 7694	Vehicle Addition Card Code 2 Subroutine.
770 - 777	Vehicle Addition Card Code 3 Subroutine.
780 - 7871	Vehicle Addition Card Code 4 Subroutine.
790 - 790	Initialize New Vehicle Work Area Record.
800 - 800	Build and Print Error Report Line.
900 - 900	Open Files.
910 - 910	Read Transaction File.
915 - 915	Read Input Master.
920 - 920	Write Change Record.
925 - 925	Write Output Master.
930 - 930	Write Report Line.
935 - 935	Write New Report Page.
995 - 995	Close Files.

SECTION 3.2.5

REPORT LAYOUTS

EQUIPMENT INVENTORY UPDATE

EMIR02 - INVENTORY UPDATE EDIT REPORT

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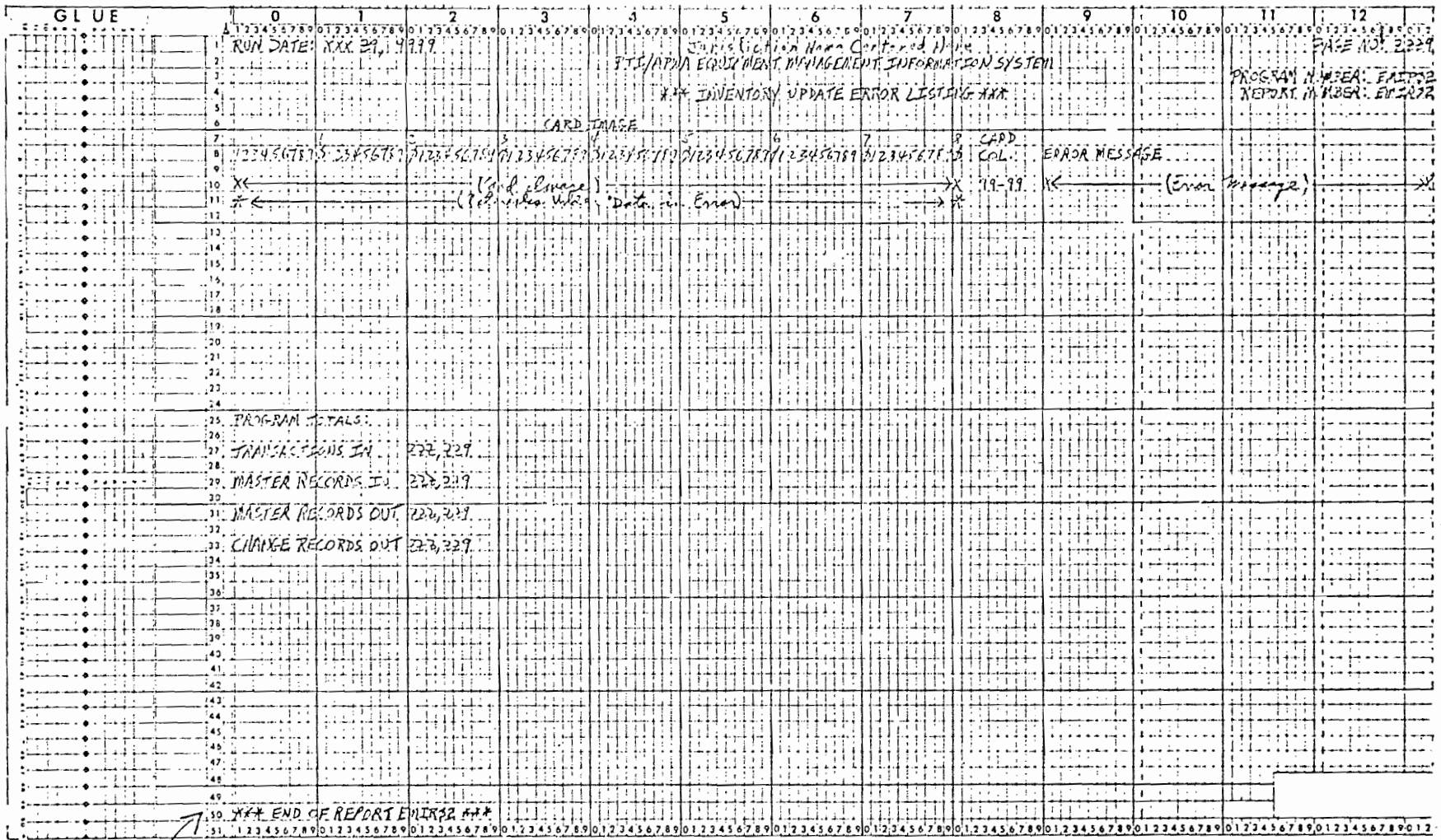

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SECTION 3.3

EQUIPMENT INVENTORY CHANGES

EMIPØ3

SECTION 3.3.1

PROGRAM NARRATIVE

EQUIPMENT INVENTORY CHANGES

Narrative is included at the start of
PROGRAM SPECIFICATIONS

SECTION 3.3.2

PROGRAM SPECIFICATIONS

EQUIPMENT INVENTORY CHANGES

Inventory Changes
Program Specifications

I. Purpose

The Change Report program accepts records created by the daily Inventory Update Program (EMIPØ2), and based on the type of record, produces five (5) different reports.

The types of records that are produced by the update program and the reports they produce are as follows:

Record Type	
10 - Add	Fleet Additions (EMIRØ3)
20 - Remove	Fleet Deletions (EMIRØ4)
30 - Deactivate (Deadlined)	Fleet Changes (EMIRØ5)
40 - Reactivate	Fleet Changes (EMIRØ5)
50 - Data Modifications	Fleet Changes (EMIRØ5)
60 - Meter Change	Fleet Changes (EMIRØ5)
70 - Vehicles Deactivated more than 1 month	Fleet Changes (EMIRØ6)
80 - Vehicle Deletion	Fleet Removal (EMIRØ7)

Some general comments regarding the record types and the associated reports are appropriate at this time.

10 - Add	Anytime a new vehicle is added to the fleet, It is shown on the fleet addition report.
20 - Remove	Anytime a vehicle is removed from the fleet, all historical data on that vehicle is shown on a report so that it is not completely lost. The vehicle at this time is still on the file so that any bills or fuel tickets still outstanding can be matched against it. Only after one month has elapsed will the vehicle be removed from the file completely.

Inventory Changes
Program Specifications

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30 - Deactivate (Deadlined)	Fleet Changes (EMIRØ5)
40 - Reactivate	Fleet Changes (EMIRØ5)
50 - Data Modifications	Fleet Changes (EMIRØ5)
60 - Meter Change	Fleet Changes (EMIRØ5)
70 - Vehicles Deactivated more than 1 month	Fleet Changes (EMIRØ6)
80 - Vehicle Deletion	Fleet Removal (EMIRØ7)

Some general comments regarding the record types and the associated reports are appropriate at this time.

10 - Add	Anytime a new vehicle is added to the fleet, it is shown on the fleet addition report.
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30 - Deactivate	A vehicle that is not in use, possibly awaiting trade-in or auction, can be deactivated so that normal checking in other programs is not performed.
40 - Reactivate	A vehicle that has been deadlined can be reactivated and this will be shown on a report.
50 - Data Modifications	Any change to data on a vehicle will be shown. The field changed is named and the field before and after the change is shown.
60 - Meter Change	Any change in the meter reading (miles/hour) is shown on this report.
70 - Vehicle Deactivated More than 1 month	Any vehicle that has been deadlined more than 1 month will be shown. It is possible that the vehicle may have been traded in or sold, yet was not deleted from the fleet.
80 - Vehicle Deletion	Any vehicle that has been deleted more than 1 month is now physically removed from the file (See record type 20)

The records from the update are sorted in record type sequence and then vehicle number sequence and then used as input to this program.

II. Inputs

Organization Table

Changes File from EMIPØ2

III. Outputs

Five Reports

CHANGES REPORT - GENERATOR - EMIPØ3

IV. PROCESSING

The changes file is 1402 characters long. It is sorted by the first two characteristics. The 3-702 characters represent an image of the master file before any changes are made. The 703-1402 characters represent the master file after the change has been made.

TRAN CODE	OLD MASTER RECORD IMAGE	NEW MASTER RECORD IMAGE
1 - 2	3-702	703-1402

The first two characters (TRAN CODE) contain a code indicating the type of change that has been made to the master file record.

SUMMARY OF CHANGES FILE ENTRIES

Change Description	Change Type Field	Old Master Record Area	New Master Record Area	Report Format
Add	10	BLANK	New Mast Record	1
Remove	20	Old Mast Area	BLANK	2
De-Activate	30	Old Mast Record	BLANK	3
Re-Activate	40	Old Mast Record	BLANK	3
Modify	50	Old Mast Record	New Mast Record	3
Mileage Change	60	Old Mast Record	New Mast Record	3
De-activated more than six months	70	Old Mast Record	BLANK	4
Delete	80	Old Mast Record	BLANK	5
	Pos. 1-2	Pos. 3-702	Pos. 703-1102	

TRAN Codes 20, 30, and 40, indicate a change in the status field of a record (old field 4) on the changes file. TRAN code 70 does not indicate a change; it indicates that a vehicle has had a particular status (de-activated) for more than one month. TRAN code 10 indicates a vehicle that has been added to the fleet. TRAN code 60 indicates a mileage change. TRAN code 80 indicates that a record has been deleted from the master file. TRAN code 50 indicates that one or more fields have been modified for a record on the master file. (To determine which field(s) have been modified, a compare must be performed between the old and new image of the master file record on the changes file.)

There are different formats to the changes report. TRAN code 10 records are to be printed in format 1. TRAN code 20 is to be printed in format 2. TRAN code 30, 40, 50, and 60 are to be printed on format 3; TRAN code 70 in format 4; TRAN code 80 in format 5.

The changes program should be written modularly so that each report format is a separate module within the program.

TRAN CODE 10 - REPORT FORMAT 1 - ADDITIONS TO THE FLEET

Records with a TRAN code of 10 should be used to produce report format 1. The numbers on the accompanying report format refer to the field number on the changes file. The alphabetic characters are explained below. Since the Old Master Record Area will be blank for TRAN code 10 records, the field numbers refer to the New Master Record Area.

A. Est. Life - If field 7 (Estimated Life Code) contains a value of 1, move the value of field 6 (estimated life) to the character positions (ZZZZZ) and the letters "MO" to the columns shown.

If field 7 contains a 2, multiply field 6 by 100 and move the result to the character positions and the letters "MI" to the columns shown.

If field 7 contains a 3, multiply field 6 by 100 and move the result to the character positions and the letters "HR" to the columns shown.

B. PM Interval - Move field 12 to the character positions ZZZXX. If field 16 contains an "H", move "HR" to the columns shown. If field 16 contains an "M", move "MI" to the columns shown.

C. Meter Unit - If field 16 contains an "H", move "Hours" to the columns shown. If field 16 contains an "M", move "Miles" to the columns shown. If field 16 contains an "X", move "Un-Metered" to the columns shown.

D. Bill Accident - If field 17 contains a "Y", print "YES". If field 17 contains an "N", print "NO".

E. Billing Basis - If field 18 contains an "R", print "RENTAL". If field 18 contains a "D", print "DIR. CHARGE".

F. Insurance Schedule - Hyphenate the 3 characters in field 19. If field 19 is blank, print "NONE".

G. Flat Rate Per - If field 23 contains an "M", print "MO". If field 23 contains a "D", print "DAY". If field 23 contains a "C", print "HR".

H. Use Rate - Basic, B and C - If field 16 contains an "H", print "HR". If field 16 contains an "M", print "MI".

I. Highway Code - If field 41 contains a "1", print "CITY". If field 41 contains a "2", print "HIGHWAY". If field 41 contains a "3", print "OFF-ROAD".

J. Class Year - Add 1900 to field 45 and print.

K. Body Year - Add 1900 to field 54 and print.

TRAN CODE 20 - FORMAT 2

Removed from fleet

Records with a transaction code of 20 are to produce report format 2 reports. The new master record image area in the changes file will be blank.

TRAN CODE 50, 60, 30, and 40 - FORMAT 3

STATUS, MILEAGE, AND MISC. DATA CHANGES

Records with a tran code of 50, 60, 30, or 40 should be used to produce report format 3. For any of these transaction codes print equipment numbers from field one of the old master record image on the changes record. Print Description from field 37. Print Make from field 42. Print assigned organization from a 75 element conversion table of organization codes and organization descriptions; field 3 contains the organization code. Look up the corresponding description in the table.

Note: This table should not be hard coded but rather should be built from the organization table file EMGFØ3. This program is concerned only with the organization records. All organization code description records have a record type of "1".

The data in the Field Changed, Old Contents, and New Contents fields varies with the transaction codes as follows:

TRANSACTION code 30:

Print "STATUS" in the field changed column.

Print "DEADLINED" in the New Contents column.

If field 4 (STATUS) of the old master record image contains a blank, print "ACTIVE" in the old contents column.

If field 4 (STATUS) of the old master record image contains a 2, print "RE-ASSIGNED" in the old contents column.

If field 4 (STATUS) of the old master record image contains a 3, print "DE-ACTIVATED" in the old contents column.

TRANSACTION code 40:

(Same as transaction code 30 with the exception that "RE-ACTIVATED" is printed in the New Contents column.)

TRANSACTION code 50:

Transaction code 50 indicates that one of several fields has been changed on the master record. The following is a list of the fields that may have been changed:

FORMAT 3 ABBREVIATIONS FOR TRAN CODE 50

Field Number	Field Name	Abbreviation
2	APWA Code	APWA CLASS
5	Date Received	DATE RECVD
6	Estimated Life	EST LIFE
7	Estimated Life Code	LIFE CODE
8	Salvage Value	SALV VALUE
9	P. O. Amount	P. O. Amount
10	Unit Depreciation Amount	UNIT DEP $
3	Organization Code	ORG. CODE
11	PM Interval - Months	P. M. MONTHS
12	PM Interval - Meter Units	P. M. UNITS
13	PM Sequence	PM SEQNCE
15	Assigned PM Locator	PM LOCATN

16	Meter Unit	METER UNIT
17	Bill Accident Repairs	BILL ACCID
18	Billing Basis	BILL BASIS
19	Insurance Schedule	INS. SCHED
20	Normal Duty Hours Per Month	DUTY HOURS
22	Flat Rate	FLAT RATE
23	Flat Rate Unit Code	FLAT UNIT
24	Basic Use Rate	BASIC RATE
25	Use Rate B	USE RATE B
26	Use Rate B Units	USE B UNIT
27	Use Rate C	USE RATE C
28	Use Rate C Units	USE C UNIT
29	Old Equipment Number	OLD EQUIP
30	Date Released	OLD NO REL
31	Old Property Control Number	OLD PC NO
32	GVWR - Pounds	GVWR POUND
33	Improvements Added - Current Month	$ IMPROV.
35	Fuel Tank Capacity	TANK CAP.
36	Fuel Type	FULL TYPE
37	Description	DESCRIPT.
38	Fund Number	FUND NO.
39	Inspection Frequency - Months	STATE INSP.
40	Assigned Service Location	SERV. LOC.
41	Highway Code	ROAD CODE
42	Chassis MFR. Code	CHASS MAKE
43	Chassis Model Number	CHAS MODEL
44	Chassis Serial Number	SERIAL NO.
45	Chassis Model Year	MODEL YR.

46	Title Number	TITLE NO.
47	Property Control Number	PROP NUMB.
48	Purchase Order Number	PUR ORD NO
49	License Tag Number	LIC TAG NO
50	Domicile Code	DOMICILE
51	Body MFR Code	BODY MAKE
52	Body Model Number	BODY MODEL
53	Body Serial Number	BODY SER
54	Body Model Year	BODY YEAR

Each one of these fields on the old image must be compared against the corresponding field in the new image until a discrepancy is found. Print the abbreviated heading provided in the above list in the field changed column. Print the value of the old image field in the old contents column. Print the value of the new image field in the new contents column. There may be more than one field that has a discrepancy. Print a separate line for field changed, old contents, and new contents for each discrepancy. Only discrepancies for the above listed fields should be printed.

TRANSACTION Code 60:

Print "Meter Read" in the field changed column. Print the value of the meter reading from the old master image in the old contents column. Print the value of the meter reading from the new master image in the new contents column.

TRAN CODE 70 - FORMAT 4

Deactivated More Than One Month.

Tran code 70 records are to produce report format 4.

Print the data under the appropriate report columns from the old image changes file area as indicated:

COLUMN	FIELD
Equipment Number	1
Description	37
Make	42
Class Code	2
Assigned Organization	Code description table per organization code
Organization Code	3
Date in Service	5
Current Meter	55
Current Value	68
Total Costs	Add fields 77, 83, 86, 96, 98, 100

TRAN CODE 80 - FORMAT 5

Deleted from the master file.

Tran Code 80 records are used to produce Format 5. (After a vehicle has been noted as deleted from the fleet for a period of time, its record is then deleted from the master file.)

Print the data under the appropriate report columns from the old image changes file area as indicated:

Column	Field
Equipment Number	1
Description	37
Make	42
Class Code	2
Assigned Organization	Code description table per org code
Organization Code	3
Date in Service	5
Status Code	4
Status Description	Depending on the value of field 4, print the following: 1 - deleted 2 - org. charge
Date Last Status Change	62

SECTION 3.3.3

DEFINITIONS

EQUIPMENT INVENTORY CHANGES

Selected Switches, Counters and Data Elements Used by EMIPØ3

Switches, Counters Data Elements	Use
WORK-RECORD-BEFORE	Master Record Before Any Changes
WORK-RECORD-AFTER	Master Record After Any Changes
TABLE-ORGN	Organization Table - Used in Table Search
ORGN-TAB-CNTR	Count of Total Number of Organizations in Table
TOP-OF-PAGE	Set to 60 in Current Program. Used to Determine Line Count for Top of Page
SPLIT-INS	Used to Break Out the 3 Digits of the Insurance Field
ORGN-SUB-HOLD	Used to Hold Subscript for Organization
ORGN-FOUND-SW	Set to Ø Before Search and Is Set to 1 if Value is Found in Organization Table. Remains at Ø if Not Found
SUB-TOTAL-HOLD	Used in Search Routine to go Through Entire Table
HOLD-ORGN-CODE	Used in Search Routine. Contains the Organization Code that is Being Searched for
METER-EDIT	Used for Editing Meter Reading Changes
PRINT-ALL-SW	Used by Reports to Suppress Duplicate Information. If Contains Ø, All Information is Printed. If Contains 1, Only Change Information is Printed.
DOLL-EDIt	Used to Edit Dollar Amounts with 2 Decimal Positions
DOLL-EDIT-3	Used to Edit Dollar Amounts with 3 Decimal Positions

SECTION 3.3.4

PARAGRAPH EXPLANATIONS

EQUIPMENT INVENTORY CHANGES

Program Concept

The following is a conceptualized idea of how the change program functions. It is not intended to be a detailed document, but rather a reference to be used with the program specifications, the actual program listing, and the input record.

Paragraph Number(s)	Function
100 - 199	Initialization Routine
200	Open Files
210	Build Organization Table
211 - 212	Read the Change Records and Move into Working Storage
213	Heading Check Routine - Produces Appropriate Headings for All Reports
214	Checks Record Type and Branches to Appropriate Main-line Processing
250	Produces Report Format One (EMIRØ3)
260	Produces Report Format Two (EMIRØ4)
270	Checks Which Record Type for Report Format Three (EMIRØ5)
271	Record Type "30" Report EMIRØ5
272	Record Type "40" Report EMIRØ5
273	Record Type "50" Report EMIRØ5
275	Blanks out Repetitious Information on Equipment and Performs Headings Where Appropriate
279	Record Type "60" Report EMIRØ5
281	Record Type "70" Report EMIRØ6
290	Record Type "80" Report EMIRØ7
399	End of Job

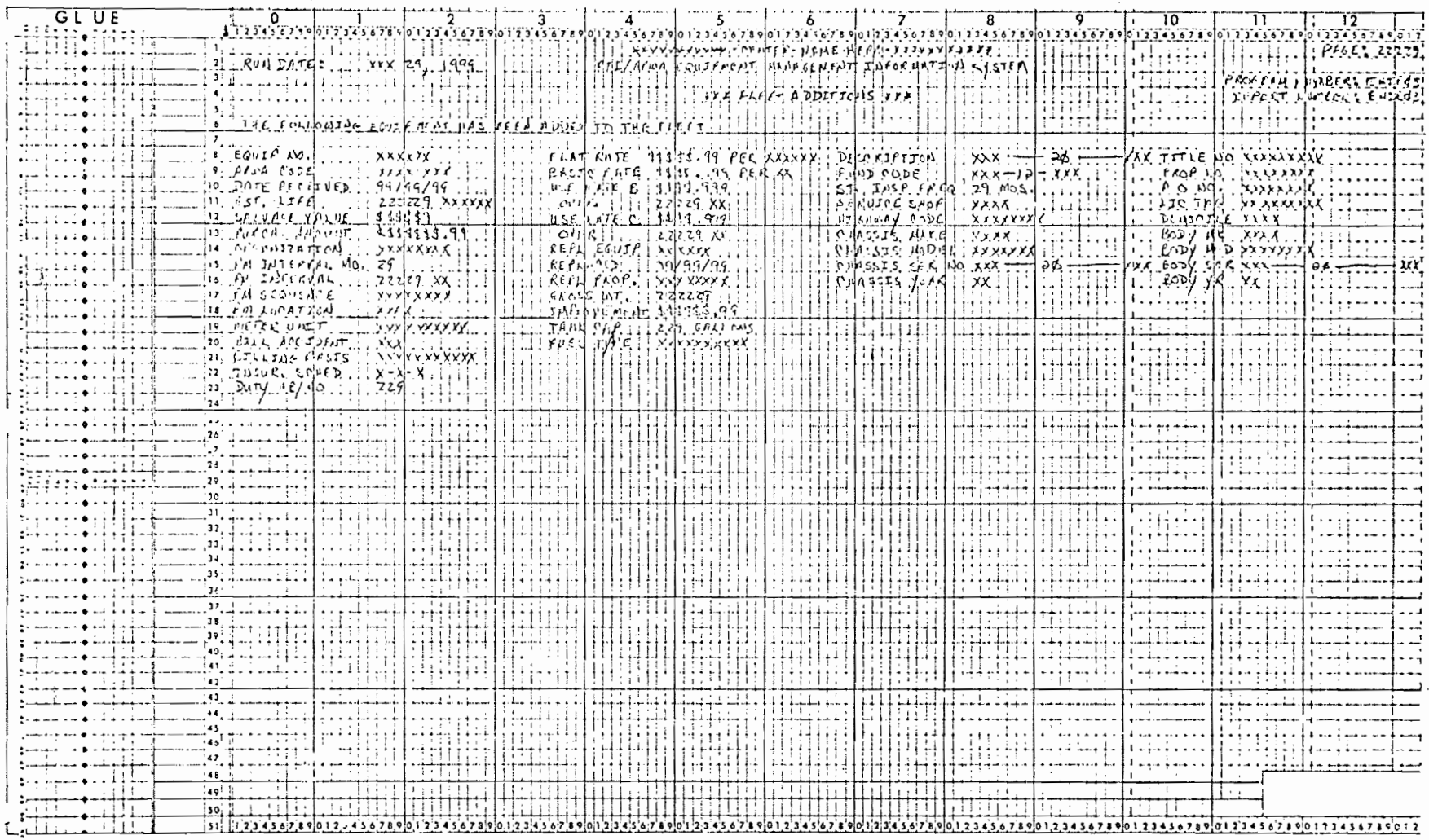
401 - 428	Produces Footing Information for Record Type "20", Report EMIRØ4
602	Search for Correct Organization Name to Match Number on File
603	Produces Footing Information for Record Type "20" Report EMIRØ4
900 - 970	Input/Output Routines and Heading Print Information

SECTION 3.3.5

REPORT LAYOUTS

EQUIPMENT INVENTORY CHANGES

EMIRØ3 - FLEET ADDITIONS



EMIRØ4 - FLEET REMOVALS

GLUE

XXXXXXXXXX-CENTER-NAME-HERE-XXXXXXXXXX

PAGE: [illegible]

RUN DATE: XXX 29, 1999

PTI/M/WA EQUIPMENT MANAGEMENT INFORMATION SYSTEM

TROGRAM NUMBER: [illegible]

REPORT NUMBER: [illegible]

XXX EQUIPMENT REMOVED FROM FLEET XXX

THE FOLLOWING EQUIPMENT HAS BEEN REMOVED FROM THE FLEET

EQUIP. NUMBER	DESCRIPTION	MAKE	CLASS CODE	ASSIGNED ORGANIZATION	ORGN. CODE	CURRENT METER	CURRENT VALUE	OPERATING AND MAINT. $ LTD	DEPRECIAT. AND INSUR. $ LTD
XXXXXX	XXX — 20 — XXX	XXXX	XXXXXXXX	XXXXXXXXXXXXXXX	XXXXXX	222999.9	$$$$99	$$$$$99.99	$$$$$99.99

MISCELLANEOUS DESCRIPTIVE:

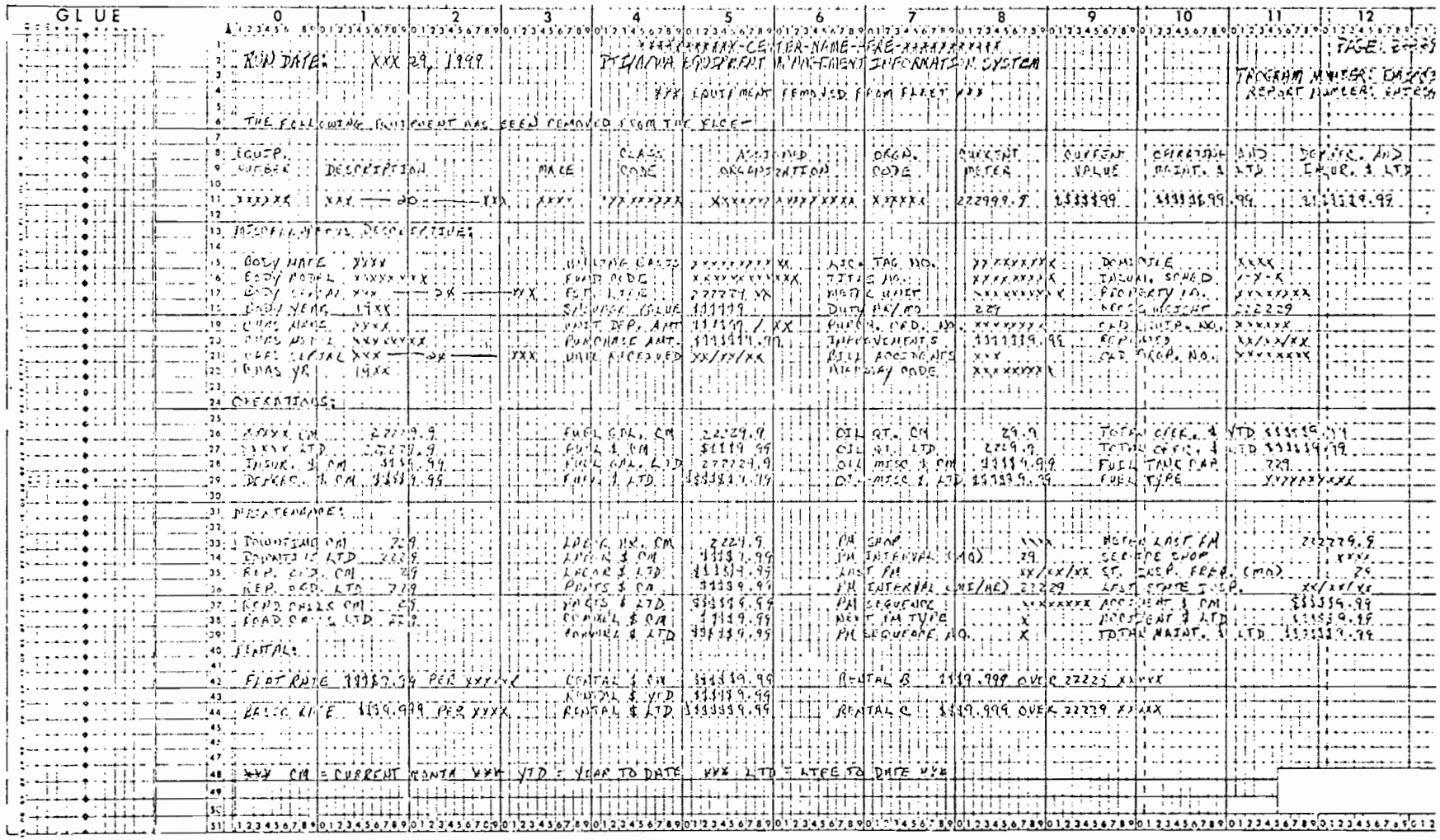
BODY MAKE	XXXX	UNLOADING BASIS	XXXXXXXXXXX	LIC. TAG NO.	XXXXXXXXX	DOMICILE	XXXX
BODY MODEL	XXXXXXXX	FUND CODE	XXXXXXXXXXXX	TITLE NO.	XXXXXXXXX	INSUR. SCHED.	X-X-X
BODY SERIAL	XXX — 20 — XXX	EST. LIFE	222229 XX	METER UNIT	XXXXXXXXX	PROPERTY NO.	XXXXXXXX
BODY YEAR	19XX	SALVAGE VALUE	$$$$99	DUTY HR/MO	229	GROSS WEIGHT	222229
CHAS MAKE	XXXX	UNIT DEP. AMT	$$$$99 / XX	PURCH. ORD. NO.	XXXXXXXX	OLD EQUIP. NO.	XXXXXX
CHAS MODEL	XXXXXXXX	PURCHASE AMT.	$$$$$99.99	IMPROVEMENTS	$$$$$99.99	REPLACED	XX/XX/XX
CHAS SERIAL	XXX — 20 — XXX	DATE RECEIVED	XX/XX/XX	BILL ACCIDENTS	XXX	OLD PROP. NO.	XXXXXXXX
CHAS YR	19XX			AIRWAY CODE	XXXXXXXXX		

OPERATIONS:

XXXXX CM	22229.9	FUEL GAL. CM	22229.9	OIL QT. CM	29.9	TOTAL OPER. $ YTD	$$$$$9.99
XXXXX LTD	22229.9	FUEL $ CM	$$$$9.99	OIL QT. LTD	2229.9	TOTAL OPER. $ LTD	$$$$$9.99
INSUR. $ CM	$$$$9.99	FUEL GAL. LTD	222229.9	OIL MISC $ CM	$$$$9.99	FUEL TANK CAP	229
DEPRECIAT. $ CM	$$$$9.99	FUEL $ LTD	$$$$$9.99	OIL MISC $ LTD	$$$$$9.99	FUEL TYPE	XXXXXXXXXX

MAINTENANCE:

DOWNTIME CM	229	LABOR HR. CM	2229.9	PM SHOP	XXXX	METER LAST PM	222229.9
DOWNTIME LTD	2229	LABOR $ CM	$$$$9.99	PM INTERVAL (MO)	29	SERVICE SHOP	XXXX
REP. ORD. CM	29	LABOR $ LTD	$$$$9.99	LAST PM	XX/XX/XX	ST. INSP. FREQ. (MO)	29
REP. ORD. LTD	229	PARTS $ CM	$$$$9.99	PM INTERVAL (MI/HR)	22229	LAST STATE INSP.	XX/XX/XX
ROAD CALLS CM	29	PARTS $ LTD	$$$$$9.99	PM SEQUENCE	XXXXXXXX	ACCIDENT $ CM	$$$$$9.99
ROAD CALLS LTD	229	COMMRL $ CM	$$$$9.99	NEXT PM TYPE	X	ACCIDENT $ LTD	$$$$$9.99
		COMMRL $ LTD	$$$$$9.99	PM SEQUENCE NO.	X	TOTAL MAINT. $ LTD	$$$$$9.99



RENTAL:

FLAT RATE	$$$$9.99 PER XXXXX	RENTAL $ CM	$$$$$9.99	RENTAL B	$$$9.999 OVER 22229 XXXXX
		RENTAL $ YTD	$$$$$9.99		
BASIC RATE	$$$9.999 PER XXXX	RENTAL $ LTD	$$$$$9.99	RENTAL C	$$$9.999 OVER 22229 XXXXX

XXX CM = CURRENT MONTH XXX YTD = YEAR TO DATE XXX LTD = LIFE TO DATE XXX

EMIRØ5 - FLEET MODIFICATIONS

EMIRØ6 - DEADLINED VEHICLES

EMIRØ7 - FLEET DELETIONS

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GLUE

RUN DATE: XXX 29, 1979 — PTS/AFVA EQUIPMENT MANAGEMENT INFORMATION SYSTEM — XXXX-CENTER-NAME-HERE-XXXX — PAGE: 2-27

XXX FLEET INVENTORY DATA MODIFICATIONS XXX — PROGRAM NUMBER: EMIR05 — REPORT NUMBER: EMIR05

INVENTORY DATA HAS BEEN CHANGED ON THE FOLLOWING VEHICLES AS INDICATED

EQUIP. NUMBER	DESCRIPTION	AFVA MAKE CODE	ASSIGNED ORGANIZATION	ORGN. CODE	FIELD CHANGED	OLD CONTENTS	NEW CONTENTS
XXXXXX	XXX — 24 — XXX	XXXX	XXXXXXXX XXX — 18 — XXX	XXXXXX	XXXXXXXXX	XXX — 18 — XXX	XXX — 19 — XXX

Same as Above EMIRØ5

XXX VEHICLES DEADLINED MORE THAN SIX MONTHS XXX — REPORT NUMBER: EMIR06

THE FOLLOWING EQUIPMENT HAS BEEN DEACTIVATED MORE THAN SIX MONTHS

EQUIP. NUMBER	DESCRIPTION	AFVA MAKE CODE	ASSIGNED ORGANIZATION	ORGN. CODE	DATE IN SERVICE	CURRENT METER	CURRENT VALUE	TOTAL COSTS	DEACTIVATED
XXXXXX	XXX — 24 — XXX	XXXX	XXXXXXXX XXX — 18 — XXX	XXXXXX	XX/XX/XX	2222229	11111.99	11111.11	XX/XX/XX

Same as Above EMIRØ5

XXX INVENTORY FILE DELETIONS XXX — REPORT NUMBER: EMIR07

THE FOLLOWING EQUIPMENT HAS BEEN REMOVED FROM THE MASTER INVENTORY FILE (EMIRØ1).

EQUIP. NUMBER	DESCRIPTION	AFVA MAKE CODE	ASSIGNED ORGANIZATION	ORGN. CODE	DATE IN SERVICE	STATUS CODE	STATUS DESCRIPTION	DATE LAST STATUS CHANGE
XXXXXX	XXX — 24 — XXX	XXXX	XXXXXXXX XXX — 18 — XXX	XXXXXX	XX/XX/XX	X	XX — 11 — XX	XX/XX/XX

SECTION 3.4

EQUIPMENT INVENTORY SELECT

EMIPØ4

SECTION 3.4.1

PROGRAM NARRATIVE

EQUIPMENT INVENTORY SELECT

EQUIPMENT INVENTORY SELECT - PROGRAM EMIPØ4

General Description

The select program will accept up to 50 select cards indicating the types of equipment and reports desired. The next program (EMIPØ5) in sequence produces the reports selected in this program. This program reads the 50 cards and builds a table consisting of select information. The Equipment Inventory Master File is then read and checked against the entries in the table. If a match is found a record is produced with the table information added.

The program is able to select an equipment number, organization number and/or APWA class. The report for these may be either summary or detail. The program allows for the word "All" to be substituted for an equipment number and will produce a report on all master records. The APWA class to be selected can be broken into any level of detail. Normally all 8 positions of the APWA class are used, but the program will allow any position to contain a space so that general classes of vehicles may be listed. As an example, if the person requesting the report wanted to see only SEDANS he would enter IA_____ and all vehicles with a "IA" in the first two positions of the APWA class would be selected. Additional information can be found in the detailed information and the program listing.

SECTION 3.4.2

PROGRAM SPECIFICATIONS

EQUIPMENT INVENTORY SELECT

PROGRAM SPECIFICATIONS

REPORT SELECT PROGRAM EMIPØ4

I. Purpose

The purpose of this program is to select those vehicles from the master file that match any of the entries on the select cards, produce a tape with those records on it to be used by the report program EMIPØ5.

II. System Input

1. Master Equipment Inventory File (EMIFØ4)
2. Select Cards

III. System Output

1. Select File
2. Edit/Error Report

IV. Processing

1. Read the select cards (maximum of 50) into a program table. Edit each one as follows:

Column	Contents
1	"S" or "D" -- Summary or Detail
2-7	"ALL" or Equipment # or Spaces
8-15	No Edit
16-21	Numeric

2. List each card on Edit/Error list.
3. If an error is found in any field, place asterisks under the field in error, enter an appropriate error message, do not place the card in the table.
4. If no errors on the card, enter the data into the select table.
5. Each table entry should contain 22 positions. The first 21 contain the information from the select card, the last position

should be set to Ø and changed to 1 if a match is found for the master inventory file.

6. Read a record from the master inventory file. Compare the equipment number, APWA code, and organization code against each table entry. If a table entry contains "ALL" in the equipment number, put all masters out, disregarding any further checks. At end of file, go to step 12.
7. The APWA code in the table may contain embedded spaces. It is necessary to mask out the APWA code on the master to match the APWA code on the select card.
8. If a match is found, place a 1 in the 22nd position on the table, move the first 21 positions to the output area, and move the master record to the next 700 positions.
9. Write a 721 byte record to the select tape.
10. Continue through the rest of the table, since more than one match may be found.
11. After searching the entire table, go to Step 6.
12. Search the table for any entries containing a Ø in the 22nd position. If any are found, list them on the error report with the message, "NO MATCH FOUND."
13. Generate an output record for each of these entries, changing the first position of the record from an "S" or "D" to a "T".
14. After searching the entire table, stop processing.

SECTION 3.4.3

DEFINITIONS

EQUIPMENT INVENTORY SELECT

SELECTED SWITCHES, COUNTERS AND DATA ELEMENTS USED BY EMIPØ4

Switches, Counters, Data Elements	Use
VALID-SORD	First position of each select card must contain either an S (Summary) or D (Detail)
AST-LN	Used to place astericks under error fields
ERRORS-ALL	All possible error messages used by this program
CD-COLS	Used to indicate card columns in error
WS-TOP-OP-PAGE	Used to indicate number of lines per page
WS-TABLE-COUNT	Counter for number of select cards
CARD-TABLE	Contains all select cards
TAB-MATCH (1-50)	Normally contains a 1 after all processing is completed. If this field remains Ø it indicates that no match was found for this select card, and it will produce a no-match report.

SECTION 3.4.4

PARAGRAPH EXPLANATIONS

EQUIPMENT INVENTORY SELECT

Program Concept

The following is a conceptualized idea of how the select program functions. It is not intended to be a detailed document, but rather a reference to be used with the program specifications, the actual program listing, and the input data.

Paragraph Number(s)	Function
X100 - X199	Initialization routine open files.
X200 -	Start of processing - Read select cards to build a table.
X390 -	End of job routine.
X400 - X403	Edit the select card.
X404 -	Place valid cards in the table.
X405 -	Begin matching the master file with the table.
X406 -	Check if any select cards found no matches on the master file.
X407 -	End of routine.
X600 - X650	Performs the actual check for table/master match.
X675 -	Routine that checks all table entries for no matches.
X700 -	Moves astericks for error indications.
X900 - X913	Input/Output routines

SECTION 3.4.5

REPORT LAYOUTS

EQUIPMENT INVENTORY SELECT

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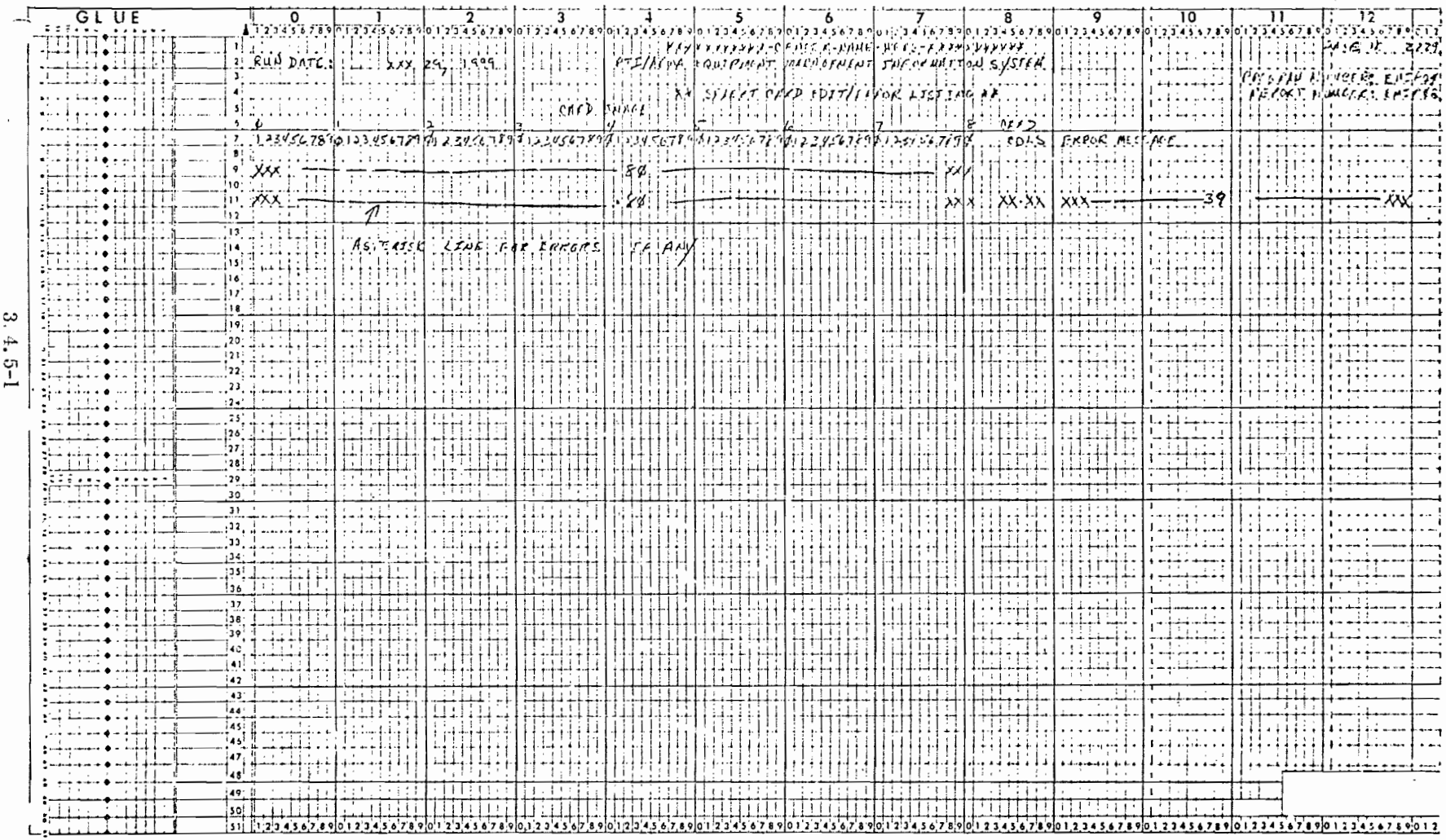
EMIR08 - EDIT REPORT



SECTION 3.5

EQUIPMENT INVENTORY SELECT PRINT

EMIPØ5

SECTION 3.5.1

PROGRAM NARRATIVE

EQUIPMENT INVENTORY SELECT PRINT

EQUIPMENT INVENTORY SELECT PRINT - PROGRAM EMIPØ5

General Description

The select print program reads the file produced by the select program and generates summary and detail reports. There is a page break for each type of report selected. Selection can be made on either APWA class, equipment number, and/or organization number. The other alternative is to produce a listing of all vehicles. This complete listing can be either a summary or detail. Complete instructions can be found in EMIPØ4, the select program, for filling out the request form.

SECTION 3.5.2

PROGRAM SPECIFICATIONS

EQUIPMENT INVENTORY SELECT PRINT

PROGRAM SPECIFICATIONS

REPORT PROGRAM EMIPØ5

I. Purpose

The purpose of this program is to read the sorted select tape produced by EMIPØ and generate the appropriate Summary, Detail, or No Match reports.

II. System Input

1. Sorted Select Tape (Sort on: Report Type (1-1)
   Equipment # (2-7)
   APWA Code (8-15)
   Organization # (16-21)
   Equipment # (22-27)
2. Organization Table

III. System Output

1. Summary Report
2. Detail Report
3. No Match Report

IV. Processing

1. Read the organization records into a table.
2. Read a record from the select tape.
3. If the first character is an "S," produce the Summary Report.
4. If the first character is a "D," produce the Detail Report.
5. If the first character is a "T," produce the No-Match Report.
6. Under criteria for the report, enter the following:
   (a) If the equipment number contains "ALL"
   Criteria = ALL EQUIPMENT
   (b) If the equipment number contains anything
   Criteria = EQUIPMENT NUMBER xxxxxx

(c) If the APWA Code contains anything
Criteria = Code xxxxxxxx

(d) If the Organization Code contains anything
Criteria = ORGANIZATION # xxxxxx

There may be any combination of these on the select tape. Change the headings anytime the select card changes.

7. Go to Step 2.

SECTION 3.5.3

DEFINITIONS

EQUIPMENT INVENTORY SELECT PRINT

SELECTED SWITCHES, COUNTERS AND DATA ELEMENTS USED BY EMIPØ5

Switches, Counters, Data Elements	Use
CARD-REC-TYPE	Used to check if record is for the organization table or APWA table
WS-TABLE-INFO	This information was appended by EMIPØ4 and is used to determine the headings and/or breaks needed by the print program
TABLE-DUMMY	Month names to be used in report handling
ORGN-TABLE	Table to hold all organization codes and names for report use
APWA-TABLE	Table of names associated with the first two Characters of the APWA code
APWA-TABLE-COUNT	Total number of entries in APWA table
ORGN-TABLE-COUNT	Total number of entries in the organization table
SUB-TOTAL-HOLD	Used to accumulate intermediate sub-totals
SRCH-SWITCH	Set to zero prior to organization table search of the correct organization name. If the name is found in the table this switch is set to one. If the name is not found the switch remains Ø
SRCH-SUB	Subscript used for searching the table
HOLD-SUB	The subscript that points to the correct organization code/name

SECTION 3.5.4

PARAGRAPH EXPLANATIONS

EQUIPMENT INVENTORY SELECT PRINT

EMIPØ5

Program Concept

The following is a conceptualized idea of how the select print program functions. It is not intended to be a detailed document, but rather a reference to be used with the program specifications, the actual program listing, and the input data.

Paragraph Number (s)	Function
X100 -	Initialization routine
X200 -	Perform opening of files
X201 -	Read and build the APWA and ORGANIZATION tables
X202 -	Read the file created by EMIPØ4
X203 -	Check for major type of report - summary, detail or no-match go to appropriate section
X390 -	End of job processing
X400 -	This is the detailed paragraph that builds the tables read in X201
X401 -	Start of detail report
X402 -	Detail line one
X403-X404	Detail line two
X405-X411	Detail lines three through nine
X412-	Subheading "OPERATIONS"
X413-X416	Detail lines ten through thirteen
X417	Subheading "MAINTENANCE"
X418-X428	Detail lines twenty-one through twenty three and footer information
X429 -	Summary report
X430 -	No match report
X601 -	All headings are produced here

X602-	Organizations name search
X603-	Footer information on reports
X900-	File opening
X901-X952	Input/Output routines

SECTION 3.5.5

REPORT LAYOUTS

EQUIPMENT INVENTORY SELECT PRINT

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EMIR09 - INVENTORY DETAIL REPORT

GLUE

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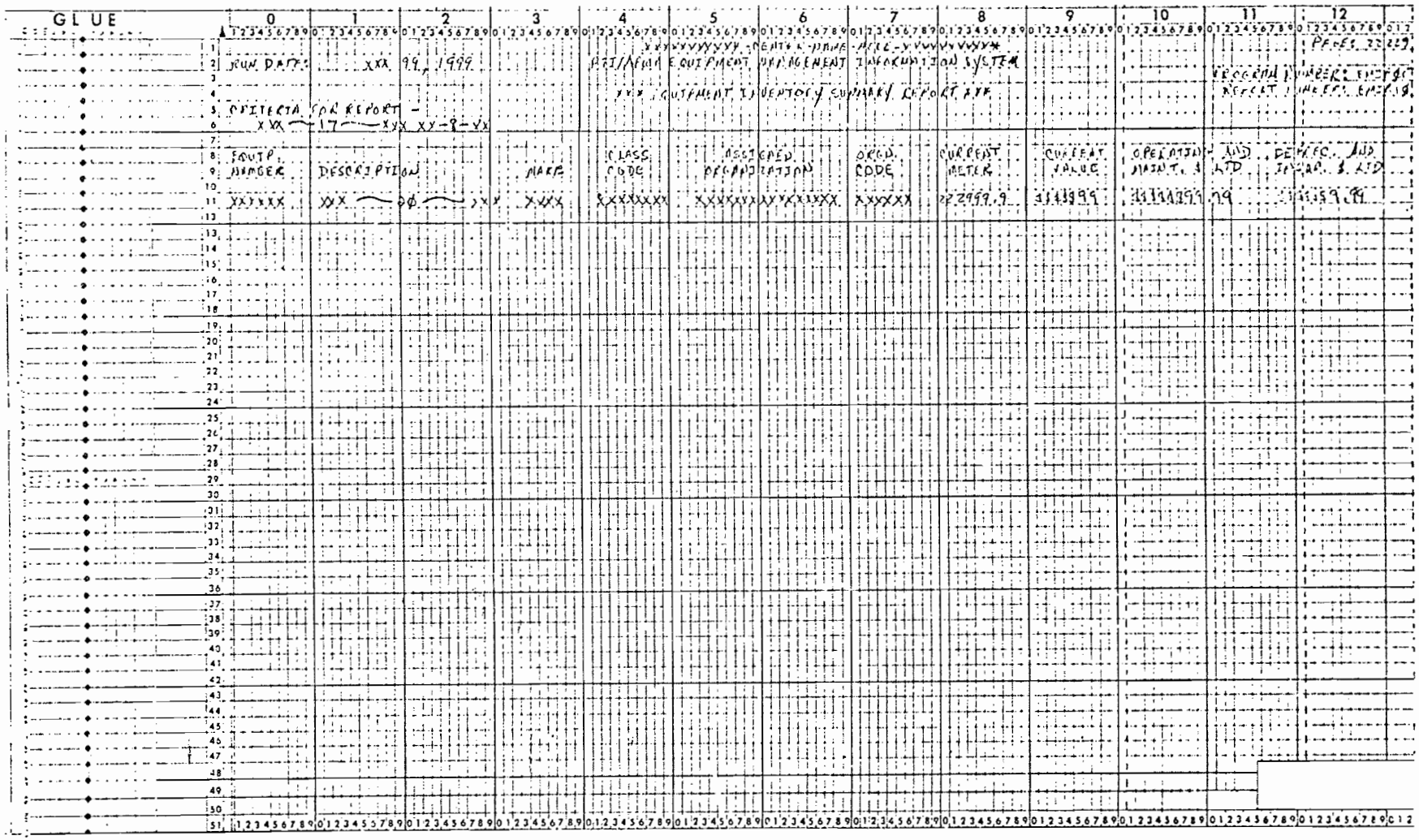
EMIRIØ - SUMMARY INVENTORY REPORT



EMIRII - NO MATCH INVENTORY

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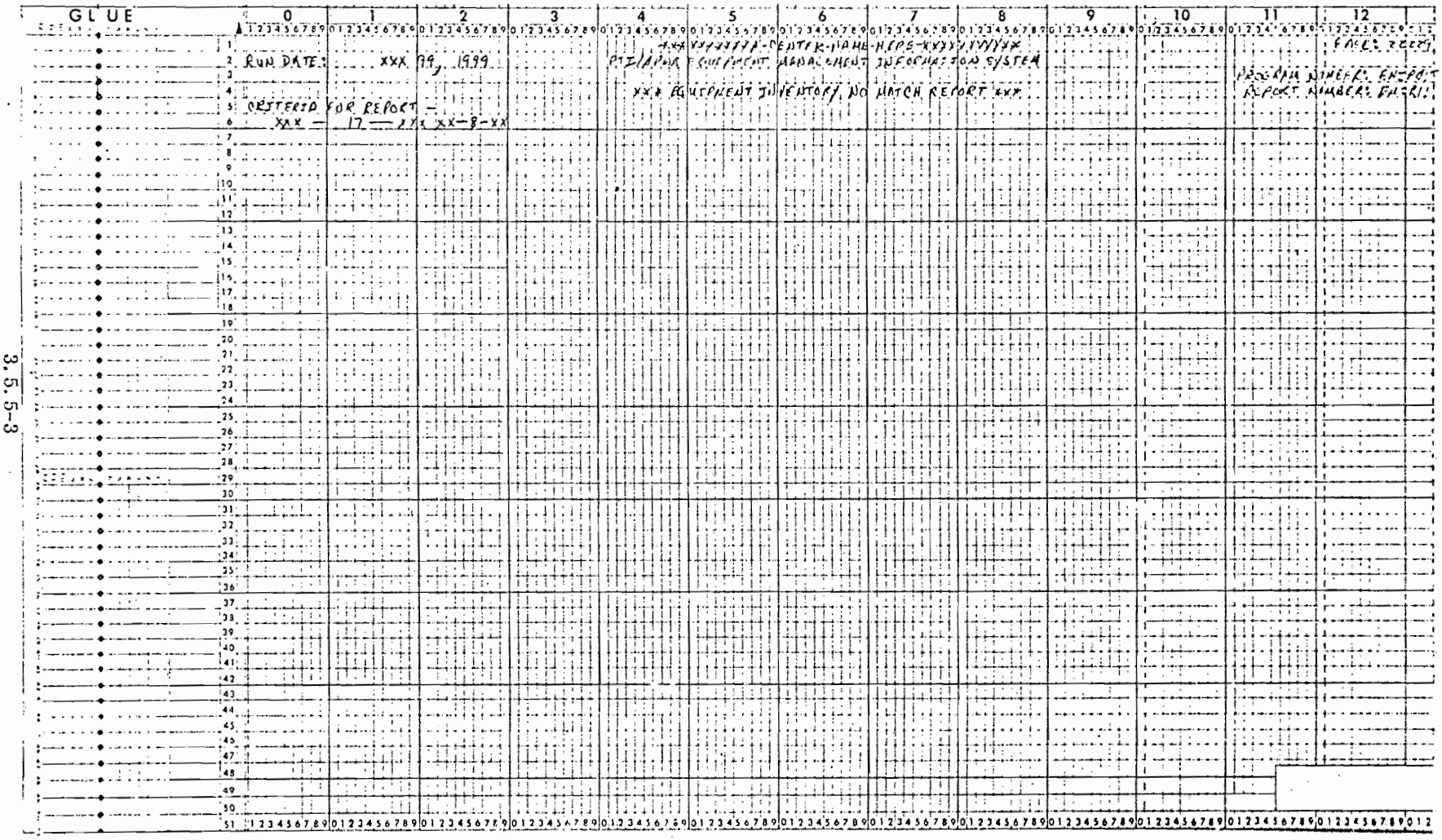

SECTION 3.6

EQUIPMENT INVENTORY FLEET ASSIGNMENT SUMMARY

EMIPØ6

SECTION 3.6.1

PROGRAM NARRATIVE

EQUIPMENT INVENTORY FLEET ASSIGNMENT SUMMARY

General Description

The purpose of this program is to provide a report of the number of pieces of equipment for each organization by APWA basic classification. To accomplish this, the program uses a copy of the inventory master file (EMIF'Ø) which was produced as an output of the sort of the original inventory master file (EMIFØ4). The sort places the data in equipment number order within organization code. The organization name is taken from a table tape.

SECTION 3.6.2

PROGRAM SPECIFICATIONS

EQUIPMENT INVENTORY FLEET ASSIGNMENT SUMMARY

FLEET ASSIGNMENT SUMMARY

I. Purpose

This program reads the equipment inventory master file and summarizes classes of vehicles within organizations and then totals all classes of vehicles.

II. Inputs

Organization Table

Equipment Inventory Master File

III. Outputs

Fleet Assignment Summary Report

IV. Processing

1. Initialization. The program begins by obtaining the system date and placing it in the page heading after converting it to an alpha date. If then opens the printer and table tape files.

2. Load Organization Table. The table tape is read at the end of file on this tape, the file is closed and the inventory master file is opened. The record is then sequence checked. If the item read is not an organization record, it is bypassed by returning to the start of this paragraph. If it is, the organization data is loaded into the organization table. A check is made that not more than 75 items are added to the organization table.

3. Clear Counters. The program then sets the various (9) line and final total counters to zero.

4. Mainline Processing.

A. Read a Master Record. An inventory master record is read. If end of file is detected, the program goes to the end processing routine. If the status of the record is not active or deactive (status code a blank or "3"), the record is bypassed by returning to the start of this paragraph. A check is then made for an organization code change. If a change is present, the program performs the print on organization line routine. It then checks for a legitimate APWA Major Category code. If not present, the record is bypassed by returning to the start of this paragraph. Finally, if the APWA Major Category is 8 or 9, the program makes it 7 or 8. One is then added to one of the line counters using the APWA Major Category as a subscript. The program then goes back to the start of this paragraph to process another record.

B. Print an Organization Line. The organization code of the previous record is saved and the organization code of the present

record is moved into place in the field used to check control break. A check is made if at the bottom of page and if it is, a page heading is performed. The program then accumulates the total for this organization and adds to each of the 9 separate final totals which are printed at the end processing routines. The organization line is then set up and each of the 8 separate APWA Major Category totals and the line sum (the ninth accumulator in the table) by a loop table look-up routine of the accumulator table. These accumulators are zeroed during look-up. The line is then printed and the routine ends.

5. End Processing. The final organization line is printed by performing the print an organization line routine. The total line is then moved to print and the total of the total line is calculated and moved to print. The total line is then printed and end of report line (sign-off) printed at the bottom of the page and the top of the next page. The files are then closed and the program ends.

6. Page Heading. This subroutine skips to the top of a page and writes the various page heading lines.

SECTION 3.6.3

DEFINITIONS

EQUIPMENT INVENTORY FLEET ASSIGNMENT SUMMARY

SELECTED SWITCHES, COUNTERS AND DATA ELEMENTS USED BY EMIPØ6

Switches, Counters, Data Elements	Use
MASTER-IN-AREA	The fields for the input inventory master file.
TABLE-CARD	The fields for the organization record only of the table file.
MAX-LINES	Constant of the total lines in a page used in conjunction with LINE-SKIP for sign-off message.
LINE-SKIP	A calculated field to determine the number of lines to be skipped to print the sign-off message at the bottom of the last page.
LNE-CNT	The accumulator containing the number of double lines written in a page at any one time.
NO-OF-ITEMS	Subscript used to load the organization table.
SUB	Subscript used in numerous table look-ups and table processing.
TEST-ORG-TYPE-FOR-SEQ	Used to sequence check the inventory master file.
PG-CNT	Accumulator for page number in page heading.
SV-USE	Field used to check against current record to test for control break.
EQUIP-CNT	The accumulators for determining the count for each organization line and the final total lines.

Switches, Counters, Data Elements	Use
LINES-PER-PAGE	Constant of the number of double space lines allowed in a page. Used in conjunction with LNE-CNT to determine if at the bottom of a page.
ORGAN-TABLE	A table of 75 items containing the names of each organization loaded from the table tape.
EXCEED-TABLE-INDICATOR	Switch set on if over 75 organization table items read. It is used to bypass added table items.
DATE-FIX	Area into which the systems date is read for further processing.
MONTH-TABLE	Table of alpha months (3 digits) used to convert the numeric month to alpha for the page heading.

SECTION 3.6.4

PARAGRAPH EXPLANATIONS

EQUIPMENT INVENTORY FLEET ASSIGNMENT SUMMARY

EMIPØ6

PROGRAM CONCEPT

The following is a conceptualized idea of how the fleet assignment program functions. It is not intended to be a detailed document, but rather a reference to be used with the program specifications, the actual program listing, and the input forms.

Paragraph Numbers	Function
00 to 05	Initialization, load the organization tables from the table tape, open (and close table file) files and clear line and final total accumulators.
06	Read inventory master bypassing not needed records. Determine if a control break, edit the APWA Major Category code and add 1 to the proper line accumulator.
10 to 30	Write a detail line.
35	Page heading routine.
40 to 60	Processing at end of job by printing total line of detail report and sign-off lines, close files and stop run.

SECTION 3.6.5

REPORT LAYOUTS

EQUIPMENT INVENTORY FLEET ASSIGNMENT SUMMARY

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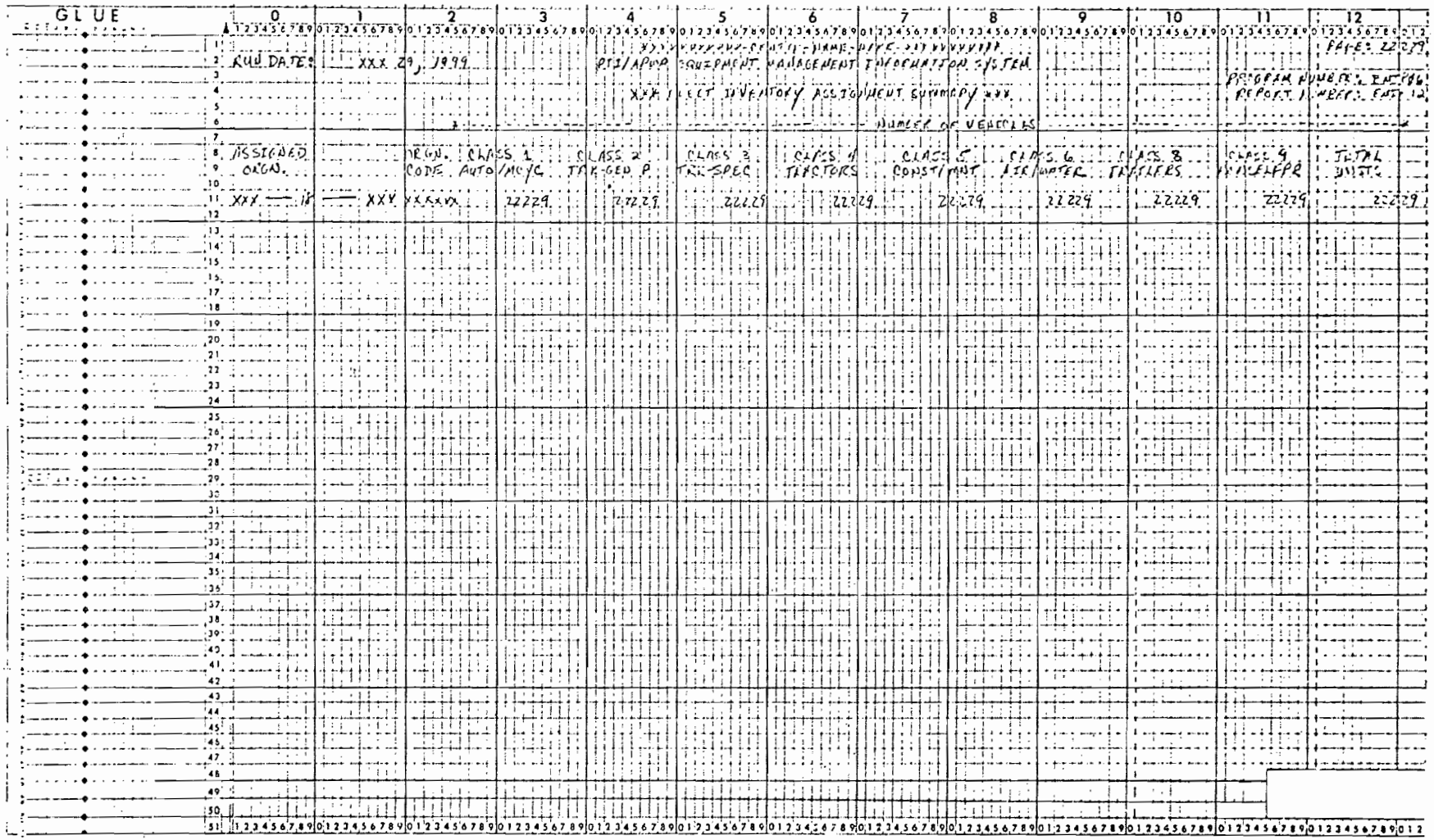
EMIR12 - EQUIPMENT SUMMARY



3.6.5-1

APPENDIX A

FILE DESCRIPTIONS AND RECORD LAYOUTS

FILE DESCRIPTION FORM

SYSTEM NAME: PTI/APWA EQUIPMENT MANAGEMENT INFORMATION SYSTEM

COMPONENT NAME: Equipment Inventory

FILE NAME: Equipment Inventory Transaction (EMIFØ1, EMIFØ2, EMIFØ3)

VOLUME DEVICE: Card Reader (EMIFØ1) Disk (EMIFØ2, EMIFØ3)

FILE ORGANIZATION: Sequential

FILE NUMBER OF VOLUME(FIRST, SECOND, ETC.): N/A

RECORD FORMAT: Fixed length

RECORD LENGTH: 8Ø

RECORDS PER BLOCK: 1 (EMIFØ1), 1Ø (EMIFØ2, EMIFØ3)

FILE RETENTION:

a. TEMPORARY [X] EMIFØ2, EMIFØ3

b. PERMANENT [X] EMIFØ1 RETENTION PERIOD: 6 weeks

RECORD RELATIVE KEY POSITION: N/A

KEY LENGTH: N/A

PHYSICAL BLOCKSIZE: 8Ø (EMIFØ1), 8ØØ (EMIFØ2, EMIFØ3)

MAXIMUM NUMBER OF LOGICAL RECORDS ON FILE: one card per transaction

CREATING PROGRAM: none (EMIFØ1), EMIUØ1 (EMIFØ2), EMIPØ1 (EMIFØ3)

REFERENCING PROGRAM(S):

PROGRAM	ACCESS METHOD
EMIUØ1	Sequential
EMIPØ1	"
EMIPØ2	"

RECORD LAYOUT

FILE NAME: Equipment Inventory Transaction RECORD LENGTH: 8Ø

FILE NUMBER: EMIFØ1 / EMIFØ2/ EMIFØ3 BLOCKING FACTOR: 1Ø

Field Number	Field Name	Position	Length	Picture or Remarks
1	Transaction Type	1	1	'2' or '5'
2	Equipment Number	2-7	6	X (6)
3	APWA Code	8-15	8	Refer to APWA Manual
4	Date Received	16-21	6	MMDDYY
5	Estimated Life	22-24	3	999
6	Life Code	25	1	'1', '2' or '3'
7	Salvage Value	26-30	5	9(5)
8	P.O. Amount	31-38	8	9(6)V99
9	Assigned Organization Code	39-44	6	9(6)
10	P.M. Interval (Months)	45-46	2	9(2)
11	P.M. Interval (Miles/Hours)	47-51	5	9(5)
12	P.M. Sequence	52-59	8	X(8)
13	Assigned P.M. Location	60-63	4	9(4)
14	Meter Unit	64	1	'H', 'M' or 'X'
15	Accident Billing	65	1	'Y' or 'N'
16	Billing Basis	66	1	'R' or 'D'
17	Insurance Schedule	67-69	3	X(3)
18	Normal Duty Hours	70-72	3	9(3)
19	Filler	73-79	7	Spaces
20	Card Type	80	1	Always '1'
		A-2		

RECORD LAYOUT

ILE NAME: Equipment Inventory Transaction RECORD LENGTH: 80

ILE NUMBER: EMIF01/EMIF02/ EMIF03 BLOCKING FACTOR: 10

Field Number	Field Name	Position	Length	Picture or Remarks
1	Transaction Type	1	1	'2' or '5'
2	Equipment Number	2-7	6	X(6)
3	Flat Rental Rate	8-13	6	9(4)V99
4	Flat Rate Code	14	1	'M', 'D' or 'C'
5	Basic Use Rate	15-20	6	9(3)V9(3)
6	Use Rate B (Dollar Charge)	21-26	6	9(3)V9(3)
7	Lower Limit for Rate B	27-31	5	9(5)
8	Use Rate C (Dollar Charge)	32-37	6	9(3)V9(3)
9	Lower Limit for Rate C	38-42	5	9(5)
10	Old Equipment Number	43-48	6	X(6)
11	Date Released	49-54	6	MMDDYY
12	Old Property Control Number	55-62	8	9(8)
13	GVWR (Pounds)	63-68	6	9(6)
14	Improvements Added	69-75	7	9(5)V9(2)
15	Fuel Tank Capacity	76-78	3	9(3)
16	Fuel Type	79	1	"A-E"
17	Card Type	80	1	Always '2'

RECORD LAYOUT

FILE NAME: Equipment Inventory Transaction RECORD LENGTH: 8Ø

FILE NUMBER: EMIFØ1/EMIFØ2/ EMIFØ3 BLOCKING FACTOR: 1Ø

Field Number	Field Name	Position	Length	Picture or Remarks
1	Transaction Type	1	1	'2' or '5'
2	Equipment Number	2-7	6	X(6)
3	Description	8-27	20	X(2Ø)
4	Fund Number	28-39	12	9(12)
5	State Inspection Frequency (Months)	40-41	2	9(2)
6	Assigned Service Location	42-45	4	9(4)
7	Highway Code	46	1	'1', '2' or '3'
8	Chassis Mfr. Code	47-50	4	X(4)
9	Chassis Model Number	51-57	7	X(7)
10	Chassis Serial Number	58-77	20	X(20)
11	Chassis Model Year	78-79	2	9(2)
12	Card Type	80	1	Always '3'

RECORD LAYOUT

FILE NAME: Equipment Inventory Transaction RECORD LENGTH: 8Ø

FILE NUMBER: EMIFØ1/EMIFØ2 / EMIFØ3 BLOCKING FACTOR: 1Ø

Field Number	Field Name	Position	Length	Picture or Remarks
1	Transaction Type	1	1	'2' or '5'
2	Equipment Number	2-7	6	X(6)
3	Title Number	8-16	9	X(9)
4	Property Control Number	17-24	8	X(8)
5	Purchase Order Number	25-32	8	X(8)
6	License Tag Number	33-41	9	X(9)
7	Domicile Code	42-45	4	X(4)
8	Body Mfr. Code	46-49	4	X(4)
9	Body Model Number	50-57	8	X(8)
10	Body Serial Number	58-77	2Ø	X(2Ø)
11	Body Model Year	78-79	2	9(2)
12	Card Type	80	1	Always '4'
		A-5		

RECORD LAYOUT

FILE NAME: Equipment Inventory Transaction RECORD LENGTH: 80

FILE NUMBER: EMIF01/EMIF02/EMIF03 BLOCKING FACTOR: 10

Field Number	Field Name	Position	Length	Picture or Remarks
1	Transaction Type	1	1	'1', '3', '4', or '6'
2	Equipment Number	2-7	6	X(6)
3	Equipment Number	8-13	6	X(6)
4	User Organization	14-19	6	9(6)
5	Correct Meter Reading (New)	20-26	7	9(6)V9
6	Meter at Failure (Old)	27-33	7	9(6)V9
7	Filler	34-80	47	spaces

FILE DESCRIPTION FORM

SYSTEM NAME: PTI/APWA EQUIPMENT MANAGEMENT INFORMATION SYSTEM

COMPONENT NAME: Equipment Inventory

FILE NAME: EMIFØ4, EMIF1Ø Equipment Inventory Master

VOLUME DEVICE: Tape

FILE ORGANIZATION: Sequential

FILE NUMBER OF VOLUME (FIRST, SECOND, ETC.): 1st.

RECORD FORMAT: Fixed Length

FECORD LENGTH: 7ØØ

RECORDS PER BLOCK: 4

FILE RETENTION:

a. TEMPORARY [ ]

b. PERMANENT [X] RETENTION PERIOD: 6 weeks

RECORD RELATIVE KEY POSITION: N/A

KEY LENGTH: N/A

PHYSICAL BLOCKSIZE: 28ØØ

MAXIMUM NUMBER OF LOGICAL RECORDS ON FILE: 1 record per vehicle

CREATING PROGRAM: EMIPØ2

REFERENCING PROGRAMS(S):

PROGRAM	ACCESS METHOD
EMIPØ4	Sequential
EMIUØ4	Sequential
EMIPØ6	Sequential

DATE: June 27, 1975

PTI/APWA EQUIPMENT MANAGEMENT SYSTEM

FILE NAME: Equipment Inventory Master Record Length: 700

FILE NUMBER: EMIF04 BLOCKING FACTOR: 4

FIELD NO.	DATA ELEMENT NAME	POSITIONS	LENGTH	PICTURE OR REMARKS
1	Equipment Number	1-6	6	X(6)
2	APWA Code	7-14	8	Refer to APWA Manual
3	Organization Code	15-20	6	X(6)
4	Use Status Code	21	1	"blank, 1, 2, 3"
5	Date Received	22-27	6	MMDDYY
6	Estimated Life	28-30	3	S999V
7	Estimated Life Code	31	1	"1-3"
8	Salvage Value	32-36	5	S99999V
9	Purchase Order Amount	37-44	8	S9(6)V99
10	Unit Depreciation Amount	45-50	6	S999V999
11	PM Interval-Months	51-52	2	S99V
12	PM Interval-Meter Units	53-57	5	S9(5)V
13	PM Sequence	58-65	8	X(8)
14	PM Pointer	66	1	"1-8"
15	Assigned PM Location	67-70	4	X(4)

DATE: June 27, 1975

PTI/APWA EQUIPMENT MANAGEMENT SYSTEM

FILE NAME: Equipment Inventory Master Record Length: 7ØØ

FILE NUMBER: EMIFØ4 BLOCKING FACTOR: 4

FIELD NO.	DATA ELEMENT NAME	POSITIONS	LENGTH	PICTURE OR REMARKS
16	Meter Unit	71	1	"H", "M" or "X"
17	Bill Accident Repairs	72	1	"Y" or "N"
18	Billing Basis	73	1	"R" or "D"
19	Insurance Schedule	74-76	3	X(3)
2Ø	Normal Duty Hours Per Month	77-79	3	S999V
21	Seasonal Usage	8Ø	1	X
22	Flat Rate	81-86	6	S9999V99
23	Flat Rate	87	1	"M", "D" or "C"
24	Basic Use Rate	88-93	6	S999V999
25	Use Rate B	94-99	6	S999V999
26	Use Rate B Units	1ØØ-1Ø4	5	S9(5)V
27	Use Rate C	1Ø5-11Ø	6	S999V999
28	Use Rate C Units	111-115	5	S9(5)V
29	Old Equipment Number	116-121	6	X(6)
3Ø	Date Released	122-127	6	MMDDYY

DATE: June 27, 1975

PTI/APWA EQUIPMENT MANAGEMENT SYSTEM

FILE NAME: Equipment Inventory Master Record Length: 7ØØ

FILE NUMBER: EMIFØ4 BLOCKING FACTOR: 4

FIELD NO.	DATA ELEMENT NAME	POSITIONS	LENGTH	PICTURE OR REMARKS
31	Old Property Control Number	128-135	8	X(8)
32	GVWR-Pounds	136-141	6	S9(6)V
33	Improvement Added-Current Month	142-148	7	S99999V99
34	Improvement Added-Life to Date	149-156	8	S999999V99
35	Fuel Tank Capacity	157-159	3	S999V
36	Fuel Type	16Ø	1	X
37	Description	161-18Ø	2Ø	X(2Ø)
38	Fund Number	181-192	12	X(12)
39	Inspection Frequency-Months	193-194	2	S99V
4Ø	Assigned Service Location	195-198	4	X(4
41	Highway Code	199	1	"1-3"
42	Chassis Mfr. Code	2ØØ-2Ø3	4	X(4)
43	Chassis Model Number	2Ø4-21Ø	7	X(7)

DATE: June 27, 1975

PTI/APWA EQUIPMENT MANAGEMENT SYSTEM

FILE NAME: Equipment Inventory Master Record Length: 7ØØ

FILE NUMBER: EMIFØ4 BLOCKING FACTOR: 4

FIELD NO.	DATA ELEMENT NAME	POSITIONS	LENGTH	PICTURE OR REMARKS
44	Chassis Serial Number	211-23Ø	2Ø	X(2Ø)
45	Chassis Model/Year	231-232	2	last two digits of year
46	Title Number	233-241	9	X(9)
47	Property Control Number	242-249	8	X(8)
48	Purchase Order Number	25Ø-257	8	X(8)
49	License Tag Number	258-266	9	X(9)
50	Domicile Code	267-27Ø	4	X(4)
51	Body Mfr. Code	271-274	4	X(4)
52	Body Model Number	275-282	8	X(8)
53	Body Serial Number	283-3Ø2	2Ø	X(2Ø)
54	Body Model Year	3Ø3-3Ø4	2	last two digits of year
55	Current Meter Reading	3Ø5-311	7	S999999V9
56	Meter Reading Last Month	212-318	7	S999999V9
57	Meter Failure Flag	319	1	"Ø" or "1"
58	Meter Reading at Failure	32Ø-326	7	S999999V9

DATE: June 27, 1975

PTI/APWA EQUIPMENT MANAGEMENT SYSTEM

FILE NAME: Equipment Inventory Master Record Length: 7ØØ

FILE NUMBER: EMIFØ4 BLOCKING FACTOR: 4

FIELD NO.	DATA ELEMENT NAME	POSITIONS	LENGTH	PICTURE OR REMARKS
59	Meter Units Operated Current Month	327-332	6	S99999V9
6Ø	Meter Units Operated Last Month	333-338	6	S99999V9
61	Meter Units Operated - Life to Date	339-345	7	S999999V9
62	Date Last Status Change	346-351	6	MMDDYY
63	Downtime Hours-CM	352-355	4	S999V9
64	Downtime Hours-LTD	356-361	6	S99999V9
65	Insurance Cost-CM	362-366	5	S999V99
66	Insurance Cost-YTD	367-372	6	S9999V99
67	Insurance Cost-LTD	373-379	7	S99999V99
68	Current Book Value	38Ø-387	8	S999999V99
69	Depreciation-CM	388-393	6	S9(4)V99
7Ø	Depreciation-YTD	394-4ØØ	7	S9(5)V99
71	Depreciation-LTD	4Ø1-4Ø8	8	S9(6)V99
72	Fuel Consumption (Gal.)-CM	4Ø9-413	5	S9999V9
73	Fuel Consumption (Gal.)-YTD	414-419	6	S9(5)V9

DATE: June 27, 1975

PTI/APWA EQUIPMENT MANAGEMENT SYSTEM

FILE NAME: Equipment Inventory Master Record Length: 7ØØ

FILE NUMBER: EMIFØ4 BLOCKING FACTOR: 4

FIELD NO.	DATA ELEMENT NAME	POSITIONS	LENGTH	PICTURE OF REMARKS
74	Fuel Consumption (Gal.)-LTD	42Ø-426	7	S9(6)V9
75	Fuel Cost - CM	427-432	6	S9999V99
76	Fuel Cost - YTD	433-44Ø	8	S9(6)V99
77	Fuel Cost - LTD	441-448	8	S9(6)V99
78	Oil Consumption (Qts.)-CM	449-451	3	S99V9
79	Oil Consumption (Qts.)-YTD	452-455	4	S999V9
8Ø	Oil Consumption (Qts.)-LTD	456-46Ø	5	S9999V9
81	Oil Cost - CM	461-465	5	S999V99
82	Oil Cost - YTD	466-472	7	S9(5)V99
83	Oil Cost - LTD	473-479	7	S9(5)V99
84	Misc. Cost - CM	48Ø-484	5	S999V99
85	Misc. Cost - YTD	485-491	7	S9(5)V99
86	Misc. Cost - LTD	492-498	7	S9(5)V99
87	Number Repair Orders - CM	499-5ØØ	2	S99V
88	Number Repair Orders - LTD	5Ø1-5Ø3	3	S999V
89	Number Road Calls - CM	5Ø4-5Ø5	2	S99V

DATE: June 27, 1975

PTI/APWA EQUIPMENT MANAGEMENT SYSTEM

FILE NAME: Equipment Inventory Master Record Length 7ØØ

FILE NUMBER: EMIFØ4 BLOCKING FACTOR: 4

FIELD NO	DATA ELEMENT NAME	POSITION	LENGTH	PICTURE OR REMARKS
9Ø	Number Road Calls - LTD	5Ø6-5Ø8	3	S999V
91	Scheduled Labor Hours - CM	5Ø9-513	5	S9(4)V9
92	Scheduled Labor Hours - LTD	514-519	6	S9(5)V9
93	Total Labor Hours - CM	52Ø-524	5	S9(4)V9
94	Total Labor Hours - LTD	525-53Ø	6	S9(5)V9
95	Labor Cost - CM	531-537	7	S9(5)V99
96	Labor Cost - LTD	538-545	8	S9(6)V99
97	Parts Cost - CM	546-552	7	S9(5)V99
98	Parts Cost - LTD	553-56Ø	8	S9(6)V99
99	Commercial Cost - CM	561-567	7	S9(5)V99
1ØØ	Commercial Cost - LTD	568-575	8	S9(6)V99
1Ø1	Accident Cost - CM	576-583	8	S9(6)V99
1Ø2	Accident Cost - LTD	584-591	8	S9(6)V99
1Ø3	Warranty Cost - CM	592-599	8	S9(6)V99
1Ø4	Warranty Cost - LTD	6ØØ-6Ø7	8	S9(6)V99
1Ø5	Billed Amount - CM	6Ø8-614	7	S9(5)V99

DATE: June 27, 1975

PTI/APWA EQUIPMENT MANAGEMENT SYSTEM

FILE NAME: Equipment Inventory Master Record Length: 7ØØ

FILE NUMBER: EMIFØ4 BLOCKING FACTOR: 4

FIELD NO	DATA ELEMENT NAME	POSITION	LENGTH	PICTURE OR REMARKS
1Ø6	Billed Amount - YTD	615-621	7	S9(5)V99
1Ø7	Billed Amount - LTD	622-629	8	S9(6)V99
1Ø8	Miles or Hours per Gallon	63Ø-635	6	S999V999
1Ø9	Date Last PM	636-641	6	MMDDYY
11Ø	Meter Last PM	642-648	7	S9(6)V9
111	Type of Last PM	649	1	"A, B, or C"
112	Date Last State Inspection	65Ø-655	6	MMDDYY
113	Total Repair Cost - YTD	656-663	8	S9(6)V99
114	Filler	664-7ØØ	37	X(37)

FILE DESCRIPTION FORM

SYSTEM NAME: PTI/APWA EQUIPMENT MANAGEMENT INFORMATION SYSTEM

COMPONENT NAME: Equipment Inventory

FILE NAME: Changes File EMIFØ5, EMIFØ6

VOLUME DEVICE: Disk

FILE ORGANIZATION: Sequential

FILE NUMBER OF VOLUME (FIRST, SECOND, ETC.): 1st

RECORD FORMAT: Fixed Length

RECORD LENGTH: 14Ø2

RECORDS PER BLOCK: 2

FILE RETENTION:

a. TEMPORARY [X]

b. PERMANENT [ ] RETENTION PERIOD: NA

RECORD RELATIVE KEY POSITION: N/A

KEY LENGTH: N/A

PHYSICAL BLOCKSIZE: 28Ø4

MAXIMUM NUMBER OF LOGICAL RECORDS ON FILE: 1 record for each piece of equipment changed

CREATING PROGRAM: EMIPØ2

REFERENCING PROGRAM(S):

PROGRAM	ACCESS METHOD
EMIUØ2	Sequential
EMIPØ3	Sequential

RECORD LAYOUT

FILE NAME: Changes File RECORD LENGTH: 14Ø2

FILE NUMBER: EMIFØ5/EMIFØ6 BLOCKING FACTOR: 2

Field Number	Field Name	Position	Length	Picture or Remarks
1	Change Type	1-2	2	X(2)
2	Old Master Record Image	3-7Ø2	7ØØ	X(7ØØ)
3	New Master Record Image	7Ø3-14Ø2	7ØØ	X(7ØØ)
		A-17		

FILE DESCRIPTION FORM

SYSTEM NAME:

COMPONENT NAME: Equipment Inventory

FILE NAME: Select Cards EMIFØ7

VOLUME DEVICE: Cards

FILE ORGANIZATION: Sequential

FILE NUMBER OF VOLUME (FIRST SECOND, ETC): N/A

RECORD FORMAT: Fixed Length

RECORD LENGTH: 8Ø

RECORDS PER BLOCK: 1

FILE RETENTION:

a. TEMPORARY [X]

b. PERMANENT [ ] RETENTION PERIOD: _____

RECORD RELATIVE KEY POSITION: N/A

KEY LENGTH: N/A

PHYSICAL BLOCKSIZE: 8Ø

MAXIMUM NUMBER OF LOGICAL RECORDS ON FILE: 1 per select card.

CREATING PROGRAM: N/A

REFERENCING PROGRAM(S):

PROGRAM	ACCESS METHOD
EMIPØ4	Sequential

RECORD LAYOUT

FILE NAME: Select Cards RECORD LENGTH: 8Ø

FILE NUMBER: EMIFØ7 BLOCKING FACTOR: 1

Field Number	Field Name	Position	Length	Picture or Remarks
1	Request Code	1	1	X(1) "S" or "D"
2	Equipment No.	2-7	6	X(6) or "ALL" starting in Column 2
3	APWA Code	8-15	8	X(8)
4	Organization Code	16-21	6	X(6)
5	Filler	22-8Ø	59	X(59)
		A-19		

FILE DESCRIPTION FORM

SYSTEM NAME: PTI/APWA EQUIPMENT MANAGEMENT INFORMATION SYSTEM

COMPONENT NAME: Equipment Inventory

FILE NAME: Extract file EMIFØ8, EMIFØ9

VOLUME DEVICE: Disk

FILE ORGANIZATION: Sequential

FILE NUMBER OF VOLUME (FIRST, SECOND, ETC.): 1st

RECORD FORMAT: Fixed length

RECORD LENGTH: 721

RECORDS PER BLOCK: 4

FILE RETENTION:

a. TEMPORARY [X]

b. PERMANENT [ ] RETENTION PERIOD: _____

RECORD RELATIVE KEY POSITION: N/A

KEY LENGTH: N/A

PHYSICAL BLOCKSIZE: 2884

MAXIMUM NUMBER OF LOGICAL RECORDS ON FILE: 1 per extracted vehicle

CREATINC PROGRAM: EMIPØ4

REFERENCING PROGRAM(S):

PROGRAM	ACCESS METHOD
EMIUØ3	Sequential
EMIPØ5	Sequential

RECORD LAYOUT

FILE NAME: Extract RECORD LENGTH: 721

FILE NUMBER: EMIFØ8/EMIFØ9 BLOCKING FACTOR: 4

Field Number	Field Name	Position	Length	Picture or Remarks
1	Select Card Image (EMIFØ7)	1-21	21	X(21)
2	Master Record Image (EMIFØ4)	22-721	7ØØ	X(7ØØ)

FILE DESCRIPTION FORM

SYSTEM NAME: PTI/APWA EQUIPMENT MANAGEMENT INFORMATION SYSTEM

COMPONENT NAME: Equipment Inventory

FILE NAME: ORG/APWA Table EMGFØ3

VOLUME DEVICE: Tape

FILE ORGANIZATION: Sequential

FILE NUMBER OF VOLUME (FIRST, SECOND, ETC.): 1st

RECORD FORMAT: Fixed length

RECORD LENGTH: 8Ø

RECORDS PER BLOCK: 2Ø

FILE RETENTION:

a. TEMPORARY ☐

b. PERMANENT ☒

RETENTION PERIOD: Continuous

RECORD RELATIVE KEY POSITION: N/A

KEY LENGTH: N/A

PHYSICAL BLOCKSIZE: 16ØØ

MAXIMUM NUMBER OF LOGICAL RECORDS ON FILE: 1 per APWA class
1 per organization name

CREATING PROGRAM: N/A

REFERENCING PROGRAM(S):

PROGRAM	ACCESS METHOD
EMIPØ3	Sequential
EMIPØ5	Sequential
EMIPØ6	Sequential

APPENDIX B

SAMPLE FORMS

PUNCH ON ALL CARDS	
TRANSACTION TYPE	EQUIPMENT NUMBER
ADD TO FLEET = 2 MODIFY RECORD = 5 COL. 1	COL. 2-7 →

B-1

(EMID01)

EQUIPMENT INVENTORY FORM

("Birth Certificate")

DATE C-/__/__

APWA CODE (8-15)

DATE RECEIVED MO DAY YR (16-21)

DEPRECIATION DATA

ESTIMATED LIFE (1 = MONTHS, 2 = MILES 1000's, 3 = HOURS 100's) 22-24 | 25

SALVAGE VALUE $ 26-30

P.O. AMOUNT $ 31-38

ASSIGNED ORGANIZATION CODE 39-44

PM DATA

PM INTERVAL: MONTHS 45-46; MILES OR HOURS 47-51

PM SEQUENCE (TYPES A, B, C) 52-59

ASSIGNED PM LOC. 60-63

METER UNIT (H, M, OR X) 64

ACCIDENT REPAIRS – BILL USER Y OR N 65

BILLING BASIS: RENTAL = R, DIRECT CHARGE = D 66

INSURANCE SCHEDULE(S) 67-69

NORMAL DUTY HOURS PER MONTH 70-72

BILLING DATA

FLAT RATE $ 8-13

PER (M = MONTHS, D = DAY, C = CLOCK HR.) 14

BASIC USE RATE $ 15-20

USE RATE B $ 21-26; OVER 27-31; UNITS

USE RATE C $ 32-37; OVER 38-42; UNITS

DATA ON UNIT REPLACED BY THIS UNIT

OLD EQUIP. NO. 43-48

DATE RELEASED MO DAY YR 49-54

OLD P.C. NUMBER 55-62

GVWR (POUNDS) 63-68

IMPROVEMENTS ADDED $ 69-75

FUEL TANK CAPACITY 76-78

FUEL TYPE 79

DESCRIPTION 8-27

FUND NUMBER 28-39

STATE INSPECTION EVERY MO. 40-41

ASSIGNED SERV. LOCATION 42-45

HIGHWAY CODE (1 = CITY, 2 = HIGHWAY, 3 = OFF-ROAD) 46

CHASSIS DATA

CHASSIS MFR. CODE 47-50

MODEL NUMBER 51-57

SERIAL NUMBER 58-77

MODEL YEAR 78-79

TITLE NUMBER 8-16

PROPERTY CONTROL NUMBER 17-24

PURCHASE ORDER NUMBER 25-32

LICENSE TAG NUMBER 33-41

BODY DATA (IF DIFFERENT FROM CHASSIS DATA)

DOMICILE CODE 42-45

BODY MFR. CODE 46-49

MODEL NUMBER 50-57

SERIAL NUMBER 58-77

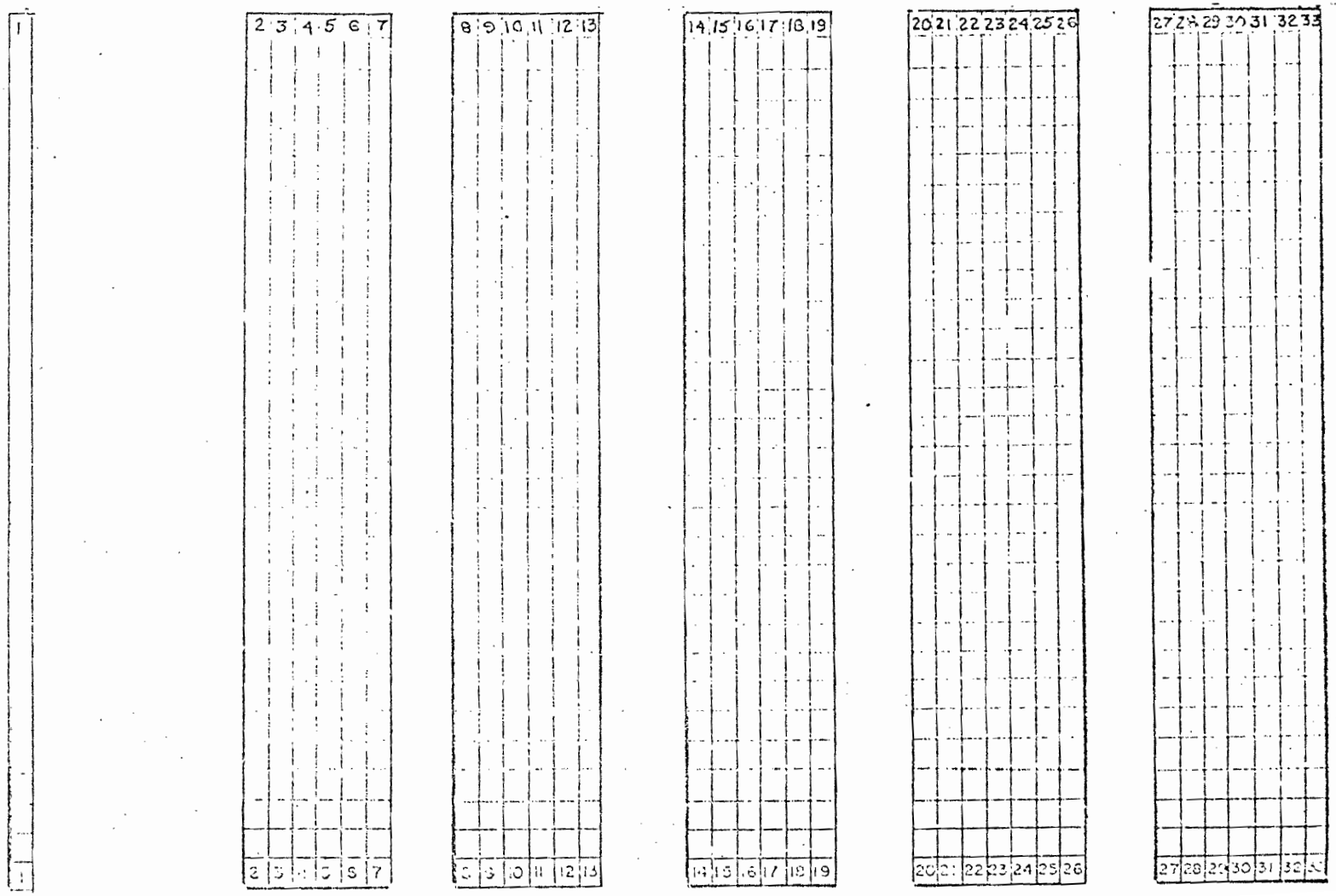
MODEL YEAR 78-79

EQUIPMENT MANAGEMENT INFORMATION SYSTEM
MILEAGE/STATUS CHANGE FORM

(EMIDØ2)

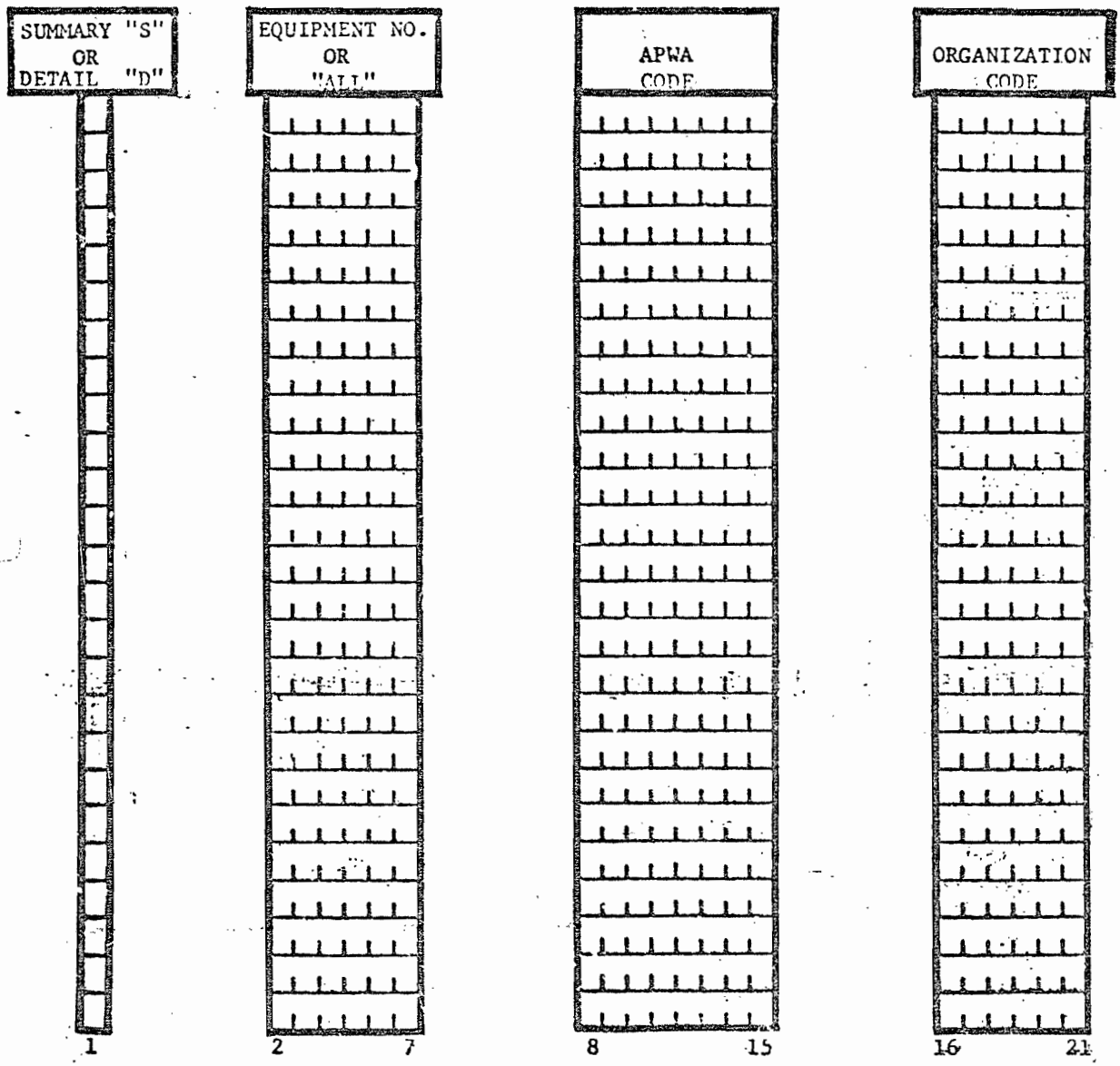
DATE_____

TRANSACTION TYPES
1= remove from fleet
3= de-activate
4= re-activate
6= mileage change



PTI/APWA EQUIPMENT MANAGEMENT INFORMATION SYSTEM

*** EQUIPMENT INVENTORY REPORT REQUEST FORM - EMID03 ***



FLEET SUPERINTENDANT SIGNATURE

DATE

END

DATE

FILMED

12-29-77

NTIS