***TC 43-4**

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MAINTENANCE MANAGEMENT

Commander’s and Shop Officer's Guide for Support Maintenance Management

APPLICABILITY. This circular applies to all Active Army, U.S. Army Reserve (USAR), and the National Guard (ARNG) maintenance unit commanders, shop officers, and staff officers at support battalions and materiel management centers.

SUGGESTED IMPROVEMENTS. The proponency of this circular is the U.S. Army Combined Arms Support Command. Users are invited to send comments and suggestions on DA Form 2028 directly to Commander, U.S. Army Combined Arms Support Command (ATTN: ATCL-AO) Fort Lee, Va. 23801-6000.

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***This publication supersedes TC 43-4, 1 June 1992.**

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CHAPTER 1

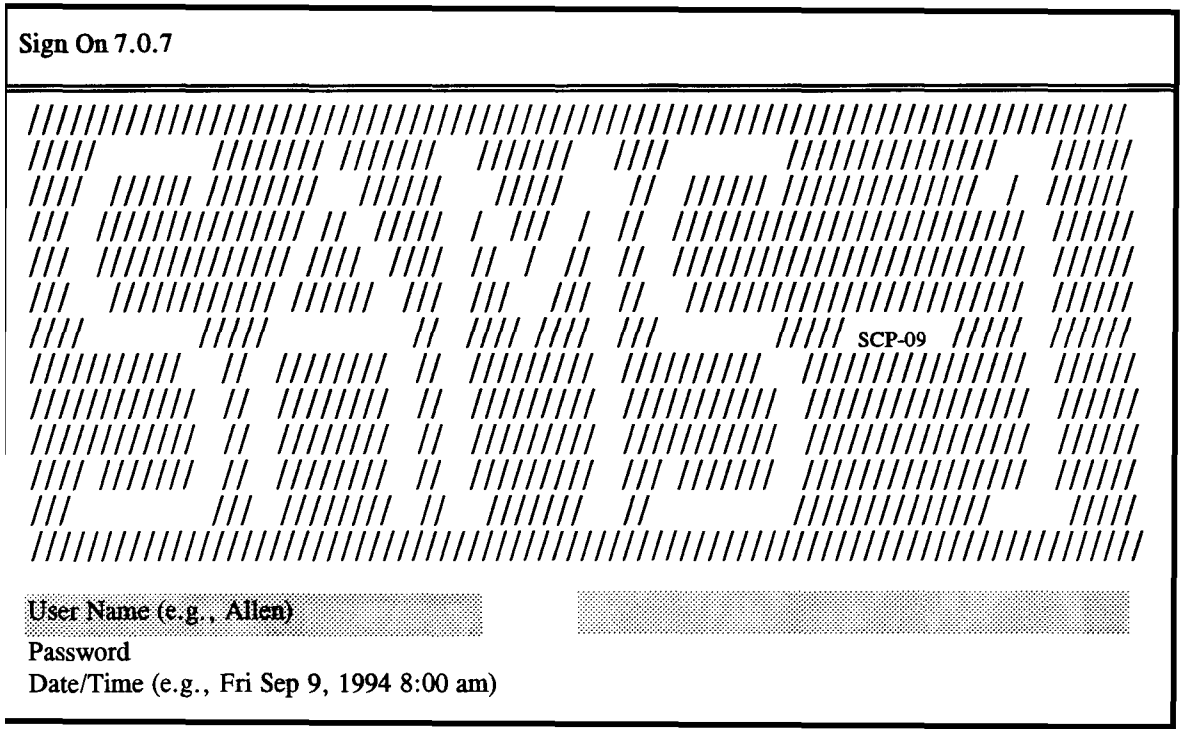
INTRODUCTION

This guide is designed for use by commanders and maintenance managers at the shop office, battalion staff, and the Division Materiel Management Center (DMMC). The shop office use of SAMS-1 is in chapter 2. The staff and DMMC are combined in chapter 3 because they both use SAMS-2. Chapter 4 is intended to help commanders get information they need to determine if their performance is meeting the standard. Chapter 5 has other important subjects commanders and staff officers must address in achieving effective and efficient maintenance operations. Chapter 6 addresses how to design ad hoc reports. The measure of success of a maintenance operation is commonly measured by its ability to maintain the desired operational readiness standards for all or specified items of equipment within the command. The measure of success of a maintenance manager is based on his ability to lead his soldiers and manage his resources in the performance of all the tasks within the maintenance system. The Standard Army Maintenance System (SAMS) provides the maintenance manager a significantly improved automated management information system to assist him in managing direct and general support maintenance operations. As with most automated systems, SAMS has the capacity to process large quantities of data and produce hundreds of pages of reports, confronting the manager with information or paper overload. This guide provides the maintenance manager a guide on how to use SAMS as a tool supporting the management of effective and efficient maintenance operations. As a maintenance manager, YOU must learn how to make SAMS work for you as you go about managing your maintenance operation.

Before we go any futher, you may want to dig into the details of the system by reading the SAMS-1 or SAMS-2 user manuals, AISM 18-L2 l-AHN-BUR-EM or AISM 18-L26-AHO-BUR-EM. These manuals give you the nitty gritty on how to make the system do what it is designed to do. YOU will not find that kind of detailed instruction in this guide. This guide gives you only what you need to get the system to give YOU data or information related to specific questions you ask or decisions you make as a manager. This is why the instructions in this guide are short and to the point. Of course, if the computer does not respond as shown in these instructions, consult the manuals or your trained operator.

Now let's get you into the SAMS system. The first thing you do is ensure your system adminstrator has your name and password in the system. Once you have done this, you should not have to do it again. Who is your system administrator? Normally, he is the senior noncommissioned officer of the section having the computer SAMS software.

Preliminaryes are completed. Step up to your Tactical Army Combat Service Support Computer System (TACCS) and flip the main Power switch and the Printer Power switch to the ON position. Turn on the printer by flipping the switch in back of the printer to ON. Depending on where you are (Shop officer battalion or DMMC) you will see a SAMS - 1 or a SAMS-2 logo on the computer screen. The lighted green area is called the highlighter and the flashing black line is the cursor.

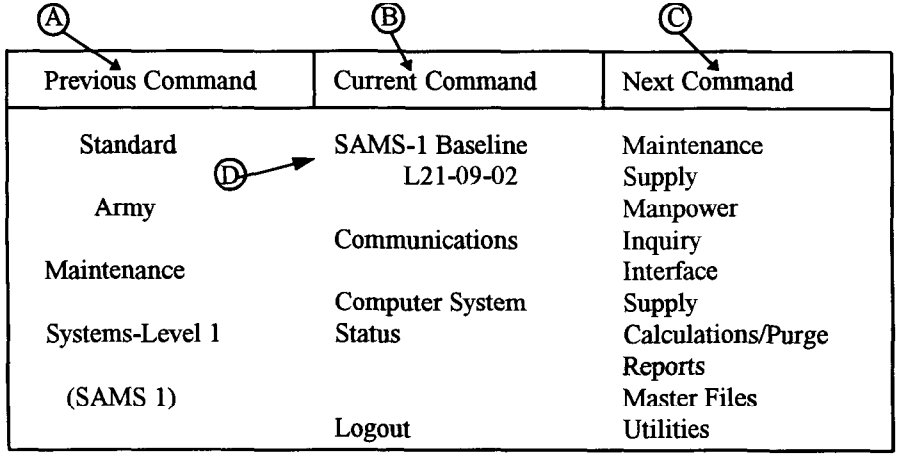


Type in your name or SAMS 1 as directed by the system administrator. PRESS RETURN.

Type in your password. Press RETURN. (If used.)

Enter today's date, Note: Follow the example to the left of the highlighter: DAY, MONTH, DATE, YEAR and the TIME. Press GO. If the computer accepts you, go into the system, you will seethe basic menu screen with the highlighter over SAMS-1 BASELINE.

YOU ARE NOW READY TOGO TO WORK AND MAKE THIS SYSTEM WORK FOR YOU!!!



A. PREVIOUS COMMAND: An area of the screen into which the list of selections moves after a selection has been made. The selection made is shown in brighter type when moved to this area.
B. CURRENT COMMAND: An area of the screen which contains the list from which selections are made. The highlight remains in this area.
C. NEXT COMMAND: An area of the screen which lists choices that make up the highlighted selection in CURRENT COMMAND section.
D. HIGHLIGHT: A steady light which acts as a selection indicator by covering a field under CURRENT COMMAND.

If you area shop officer for a maintenance company, go to chapter 2. If you area staff officer, go to chapter 3. If you area commander, you may want to read the whole book, but start at chapter 4.

SPECIAL NOTES

- **When entering data, be careful when using (0) versus the O and the number 1 versus the letter 1.**
- **Press finish, finish to return to SAMS 1/2 Baseline.**
- **Objective supply capability has been added.**
- **SAMS 1 MASTER MENU has been changed**
    1. **Parent WO/task screen changed to work order tasks,**
    2. **Intra-shop WO/taAsk and close-out WO have been deleted.**
    3. **SSL/BSL Candidate Listing Report added.**
    4. **Condensed print added. Allows reports to be run on 8.5x 11 inch paper.**
- **Maintenance menu changed as follows:**
    1. **Work order/Tasks menus selection is now used to register all work orders including intra-shop. This screen is also used to update status, access the task process, and close the work order.**
    2. **An automated maintenance request, DA Form 5504-E, can be printed for all intra-shop and evacuation work orders.**
    3. **The parts maintenance process now provides access to the RPM file if the required part is not on the RPM file.**

CHAPTER 2

SHOP OFFICE

As the maintenance control officer, you supervise the maintenance control office that provides the control, coordination, and overall supervision of the maintenance shops. As the focal point for mission operations, your company commander and supported units depend on you to manage the workload, answer their questions, and plan for the effective and efficient use of your resources.

The decisions you make are based on the best information available to you. To get this information, you ask questions of your subordinates and the information system supporting your operation. The instructions in this chapter tell you how to get the information from SAMS-1. Figure 2-1 addresses the number of work orders your supported units have given you, tells you how to get the information, and asks some questions to help you analyze the information. Your analysis of the backlog and the status of the work in each shop can lead you to a number of potential problem areas. The remainder of the reports in this chapter will assist you in finding errors; bottlenecks; equipment shortages; parts delays; system, parts, and component problems; and a variety of other indicators that will lead you to a decision point. Practice using the reports on a daily basis. After you have learned them, determine for yourself how to use them for your operation. Don’t forget to pass on your new knowledge to your subordinates.

FIGURE 2-1. **Workload Distribution Production - Backlog**

1. Questions:
a. What is the total backlog?
b. What is the workable backlog?
c. What is the backlog by work section?
d. What is the age of the backlog?
e. How much of the backlog was evacuated?
f. How much of the backlog was deferred?
g. What is the status of the backlog over 30 days old?

2. How to get the information: Start with the highlighter over SAMS-1 BASELINE. Press ⇨. Press ⇩ until the highlighter is over REPORTS. Press ⇨ two times. Press ⇩ until the highlighter is over PROD/BACKLOG STATUS. Press GO. Enter today's ordinal date in the HIGHLIGHTER. (NOTE: Ordinal date is decade plus the Julian date: for example, 3 Dec 1987 is 87337). Press GO. The computer will process your request and print this report.

PREPARED 24 APR 95 — SAMS-1 PRODUCTION/BACKLOG STATUS — PCN AHN 022
START DATE 95001
UIC SUPPORT UNIT NAME SUPPORT
WFMFAA 699TH MAINT CO

SHOP * CD	BEG BAL	WO REC	WO COMP	WO EVAC	DEF OH	WO INSP	AWAIT SHOP	IN SHOP	AWAIT PART	OTHER	FINAL INSP	AWAIT PICKUP	BACKLOG AGE 0-30	31-36	61-90	OVER 90	91+
A	42	1	0	1	0	42	2	10	13	5	11	0	1	0	0	0	42
B	7	0	0	0	0	7	0	2	2	1	2	0	0	0	0	0	7
D	17	0	0	0	0	17	0	11	1	5	0	0	0	0	0	0	17
E	7	0	0	0	0	7	0	4	1	1	0	0	0	0	0	0	7
F	7	0	0	1	0	6	0	1	0	4	1	0	0	0	0	0	5
G	22	0	0	6	0	16	0	5	0	11	0	0	0	0	0	0	16
K	4	0	0	1	0	3	0	2	0	0	0	0	0	0	0	0	3
L	3	0	0	2	0	1	0	0	0	1	0	0	0	0	0	0	1
OVERALL TOTALS																	
	109	1	0	11	0	99	2	35	17	28	14	0	1	0	0	0	98

****WO EVAC****			
NMCM	NMCS	FMC	DEPOT
0	0	11	0

FIGURE 2-1 (Cont).

3 . This report gives you the overall distribution of your workload today. You can quickly locate problem areas by analyzing the information and asking questions.

a. Is one shop or commodity load particularly high? You may need to look further using the report in figure 2-2 and figure 2-17.

b. What is your percent of evacuated work orders? Is it too high? Are you passing the work instead of fixing it?

c. Periodically check your deferred work orders so they do not become "out of mind." Reconcile with your supported unit. Use figure 2-4 to list deferred work orders.

d. So you have too many work orders awaiting inspection! Use the report in figure 2-4 to check how long they have been awaiting inspection.

e. You can use the report in figure 2-4 to check those work orders that have been in the same status too long.

f. Work orders 30 to 60 days old can be checked by using the report in figure 2-8.

4. This report can also give you the number of work orders received and completed since the last time you executed the weekly work order transfer. You use the ordinal date of the day you executed the transfer. Use the report to address the following questions:

a. How many work orders have the shops received and completed in the last week?

b. Have receipts of work orders been excessive in the past week? If yes, why?

5. You can train yourself to look at this report in terms of cause and effect using the numbers in the different columns as pointers guiding you to the next step in your analysis. Apply this approach to all the reports you review.

FIGURE 2-2. **Specific Equipment Category Workload - Backlog**

1. Questions:

a. What is the backlog in hours by specific equipment category code (ECC)?

b. To what supported unit do the work orders belong?

c. What systems are in the backlog by work order number?

d. What priority is on a specific work order?

e. What shop has a specific work order?

f. What is the status of a specific work order?

g. What is the age of a specific work order?

h. What is the work order number for each ECC item in the backlog?

2. How to get the information: Start at SAMS-1 BASELINE. Press ⇨.
Press ⇩ until highlighter is over INQUIRY. Press ⇨ and GO. The Ad Hoc Inquiry screen will be displayed. At Inquiry block type PRESS-2 and press RETURN. Enter WORF for File Name and press RETURN. You will have to wait approximately 5 minutes for the computer to verify the file structure. When the file structure verification has been completed, Form Name will be highlighted. Press RETURN. At TITLE type in WORK ORDERS and press RETURN. Type in the remaining data elements as noted on the Inquiry Specification Report, and press RETURN GO after last entry. Press F10 twice to print entire report or hold code key down and press copy key to print what is on the screen.

When finished press FINISH twice to return to the main menu screen, SAMS-1 baseline.

Figure 2-2 (Cont).

Date: o7/05/90 Inquiry Specification Report Page 1
Time: 12:28:31 [File Name]: WORF
Inquiry: PRE2-2 [Form Name]:
[Title]: WORK ORDERS

Data Elements to Sort	A/D	Brk?	Cnt?
ECC	A	Y	Y
UNICUST	A	N	N
EQNOUN	A	N	N

Data Elements to Select	M/R	From Range	To Range	A/O
ECC	R	JO	JZ	A
PD	M	03		A

Data Elements to Report	Length	Column Heading	Tot?
ECC	3	ECC	N
UNICUST	6	UNICUS	N
EQNOUN	21	EqNoun	N
UALFUNC	16	Ualtuno	N
PD	4	PDUn	N
SHOP	4	Shop	N
STSPT	5	StSpt	N
DTACP	5	DtAcp	N
WON	12	WON	N
MHPRJ	5	MHPrj	Y
UHEXP	5	UHEXP	Y
MHRMN	5	MHRmn	Y

check ECC table for range

ECC TABLE

Code	Description
	Primary
A	Aircraft
B	Air defense systems
C	Missile system, surface-to- surface
D	Artillery weapons
E	Small arms
F	Tanks
G	Combat vehicles
H	Commo and elect equip
J	Tactical vehicles
K	Electronic test equipment
L	Floating equipment
M	Railway equipment
N	Construction equipment
O	Med and dental equipment
P	Materiel handling equipment
Q	Support equipment
R	Ammo/ammunition equipment
S	Installation/depot peculiar service equipment
T	Machine tools
U	Shop support equipment
V	No-tactical wheel vehicles [Commercial Design]
W	Furniture and appliances
X	Office equipment
Y	Tools not listed elsewhere
Z	Equipment not listed elsewhere

FIGURE 2-2 (Cont next page)

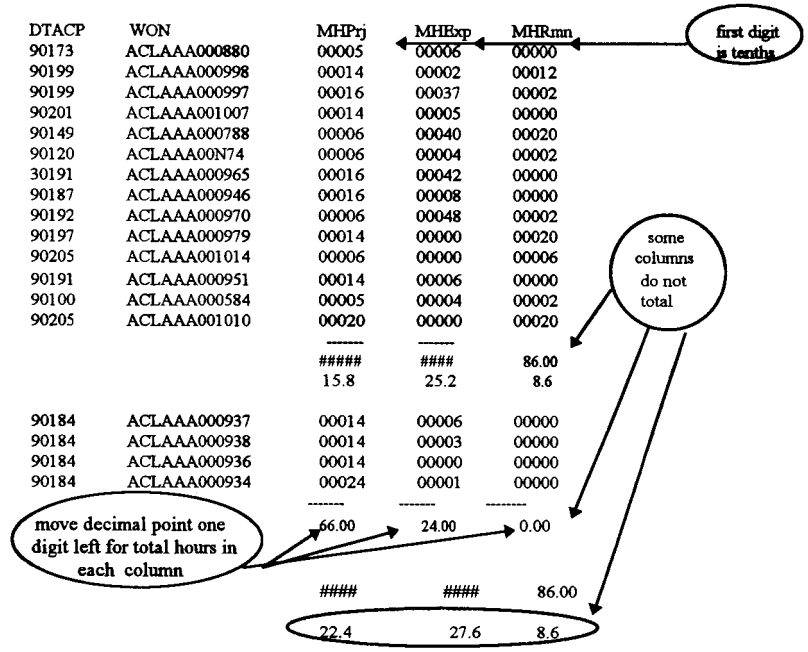
FIGURE 2-2 (Cont).

DATE: 01/ 09/92
TIME: 09:58:53

WORK ORDERS

PAGE 1

ECC	UICCUS	EQNOUN	MA LFUNC	PD	SHOP	STSPT	DTACP	WON	MHPrj	MHExp	MHRmn
JR	WACLA0	AN/GRC-193A	PA FAULT	03	R	R	90173	ACLAAA000880	00005	00006	00000
	WACLA0	ANUURC-101	WfN RCV SECURE	03	R	O	90199	ACLAAA000998	00014	00002	00012
	WACLA0	ANGRC106A	W/N TUNE OVER 24	03	R	M	90199	ACLAAA000997	00016	00037	00002
	WACLT0	ANTENNA DSM120	ELEMENTS BROKEN	03	R	U	90201	ACLAAA001007	00014	00005	00000
	WACLT0	ANTRC113V1	CLSP 90-4-118	03	L	M	90149	ACLAAA000788	00006	00040	00020
	WACLT0	FCY-2432	NO REC	03	R	H	90120	ACLAAA00N74	00006	00004	00002
	WACLTO	RT42VVRC	WIN TRANS	03	R	U	30191	ACLAAA000965	00016	00042	00000
	WACLAA	RT-S24NRC	OFF FREQ	03	R	R	90187	ACLAAA000946	00016	00008	00000
	WACLC0	AN/TSC-93A	SWITCH INOP	03	L	M	90192	ACLAAA000970	00006	00048	00002
	WACLB0	AN/TSC-93A	MWO PREP	03	L	M	90197	ACLAAA000979	00014	00000	00020
	WACLB0	AN/TSC-93A	SYS CAL	03	L	M	90205	ACLAAA001014	00006	00000	00006
	WACLB0	ANGRC106A	CUTTS OFF	03	R	U	90191	ACLAAA000951	00014	00006	00000
	WACLB0	RT-1402	W/NOT TRANS	03	R	M	90100	ACLAAA000584	00005	00004	00002
	WACLB0	RT-52/VRC	NO TRANSMIT	03	R	C	90205	ACLAAA001010	00020	00000	00020
Count of JR (ECC)=14									-----	-----	
									#####	####	86.00
									15.8	25.2	8.6
JX	WACLAA	CX-4566A W/R	BAD PAIRS	03	W	R	90184	ACLAAA000937	00014	00006	00000
	WACLBO	CX-4566A W/R	BAD PAIRS	03	W	R	90184	ACLAAA000938	00014	00003	00000
	W ACLBO	CX-4566A W/R	BAD PAIRS	03	W	R	90184	ACLAAA000936	00014	00000	00000
	WACLBO	CX-4566A W/R	BAD PAIRS	03	W	R	90184	ACLAAA000934	00024	00001	00000
Count of JX (ECC)-4									-------	-------	-------
									66.00	24.00	0.00
									#####	####	86.00
									22.4	27.6	8.6



3. This report will focus on the particular ECC you selected and will list work orders by system model number. This is perfect for focusing on a particular pacing item. This example shows M60A3 and MlAl tanks.

a. Do you have too many tanks awaiting shop?

b. Do you need to float, evacuate, or ask for augmentation to get these tanks fixed?

c. Is a particular item being delayed because it has the wrong priority? Passage of time may require a higher priority.

FIGURE 2-2 (Cont).

d. What are your total man-hour requirements? Per shop? Total? How many man-hours are available? If you do not have sufficient man-hours available, consider evacuating to GS.

e. Does one shop have a higher man-hour requirement than the others? Consider moving mechanics from shops with low requirements to shops with high requirements. If mechanics that are temporarily moved do not have the capability to repair the new commodity, then assign the mechanic to another mechanic having full capability. This will allow for cross training.

f. Are more hours expended than projected? If so, either the inspectors are not estimating properly or mechanics may require training or motivation.

FIGURE 2-3. **Maintenance Shop Capacity Versus Workload/Backlog**

1. Questions:

a. What is the workable backlog for which there is no capacity to repair?

b. How much of the backlog will I keep for my shops?

c. Which work orders are candidates for float?

d. Which work orders do I evacuate?

e. How many man-hours or man-days must I request as augmentation?

f. How many work orders can I redistribute within the shops?

2. How to get the information: Start with SAMS-1 BASELINE. Press ⇨. Press ⇩ until inquiry is highlighted. Press ⇨ and GO The data base inquiry screen will appear. Type SHOPCAP in inquiry block and press RETURN. Type in WORF, press RETURN, and wait while system verifies file structure. This may take several minutes. After file structure is verified, press RETURN. Enter title and remaining data elements as noted in example. After last entry in Data Elements to Report press RETURN and GO. To print the screen hold down the code key and press the copy key. To print the report press F10 twice. To return to main menu press FINISH twice.

Date: 07/ 05/90 Inquiry Specialization Report Page: 1
Time: 12:52:46
Inquiry: SHOPCAP

File Name (Form Name): WORF
[Title] SHOP CAPACITY FOR WORKABLE BACKLOG

Data Elements to Sort	A/D	Brk?	Cnt7
SHOPSECCD	A	N	N
STSPT	A	N	N
WON	A	N	N

Data Elements to Select	M/R	From Range	To Range	A/O
STSPT	R	B	C	A

Data Elements to report	Length	Column Heading	Tol?
SHOPSECCD	4	SHOP	N
STSPT	5	StSpt	N
WON	12	WON	N
FO	4	PDUn	N
EONOUN	21	EqNoun	N
MHRMN	5	MHRmn	N
UICCUST	6	UICCUS	N

do not request a total by entering a "Y" unless the field to total is numerical.

FIGURE 2-3 (Cont).

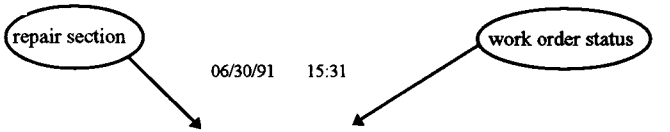
3. Your analysis of the above report could center on areas A,B,C,and D.

A. Why are three M60 machine guns awaiting shop when there are no work orders in the shop?

B. The two work orders in the M shop have 3 man-hours of work remaining and 7 man-hours of work awaiting shop. Do you have an overload? What if the comparison was 30 and 70 man-hours versus 3 and 7 man-hours?

C. The large workload for shop V is a good example of a need to look for help to relieve the backlog. If not, you may want to float, evacuate, or request augmentation.

D. The work orders in this group may require further analysis to ensure you arrange them according to customer needs. First in first out may not apply if customer needs have changed over time. This is where monitoring your customer's training schedule can help you prioritize your workload. Coordination with your battalion support operations section may also provide you with guidance.



06/30/91 15:31 PAGE 1

SHOPS	STSP	WON	PDUN	EQNOUN	MHRMN	UICCUS
B	C	9K9D0A703167	03	M-60 MACHINE	00020	WT9MD0
B	C	9K9D0A703168	03	M-60 MACHINE	00020	WT9MD0
B	C	9K9D0A703169	03	M-60 MACHINE	00020	WT9MD0
L	B	9K9D0A703777	03	M-163	00020	WT9MB0
M	B	9K9D0A703527	03	M 151A2	00010	WT9MA0
M	B	9K9D0A703531	03	M 151A2	00020	9K9MD0
M	C	9K9D0A703383	03	M 1009	00020	9K9MT0
M	C	9K9D0A703529	03	M 151A2	00010	9K9MA0
M	C	9K9D0A703532	03	M 151A2	00020	WT9MD0
M	C	9K9D0A703635	03	M 151A2	00020	WT9MC0
N	B	9K9D0A703726	03	M 901 ITV	00010	WN7AT0
N	C	9K9D0A703776	03	M 35A1	00150	WN7AA0
P	B	9K9D0A703867	03	M 105A2	00010	WT3SA0
Q	C	9K9D0A703254	03	ANGSG-10	00020	WT3ST0
Q	C	9K9D0A703479	03	TA-312	00020	WT3ST0
Q	C	9K9D0A703607	03	MX-7777	0020	WM4YT0
S	C	9K9D0A703065	13	M 813	00020	W9K9A0
S	C	9K9D0A703109	06	FABRICATION	00010	W9K9A0
V	B	9K9D0A703011	03	M 931 TRK	00020	W9K9A0
V	B	9K9D0A703053	03	M 63A2	00020	W9K9A0
V	B	9K9D0A703406	03	M 543 W/W	00010	W9K9F0
V	C	9K9D0A702983	03	M 35A2 W/W	00020	WNJ7C0
V	C	9K9D0A703071	03	M 35A2	00020	WA93B0
V	C	9K9D0A703080	03	M 931 TRK	00020	W9K9A0
V	C	9K9D0A703142	03	M 35A2	00020	WNK5AA
V	C	9K9D0A703264	03	M 54A2	00020	W9K9A0
V	C	9K9D0A703283	03	M 1009	0020	WA93B0

FIGURE 2-4. **Production -Work flow**

1. Questions:

a. Which work orders are not progressing as expected?

b. Which work orders, by shop, have been in the same status longer than xx days?

2. How to get the information: Start at SAMS-1 BASELINE and press =>. Press ⇩ until Inquiry is highlighted. Press ⇨ and GO. Wait for the ad hoc inquiry screen. Type WORK FLOW, and press RETURN. Type WORF for file name and wait for system to verify file structures. This usually takes from 2 to 5 minutes. Press RETURN and type PRODUCTION-WORK FLOW in "Title" block and press RETURN. Type in remaining data elements. Press RETURN after the last data element is entered in each action. Press RETURN and GO following the last entry under "Data Elements to Report." Press F10 twice to print report and FINISH to return to main menu.

Time:14:17:16
Inquiry: WORK FLOW File Name: WORF
[Form Name]:
[Title] PRODUCTION - WORK FLOW

Data Elements to Sort	A/D	Brk?	Cnt?	
STSPT	A	N	N	
SHOP	A	N	N	
DTSPT	A	N	N	

Data Elements to Select	M/R	From Range	To Range	A/O
DTSPT	R	89180	90180	A
STSPT	R	7	Z	A

Data Elements to Report	Length	Column Heading	Tot?
STSPT	5	StSpt	N
SHOP	4	Shop	N
DTSPT	5	DtSpt	N
TMSPT	5	TmSpt	N
PD	4	PDUn	N
WON	12	WON	N
UICCUST	6	UICCUS	N
EqNOUN	21	EqNoun	N

FIGURE 2-4 (Cont).

This report shows work orders that have been in their current status for more than 2 days. (Remember, you can change the number of days by changing data element 6 on the ad hoc query and reporting screen.) This report was shortened to save space. What you are looking for are work orders that are not moving as expected. D, K, and M status work orders normally exceed 2 or even 5 to 10 days. However, if other work orders exceed 2 days, you may want the shop foreman to explain why. There is a good chance there is a problem. Check for missing tools, parts, lift capability, a shortage of skills, a clerical problem in processing status, or any of many reasons. Your job is to find out why work orders are not moving, to resolve the problem, or inform your supporting staff or commander.

If there are any work orders with an S through Z status, look for administrative errors first.

Date: 07/05/90 PRODUCTION - WORK FLOW Page: 1
Time: 14:17:52

StSpt	Shop	DtSpt	TmSpt	PDUn	WON	UICCUS	EqNoun
H	R	90170	1000	03	ACLAAA000674	WACLAo	FCY-24S2
K	W	90143	1555	03	ACLAAA000775	WACLA0	SB-3614A
M	H	90166	1357	06	ACLAAA000785	WACLAA	PU-724A
M	L	90149	1530	03	ACLAAA000788	WACLA0	ANTRC113V1
M	L	90158	1100	06	ACLAAA000795	WACLAA	TD-660/G
M	R	90101	0900	03	ACLAAA000584	WACLB0	RT-1402
M	W	90149	1500	03	ACLAAA000789	WACLA0	ANTTC41 V4
M	W	90171	1000	06	ACLAAA000864	WACLB0	PS-76081
M	W	90179	0209	03	ACLAAA000898	WACLA0	SB-3614A

FIGURE 2-5. **Completed Work - Awaiting Pickup**

1. Questions:

a. Which supported units have equipment awaiting pickup?

b. How long has equipment been awaiting pickup?

c. Where should the shop officer focus his attention to ensure repaired equipment is picked up in a timely manner?

d. Are SAMS clerks notifying customers in a timely manner? Are clerks using ad hoc report - customer #2?

2. How to get the information: From SAMS-1 BASELINE and press ⇨. Press ⇩ until inquiry is highlighted. Press => and GO. The ad hoc inquiry screen will appear. Type CUST2 in inquiry block and press RETURN. Wait for system to verify file structures, as this will take a few minutes. Wait for message to instruct you to press desired function key. Press F10 twice to print report.

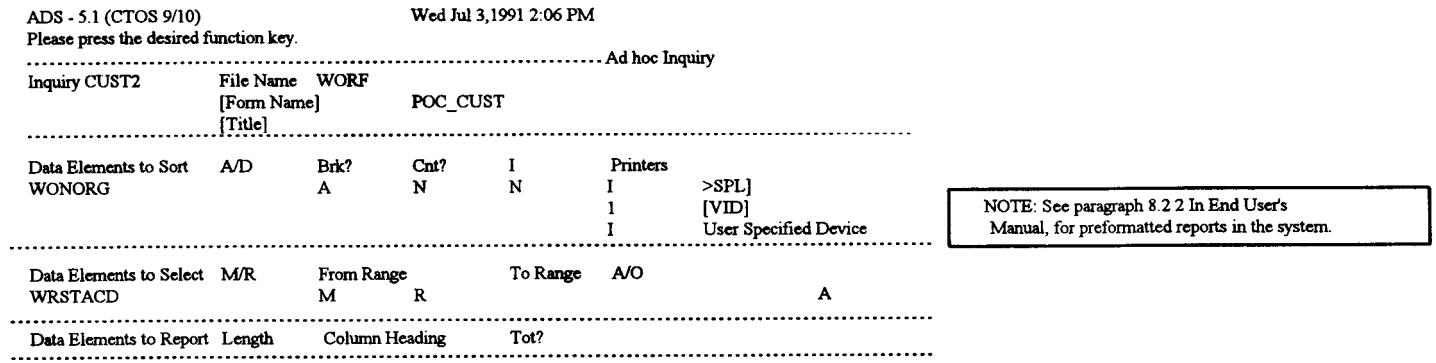


FIGURE 2-5. (Cont).

01/08/92 14:17:53 POINT OF CONTACT BY CUSTOMER AD HOC

ORGWON	WON		SHOP	EONOUN		STSPT	DTSPT	POC	DATE	TIME
ACLA01001155	ACLAAA000880	R	AN/GRC-193A	R	9205					
ACLAA0100019	ACLAAA000937	W	CX-4566A W/R	R	9200					
ACLAA0100121	ACLAAA000946	R	RT-524NRC	R	9204					
ACLB01000196	ACLAAA000934	W	CX-4566A WtR	R	9200					
ACLB01000209	ACLAAA000957	W	TA-838AITT	R	9200					
ACLB01000198	ACLAAA000936	W	CX-4566A W/R	R	9200					
ACLB01000201	ACLAAA000938	W	CX-4566A WtR	R	9200					
ACLB01000203	ACLAAA000960	W	J-1077A0U	R	9205					
ACLB01000202	ACLAAA000959	W	J-1077AIU	R	9205					
ACLC01000856	ACLAAA000974	L	18A2	R	9200					
ACLC01000854	ACLAAA000973	L	18A2	R	9200					
ACLC01000855	ACLAAAoooS72	L	18A2	R	9200					
ACLC01000842	ACLAAA001004	L	AS-2150	R	9204					
ACLC01000983	ACLAAA001003	C	ANAPSM45A	R	9205					

FIGURE 2-6. **Workable Jobs - Not Awaiting Shop**

1. Question: Are there any work orders in awaiting parts status that should be in awaiting shop status?
2. How to get the information: Start at SAMS-1 BASELINE. Press ⇨⇩ until HIGHLIGHTER is over REPORTS. Press ⇨⇨⇩until HIGHLIGHTER is over WORKABLE JOBS. Press GO, GO.

PREPARED 30 JUL 91 SAMS-1 WORKABLE JOBS PCN AHN001
UIC SUPPORT UNIT NAME SUPPORT
W9K9D0 D CO, 799TH S B

WON	DATE ACPT	PD	MODEL/NOUN	MALFUNCTION	WO STA	ID	NSN	NOUN	QTY ROD	QTY ISSUED
9K9DOA004757	90310	03	AN/PVS-5C	SNAP LINK BROKEN	K	A	5325-00-842-1879	SNAP FASTENER	00001	00001
9K9DOA004756	90310	03	AN/PVS-5C	SNAP LINK MISS	1	A	5325-00-842-1879	SNAP FASTENER	00001	00001
9K9DOA004799	90315	13	M203	CRACKED TUBES	1	A	1010-00-438-7414	BARREL ASSY	00010	00010

3. There are two reasons a work order will be on this report. Either all parts have been received and the work order is still in awaiting parts status or the work order is in awaiting parts status and no parts were ever ordered.

FIGURE 2-7. **Outstanding Work Request Parts Requirements**

1. Questions:
a. What are the required parts for outstanding work orders?

b. Have the correct parts been requested in a timely manner?

2. How to get the information: From SAMS-1 BASELINE. Press ⇨. Press ⇩ until the HIGHLIGHTER is over REPORTS. Press ⇨⇩. Press ⇨⇩ until the HIGHLIGHTER is over PARTS STATUS DETAIL. Press GO GO to print the report. This report lists all work orders awaiting parts and the parts ordered. The system will automatically return to the main menu.

PREPARED 30 JUL 91 SAMS-1 PARTS STATUS DETAIL LISTING PCN AHN011

PD 01-03 WORK ORDER OVER 030 DAYS OLD, PD 04-08 WORK ORDER OVER 060 DAYS OLD, PD 09-15 WORK ORDER OVER 120 DAYS OLD
WORK ORDER STATUS SELECTED FOR THIS REPORT = ALL

UIC SUPPORT	UNIT NAME SUPPORT	DODAAC
W9K9D0	D CO 799TH S. B	W33DVR

WON SHOP PD UIC / CUST	MODEL OR NOUN	NSN	RPR BUMPER APC		QTY NO		WO	DATE AGE	MALFUNCTION ACPT			WO	STA.
DOC NO	PART NSN	PART NOUN	RON	DI	ISS	CAN	SRCE	STIC	(NMCS) TOT COST		DIC	DATE	
A000080 G 03 W9K9A0	SECM1975	4940-01-016-2262	1		215 90034		WIRING PROBLEM		M				
00460016	4150-01-141-7776	WIRINGHARNESA	1	0	0	0	A	W	N	33 13	A0A	BF	91054
00460015	6150-01-142-1305	WIRINGHARNES	1	0	0	0	A	W	N	4828	A0A	BF	91054
00460013	2590-01-165-8387	WIRINGHARNES	1	0	0	0	A	W	N	19261	A0A	BE	91054
00600023	2590-01-165-8387	WIRINGHARNES	1	1	0	0	A	W	Y	19261	A0A		
00600019	6110-01-188-6681	PANELPWRDIST	1	1	0	0	A	W	Y	1050	A0A		-
00600022	2590-01-163-0821	WIRINGHARNES	1	1	0	0	A	W	Y	40 77	A0A		
00600028	6150-01-142-1305	WIRINGHARNES J	1	1	0	0	A	W	Y	4828	A0A		
A000086 R 03 W2FDA0	RT-524/RC	5820-00-892-0622	1		215 90034		N/PWR OUT A/BAND		R				
---NO MATCHING PART REQUIREMENTS FOR THIS WORK ORDER----													
A000079 S 13 W9K9A0	M813	2320-00-050-8902							49 90055	REPLACE GLASS			1
00600037	5340-00-696-0264	HINGE WNDSHLD	4	4	0	0	A	W	N	52 73	AF1		90090
A000065 M 03 W3PTT0	M543A2WW	2320-00-055-9258	1 HQ 51						43 91055	BOOM WONT ENGAGE			
10615001 2590-00-999-5434		COUPLING	1	0	1	0	A	W	Y	0 00	AF1	BC	1
V10910002, 2590-00-504-9066		PUMP	1	1	0	0	A	W	Y	600 00	A0A		

FIGURE 2-7 (Cont).

3. To check the timeliness of the parts request, compare the date accepted against the Julian date of the request. The commander sets the standard. Work order number A000065 was accepted on 91055. One of the requests is dated 1061. This looks acceptable, but compare the time to the standard. One of the requests is dated 1091, which translates to a 36-day delay in ordering the part.

FIGURE 2-7 (Cont)

1. UIC SUPPORT - Unit Identification Code of the supporting maintenance activity.
2. UNIT NAME SUPPORT - Name of the supporting maintenance activity in the clear.
3. DODAAC - The Department of Defense Activity Address Code of the support unit.
4. WON - The job order number for which the part is ordered.
5. SHOP - The shop section code.
6. PD - The priority designator (01-15) assigned to the maintenance request by the supported unit.
7. UIC CUST - The Unit Identification Code of the customer activity that owns the equipment.
8. MODEL OR NOUN - The item model or noun.
9. NSN - The National Stock Number of the part required to repair the item.
10. RPR QTY - Number of items being repaired against the WON.
11. BUMPER NO - The Bumper Identification Number of the item requiring maintenance.
12. APC - The Account Processing Code against which costs are being charged.
13. WO AGE - The number of days since the work order was registered at SAMS-1.
14. DATE ACPT - Ordinal date the maintenance request was accepted at the supporting maintenance activity.
15. MALFUNCTION - A brief statement of the equipment problem.
16. WO STA - The work order's current work request status code.

SAMS-1 Parts Status Detail Listing, PCN AHN-011 (example) - continued

FIGURE 2-7 (Cont).

17. DOC NO - The Document Number for each item on order for the work order. These document numbers are now printed in sequence.
18. PART NSN - The National Stock Number of the part.
19. PART NOUN - The name of the part on requisition.
20. RQN - The quantity requisitioned.
21. DI - The quantity due in.
22. ISS - The quantity issued.
23. CAN - The quantity canceled.
24. SRCE - The Part Source Code.
25. STIC - The Supply Transaction Identifier Code which is used to describe why the part was ordered.
26. NMCS - Non Mission Capable Supply Indicator for each part.
27. TOT COST - The cost of the part on order.
28. DIC - The Document Identifier Code.
29. SSC - The supply status codes as shown on the document register.
30. DATE - The date the Supply Status Code was received.
31. ESD - The estimated date that part will be shipped. Appears on the report if it is provided by the source of supply.
32. REMARKS - Space provided for notes. Any notes entered on the Parts Maintenance Screen, will be reprinted.

SAMS-1 Parts Status Detail Listing, PCN AHN-011 (example) - continued.

FIGURE 2-8. **Aged or Outstanding Work Orders**

1. Questions:

a. What work orders are 30 to 60 days old?

b. Which supported units have work orders 30 to 60 days old?

c. Which shops have these work orders?

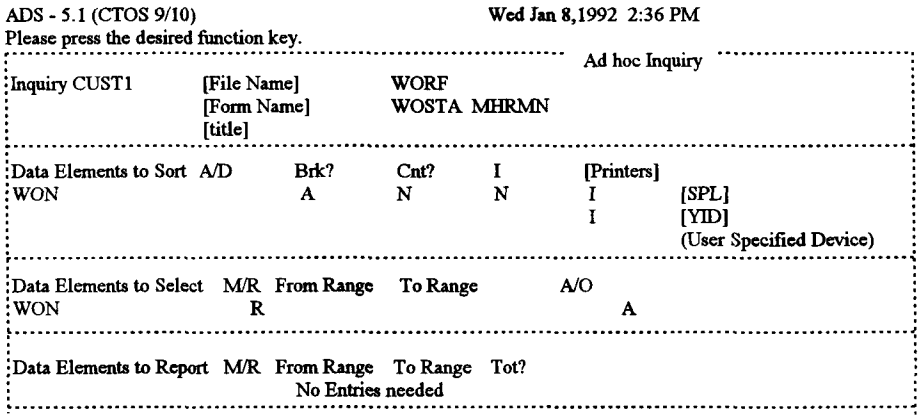
d. What is the status of a specific work order 30 to 60 days old?

e. When will the work be completed?

f. What date was this work order accepted?

2. How to get the information: Start at SAMS-1 BASELINE. Press ⇨ and ⇩ to inquiry, ⇨ to ad hoc inquiry, and GO. At ad hoc inquiry screen type in CUST2 for INQUIRY name and press RETURN. You will be delayed a few minutes while the computer verifies the file structures

Wait for message to instruct you to press desired function key. Press F10 twice to print report. Press FINISH twice to return to main menu



NOTE: This is an ad hoc preformatted report.

FIGURE 2-8 (Cont).

07/04190 14:29:33 WORK ORDER STATUS AND MH REMAINING AD HOC

WON	SHOP	EQNOUN	UICUST	PD	STSPT	DTSPT	MHRMN	DTACP
ACLAAA000584	R	RT-1402	WACLB0	03	M	90101	0.0	90100
ACLAAA000674	R	FCY-2432	WACLA0	03	H	90170	0.0	90120
ACLAAA000767	W	SB-22A/PT	WACLC0	06	K	90190	3.9	90142
ACLAAA000775	W	SB-3614A	WACLA0	03	K	90143	5.0	90143
ACLAAA000789	W	ANTTC41 V4	WACLA0	03	M	90149	1.5	90149
ACLAAA000788	L	ANTRC113V1	WACLA0	03	M	90149	0.0	90149
ACLAAA000785	H	PU-724A	WACLAA	06	M	90166	0.0	90149
ACLAAA000795	L	TD460/G	WACLAA	06	M	90158	0.2	90158
ACLAAA000864	W	PS-76081	WACLB0	06	M	90171	0.2	90169
ACLAAA000880	R	ANJGRC-1 93A	WACLA0	03	R	90205	0.0	90173
ACLAAA000898	W	SB-3614A	WACLA0	03	M	90179	0.0	90178
ACLAAA000908	H	ANUGC74AV3	WACLA0	03	M	90187	0.2	90179

3. The report answers all the questions in paragraph 1. This report is sorted by UICCUS. You can change the sort sequence by listing any of the data elements numbered 6 through 13 under the column titled "Data elements to select by." To select other data elements, see the data element listing for file ID AHN03I in the SAMS-1 User Manual, chapter 7.

4. To find out more about a particular work order, you need the SAMS-1 work order detail report. See figure 2-9.

5. To find out more about the status of the parts requested, go to figure 2-11.

FIGURE 2-9. **Work Order Detail**

1. Question: What information is in the data base on a particular work order?

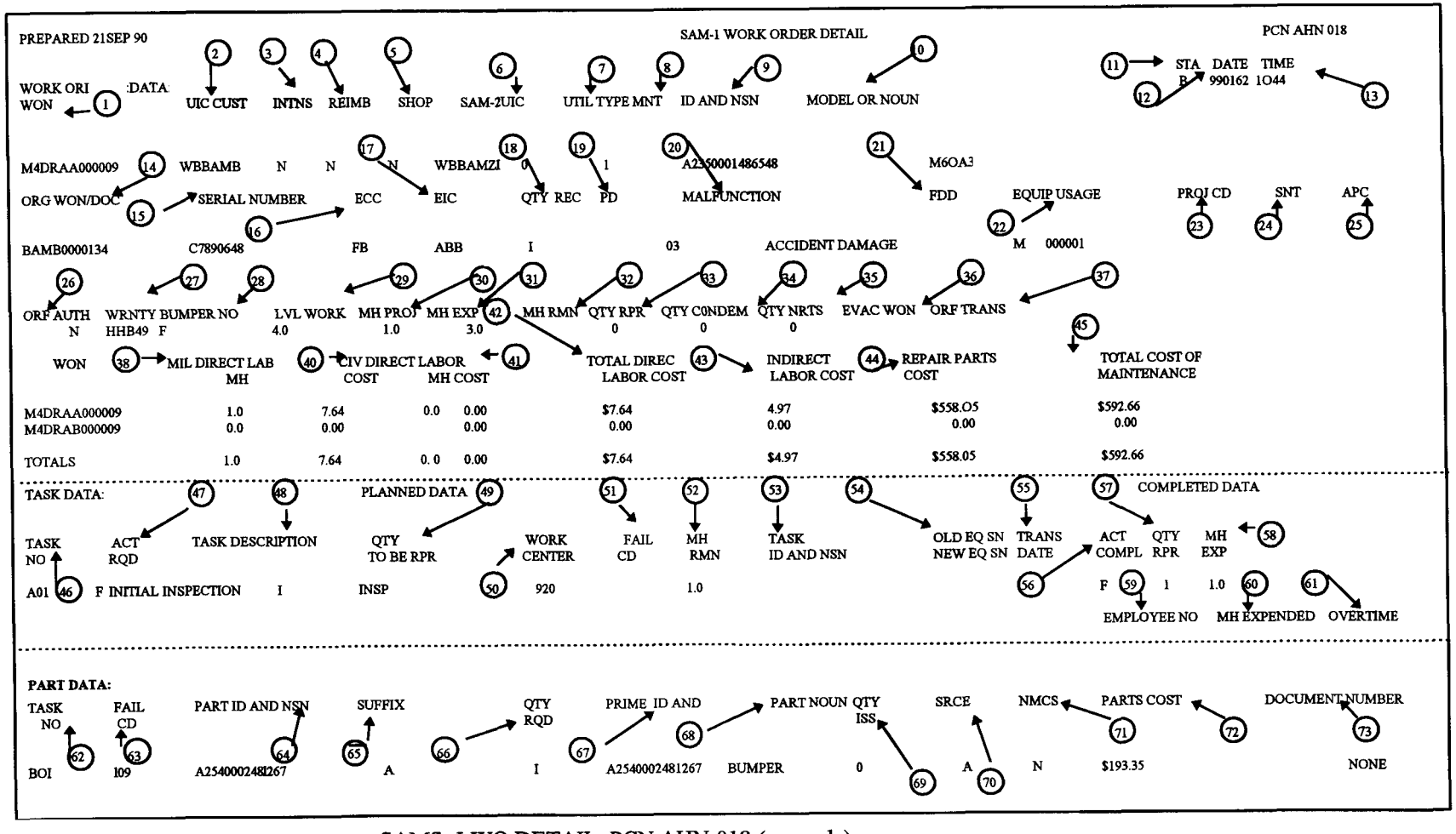
2. How to get the information: Start at SAMS-1 BASELINE. Press ⇨⇩ until the HIGHLIGHTER is over REPORTS. Press ⇨⇨⇩ until the HIGHLIGHTER is over WO DETAIL. Press GO. Type in the work order number you want to inquire about. The entire work order number will fill the highlighted area. Press GO to print report. Note that HELP will not actuate a window that lists work order numbers. You must know the work order number. Press FINISH to return to the main menu.

3. This report provides current detailed information for a particular work order by work order number Information contained in the report includes equipment, customer, and man-hour data; task and repair parts data; and current work order status.

4. This report lists any intra-shop work orders opened against the parent work order, and its intra-shop work orders.

5. Intra-shop tasks and repair parts as well as cost data for bench stock items are not shown on this report.

FIGURE 2-10



SAMS- I WO DETAIL, PCN AHN-018 (example)

FIGURE 2-10 (Cont).

1. WON - The job order number for the item requiring repair.
2. UIC CUSTOMER -The Unit Identification Code of the customer activity that owns the equipment.
3. INTNS CUST - The intransit customer designator; Y or N.
4. REIMB - The reimbursable customer designator; Y or N.INTRA SHOP - The Intra-Shop Code
5. INTRA SHOP- The Intra-Shop Code.
6. SAMS-2 UIC - The Unit Identification Code of the support maintenance activity's SAMS-2 site.
7. UTIL -The Utilization Code.
8. TYPE MNT - The Type Maintenance Code.
9. ID AND NSN - The Identification Designator and National Stock Number of the item being repaired.
10. MODEL OR NOUN - The item model or name.
11. STA - The work order's work request status codes.
12. DATE -The date of each status.
13. TIME - The time of each status.
14. ORG WON/DOC - The Organizational Work Order Number.
15. SERIAL NO - The Serial Number of the item being repaired.
16. ECC - The Equipment Category Code for the end item being repaired. Codes are IAW DA PAM 738-750.
17. EIC - The End Item Code.

SAMS-1 WO Detail, PCN AHN-018 (example) - continued

FIGURE 2-10 (Cont).

18. QTY - Number of items being repaired against the work orders.
19. PD - The priority (01-15) assigned to the maintenance request by the supported unit .FAIL DURING - The Failure Detected During.
20. MALFUNCTION DESCRIPTION - A brief statement of the equipment problem.
21. FAIL DURING - The Failure Detected During Code.
22. EQUIP USAGE - Equipment usage data.
23. PROJ CD - The Project Code.
24. SNT - The Serial Number Tracking Code; Y or N.
25. APC - The Account Processing Code.
26. ORF AUTH - The ORF Stockage Code.
27. WRNTY - The Warranty Designator; Y or N.
28. BUMPER NO -Bumper Identification Number of the item requiring maintenance.
29. LVL WORK - The Level of Work Code.
30. MH PROJ - The number of manhours initially projected to do the work order.
31. MH EXP - The number of manhours currently applied to the work order.
32. MH RMN - The number of manhours remaining to complete the work order.
33. QTY RPR - The Quantity repaired.

SAMS-1 WO Detail, PCN AHN-018 (example) - continued.

FIGURE 2-10 (Cont)

34. QTY CONDEM -The quantity condemned.
35. QTR NRTS - The quantity not reparable at this station.
36. EVAC WON - Work Order Number assigned to the job by the activity to which an item was evacuated.
37. ORF TRANS - The Ordinal Readiness Float Transaction.
38. MIL DIRECT LABOR MH - No of military manhours in hours and tenths applied to the work order.
39. MIL DIRECT LABOR COST - Cost in dollars and cents for the military manhours.
40. CIV DIRECT LABOR MH - Number of civilian manhours in hours and tenths applied to the work order.
41. CIV DIRECT LABOR COST - Cost in dollars and cents for the civilian manhours.
42. TOTAL DIRECT LABOR COST - Military and civilian costs combined for a total direct labor cost.
43. IN DIRECT LABOR COST - Percentage (determined by the maintenance activity) of direct labor cost assigned to cover all other expenses.
44. REPAIR PARTS COST -Total cost of all repair parts used on the work order.
45. TOTAL COST 0F MAINTENANCE - All costs for direct labor, indirect labor, and repair parts combined to provide the total cost of the work order.
46. TASK NO - The number used to identify tasks associated with a work order.
47. ACT RQD - The Action Required Code.
48. TASK DESCRIPTION - A description of the work required to complete the task.
49. QTY TO BE RPR - The number of items to be repaired.
50. WORK CENTER - Name of the work center.
51. FAIL CD - The Failure Code.
52. MH RMN - Manhours remaining for incomplete maintenance tasks.

SAMS- 1 WO Detail, PCN AHN-018 (example) - continued.

FIGURE 2-10 (Cont).

53. TASK ID AND NSN -The ID and NSN of the component covered by the task.
54. OLD AND NEW EQ SN - The Serial Number of the broken component and the Serial Number of the replacement component.
55. TRANS DATE - The transaction date.
56. ACT COMPL - The Action Completed Code.
57. QTY RPR - The Quantity repaired.
58. MH EXP - The total manhours expended on the maintenance task
59. EMPLOYEE NO - The Employee Number is from the maintenance task.
60. MH EXPENDED - Manhours Expended on the maintenance task by the employee.
61. OVERTIME - Overtime Manhours Expended on the maintenance task by the employee.
62. TASK NO - The task for which the part was ordered.
63. FAIL CD - The Failure Code
64. PART AND NSN - The Identifying Number Code and National Stock Number of the part required to repair the item.
65. SUFFIX - The part Suffix Code.
66. QTY RQD - Quantity of that part required to repair the item.
67. PRIME ID AND NSN - The primary Identifying Number Code and National Stock Number of the repair part.
68. PART NOUN - The name of the part.
69. QTY ISS - The quantity issued.

SAMS-1 WO Detail, PCN AHN-018 (example) - continued.

FIGURE 2-10 (Cont).

70. SRCE - The Source Code.

71. NMCS - The Non Mission Capable Supply Code.

72. PARTS COST - The part's unit cost as shown on the Repair Parts Master File.

73. DOCUMENT NUMBER - The Document Number for the part on order against the work order.

SAMS-I WO Detail, PCN AHN-018 (example) - continued.

FIGURE 2-11. **Work Order Supply Request Status**

1. Question: What is the status of the parts requested for a particular work order?

2. How to get the information: From SAMS-1 BASELINE, press ⇨⇩⇨⇩ until the **HIGHLIGHTER** is over **DOC REGISTER**. Press GO. Wait for the screen to appear. Press F7. Press HELP. The report below will appear. The **HIGHLIGHTER** will be over the first document number. Use keys ⇨ or ⇩ to move the **HIGHLIGHTER** to the document number you want to review. Press GO to select the desired document number. To print what you see on the screen, press **CODE** and **COPY** simultaneously.

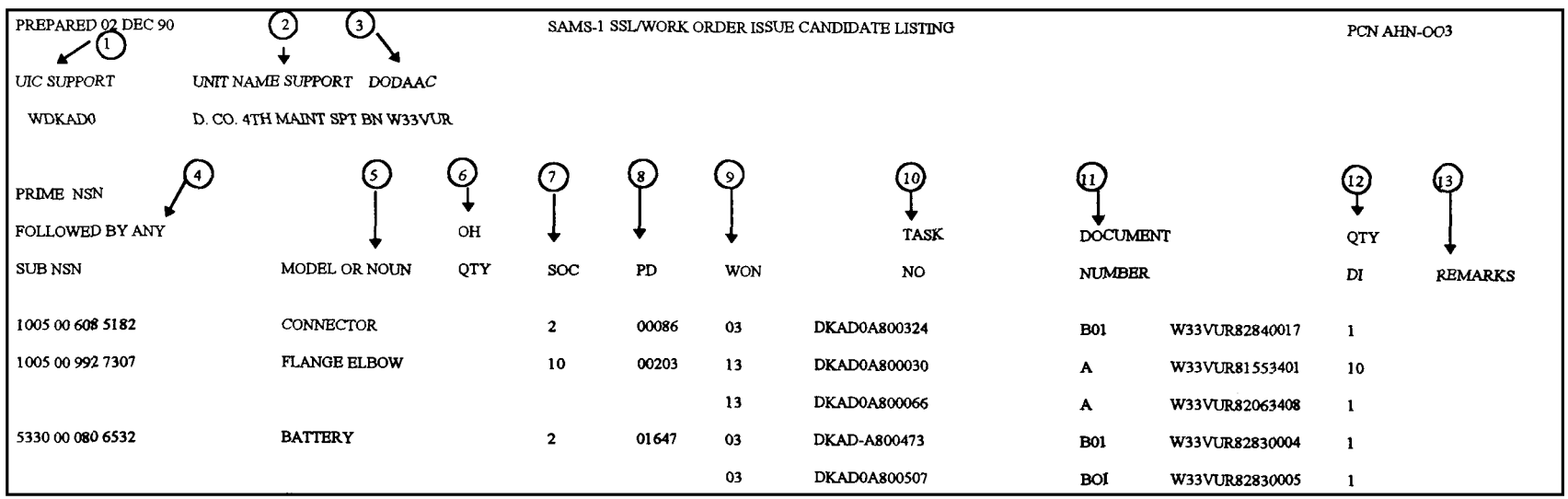
```
ADS - 5.1 (CTOS 9/10)                                  Fri Jul 6, 1990 8:11 AM.
Use [NEXT PG] or [PREV PG] to review. Use [GO1/[CANCEL]/[FINISH] to select

                                                                  I W80Y6L00860001
L21070002                    DOCUMENT REGISTER                    I W80Y6L00610001
                                                                  I W80Y6L01240001
KEY: DOCUMENT NO             W80Y6L01070002   DIC        AK1      I W80Y6L01070001
                                              PD         03       I W80Y6L01070002
WON KEY:          WON        ACLAAA000594     DATE PREP  90142
                  TASK       H02              QTY REQ    00001    DMD CD     R
                  ID         A                QTY DI     00000    SUP ADRS   Y00594
                  NSN        5961012076540    QTY CANC   00000    SIG CD
                  SUFFIX                      QTY REC    00000    EIC GFN
                                              DATE REC            PROJ CD
STIC                         W                QTY EX     00000    RDD        N
PRIME ID/NSN      A 5961012076540             RIC        A        TCN
BSL LOCATION                                  MEDIA               EDDS
                                              APC                 COND CD
     TRNS DATE    STATUS   MODE   ESD        TRNS QTY  EEC       DS4 CD
#1       90107    BM                         00001               FC
#2       90107    BM                         00001               ADV CD
#3       90114    BB              90226      00001               UI         EA
#4       90124    B9                         00001               CLOSED     Y
#5       90127    B9                         00001               SPT DSU
#6       90131    BQ                         00001               SSA DSG    A
```

Highlight WON needed and press GO to pull onto screen

Any number of documents from 1 to 5 can be shown in the window. If less than 5 records are showing, that number is all of the records on file against that WON. You must start from the SAMS-1 baseline to be able to use the HELP key to review all document numbers. Press CANCEL and FINISH to return to main menu.

FIGURE 2-12. SSL/WO Issue Candidate Listing

a. This is a supply report generated in the Reports Activity (section 11).
b. This report lists NSNs for parts on hand in shop stock and work orders for which they are needed.
c. Use this report to match parts on hand with work order apart requisitions that are due-in. Check the Parts Status Detail Listing report (section 11) to see if transferring the part from shop stock to one of the work orders will allow a work order to be put in shop. In situations where more than one work order needs the part, decide which WON has the higher priority. For transfer procedure, refer to the Transfer Parts process in section 6. It is recommended that the Transfer Parts process be per formed after running this report.



PREPARED 02 DEC 90 (1) (2) (3) SAMS-1 SSL/WORK ORDER ISSUE CANDIDATE LISTING PCN AHN-003

UIC SUPPORT — UNIT NAME SUPPORT — DODAAC

WDKAD0 — D. CO. 4TH MAINT SPT BN W33VUR

PRIME NSN (4) FOLLOWED BY ANY SUB NSN	MODEL OR NOUN (5)	OH QTY (6)	SOC (7)	PD (8)	WON (9)	TASK NO (10)	DOCUMENT NUMBER (11)		QTY (12)	REMARKS (13)
1005 00 608 5182	CONNECTOR		2	00086	03	DKAD0A800324	B01	W33VUR82840017	1	
1005 00 992 7307	FLANGE ELBOW		10	00203	13	DKAD0A800030	A	W33VUR81553401	10	
					13	DKAD0A800066	A	W33VUR82063408	1	
5330 00 080 6532	BATTERY		2	01647	03	DKAD-A800473	B01	W33VUR82830004	1	
					03	DKAD0A800507	BOI	W33VUR82830005	1	

SAMS-1 SSL/WO Issue Candidate Listing, PCN AHN-003 (example).

Figure 2-13. Shop Stock List

a. This is a supply report generated in the Reports Activity (section 11).

b. The report provides a list of all lines on the shop stock list. Prime NSNs are listed, followed by their substitute NSNs. Nonstocked NSNs are also shown.

c. The shop officer can use this report to:

(1) See if replenishments are being requested and if appropriate lines are included on the stockage list.

(2) Determining , from posted monthly demand averages, the need for changing nonstocked stockage list codes (SLC) to demand supported SLCs.

(3) Check for excess stockage and to determine the dollar value of the shop stock.

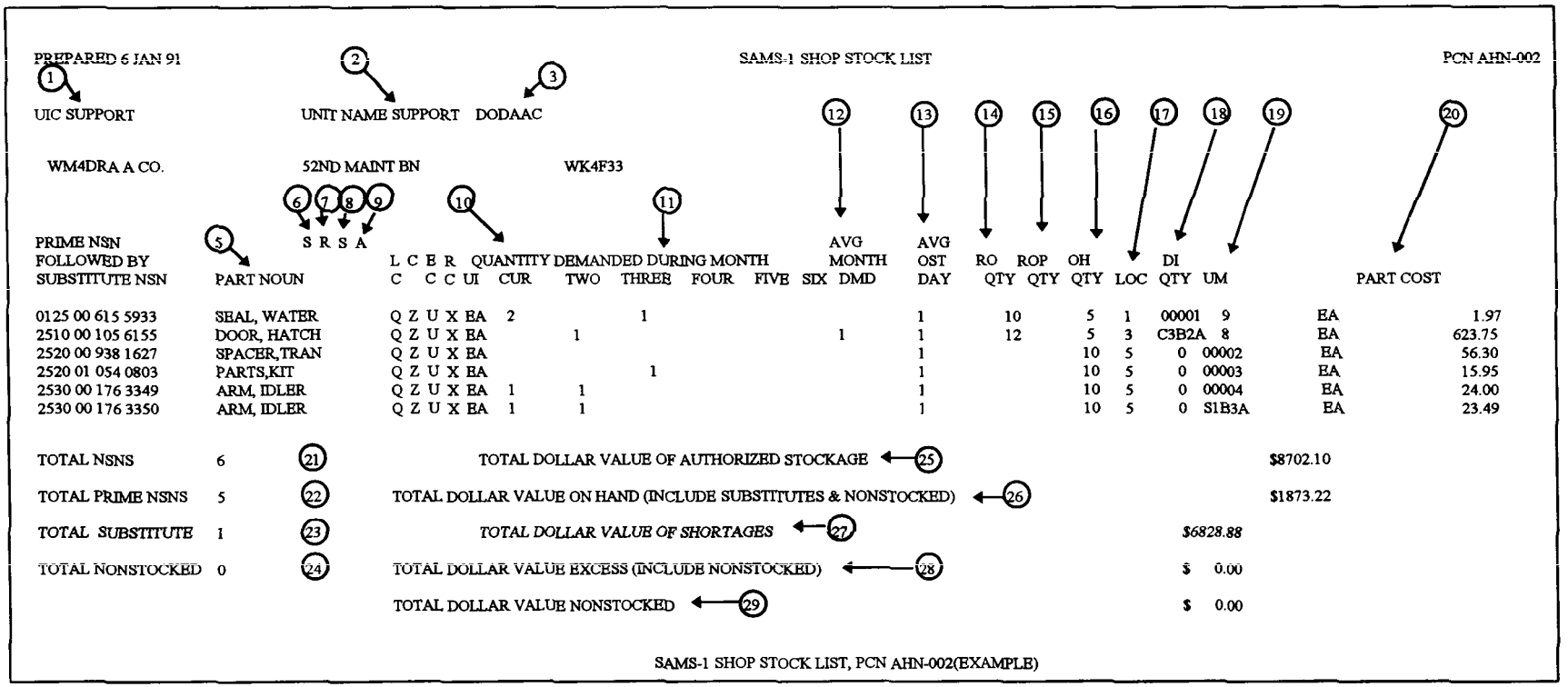


FIGURE 2-13 (Cont).

1. UIC SUPPORT - Unit identification code of the support maintenance activity.
2. UNIT NAME SUPPORT - Name of the supporting maintenance activity in the clear.
3. DODAAC - The Department of Defense Activity Address Code of the supporting maintenance activity.
4. PRIME NSN FOLLOWED BY SUBSTITUTE NSN - The primary National Stock Number for a shop stock item followed by its substitute, if one exits. Substitute NSNs are indented on the report.
5. PART NOUN - The name of the shop stock item.
6. SLC - The stockage list code of the shop stock item.
7. RC - The recoverability code of the shop stock item.
8. SEC - The security classification code. Indicates the item's security classification, security risk, or pilferage controls that are required for storage and transport.
9. ARC - The accounting requirements code.
10. UI - Unit of issue code.
11. QUANTITY DEMANDED DURING MONTH - The number of demands for the item per month. Shows current month and previous five months when unit is Active Army. Shows current month and previous 11 months when unit is National Guard or U.S. Reserve.
12. AVG MONTH DMD - The average number of monthly demands. This number is computed during the RO/ROP process.
13. AVG OST DAY - The average number of days it takes to receive the part through supply channels.
14. RO QTY - The requisitioning objective quantity that is on the item's record in the SSL File.

SAMS-1 Shop Stock List, PCN AHN-002 (example) - continued.

FIGURE 2-13 (Cont).

15. ROP QTY - The reorder point quantity that is on the item's record in the SSL File.
16. OH QTY - The quantity of the part currently on hand in the shop stock.
17. LOC - The part's shop stock location.
18. DI QTY - The current due in quantity for the Shop Stock item.
19. UM - The part's unit of measure as shown on the Repair Parts Master File.
20. PART COST - The part's unit cost as shown on the Repair Parts Master File.
21. TOTAL NSNS - The total number of prime NSNs, and other parts, carried on the shop stock.
22 TOTAL PRIME NSNS - The total number of prime NSNs carried on the shop stock.
23. TOTAL SUBSTITUTE NSNS - The total number of substitute NSNs carried on the shop stock.
24. TOTAL NONSTOCKED NSNS - The total number of NSNs that have a stockage list code of Z.
25. TOTAL DOLLAR VALUE OF AUTHORIZED STOCKAGE - The total dollar value of the authorized shop stock, computed by multiplying the RO's by the unit cost.
26. TOTAL DOLLAR VALUE ON HAND (INCLUDE, SUBSTITUTES $ NONSTOCKED) - The total dollar value of all items on hand in the shop stock. Computed by multiplying the on hand quantities by the unit cost.
27. TOTAL DOLLAR VALUE OF SHORTAGES - The difference between the total dollar value of the authorized stock and the total value of theon hand stock.
28. TOTAL DOLLAR VALUE EXCESS (INCLUDE NONSTOCKED) - The dollar value of all excess stock including nonstocked items. This is the amount of items on hand that exceed a SSL item's RO and items with a SLC of Z.
29. TOTAL DOLLAR VALUE NONSTOCKED - The dollar value of all items that have a SLC of Z.

SAMS-1 Shop Stock List, PCN AHN-002 (example) - continued

FIGURE 2-14. Manager Exception Data Report.

a. This report is generated in the Supply Calculations/Purge Activity, RO/ROP process (section 10). It should not be produced more than once per month.

b. The report list, in NSN sequence, all records that have exceeded the parameters established in the UIC Master File. When a new RO/ROP is calculated for each stockage item on the SSL. The system compares the result with parameters on the UIC Master File. The RO, for example, has a parameter called RO Variance. It is a percentage that the calculated RO can vary from the old RO. If exceeded, the new RO is listed on this report.

c. The shop officer can use the report to review RO and ROP quantities and determine the need to increase or decrease the RO and ROP for items listed. To modify the RO and ROP, follow the procedures in section 6 (Shop Stock List process).

d. Some things to look for are:

(1) Decreasing RO which reflects a decrease in demands and stockage requirement.

(2) Increasing RO which means more dollars are required because of an increase in stockage.

(3) Increasing OST which meanness more parts must be stocked based on the interval from requisitioning to receipt.

PREPARED 31 JAN 94 — SAMS-1 MANAGER EXCEPTION DATA — PCN AHN 014

UIC SUPPORT	UNIT NAME SUPPORT		DODAAC	OST MGR	OST RNG							
WDKAD0	D CO. 4TH MSR		WK4KST		26							
PART NSN	PART NOUN	UM	QTY DMD CUR MO	DEMAND AVERAGE	OST CURR	ROP CURR	QUANTITY RECM	RO QUANTITY CURR	RO QUANTITY RECM	MGR RO LOWER	RANGE UPPER
2920 00 800 7218	REGULATOR	EA	8	7	16	6	8	9	13	7	19
2930 00 678 0770	FAN, BLADE	EA	2	6	12	3	5	5	8	4	8
2930 00 678 1849	PUMP, WATER	EA	0	1	13	5	0	10	1	1	18
2930 00 678 3235	HOUSING, THER	EA	0	0	22	5	0	10	0	2	3

SAMS-1 Manager Exception Data, PCN AHN-014 (example).

FIGURE 2-14 (Cont).

1. UIC SUPPORT - Unit Identification Code of the supporting maintenance activity.
2. UNIT NAME SUPPORT - Name of the supporting maintenance activity in the clear.
3. DODAAC - The Department of Defense Activity Address Code of the support activity.
4. PART NSN - The National Stock Number of the part.
5. PART NOUN - The name of the part on requisition.
6. UM - The unit of measure for the part.
7. QTY DMD CURR MO - The number of demands made for the part during the current month.
8. DEMAND AVERAGE - The average number of demands during the period.
9. OST MGR - The Order Ship Time Manager Number. Comes from the UIC Support Record.
10. OST RNG - The highest number of days the OST Variance will allow an OST Average to exceed the OST Manager.
11. OST CURR - The current Order Ship Time experienced for the part.
12. ROP QUANTITY CURR - The current Reorder Point Quantity for the SSL.
13. ROP QUANTITY RECM - The new Recommended ROP Quantity which is computed by the system.
14. RO QUANTITY CURR - The current Requisitioning Objective Quantity for the SSL.
15. RO QUANTITY RECM - The new Recommended RO which is computed by the system.
16. MGR RO RANGE LOWER - The lowest RO the system will set based on the percent entered in the RO Variance Field on the UIC Support Record.
17. MGR RO RANGE UPPER - The highest RO the system will set based on the percent entered in the RO Variance Field on the UIC Support Record.

SAMS-1 Manager Exception Data, PCN AHN-014 (example).

FIGURE 2-15. **Excess Stockage Shop Stock**

1. Questions:

a. Are there any nonstockage lines with quantities on hand for more than 30 days?

b. What is excess?

2. How to get the information: From SAMS-1 BASELINE. Press ⇨⇩ until INQUIRY is highlighted. From INQUIRY press ⇨ until ad hoc inquiry is highlighted. Press GO. The ad hoc inquiry screen will appear. At ad hoc inquiry screen, type SSL2 for inquiry name and press RETURN. You will be delayed several minutes while the computer verifies the file structures. Wait for message to instruct you to press desired function key. Press F10 twice to print report. Press FINISH twice to return to main menu.

ADS - 5.1 (CTOS 9/10) Wed Jul 4,1990 2:32 PM

Please press the desired function key. Ad hoe Inquiry

07/04/91 14:32:34 SHOP STOCK LIST AD HOC

PART ID	NSN	SLC	LOC	RO	ROP	OH	Dl	DMDAV	OSTAV
A	1670011925535	Z	A0001	90152	00000	00001	00000	00000	000
A	4140004978402	Z	A0002	90152	00000	00001	00000	00000	000
A	5280002265364	Z	A0003	90152	00000	00001	00000	00000	000

NOTE:This is an ad hoc performatted report

FIGURE 2-16. **Shop Stock Zero Balance Lines**

1. Question: What are the zero balance lines and due-in quantities below the ROP?
2. How to get the information: (Do an ad hoc inquiry of the shop stock list for on-hand lines with zero balance.) From SAMS 1 BASE LINE PRESS ⇨⇩⇩⇩⇨ to AD HOC INQUIRY on the menu. Press GO. The data base inquiry screen will appear. Type SSZBL, press RETURN, type SSL and RETURN. The system will require several minutes to verify file structures. When file structures are verified enter the remaining data elements as noted in example. Press RETURN and GO following the last entry under "Data Elements to Report" Press F10 twice to print this report and FINISH to return to main menu. Press F8 if you only want to see the report on the screen.

ADS - 5.1 (CTOS 9/10) Fri Jan 31, 1992 1:49 PM
Enter field(s) to report Press [HELP] for list Press [FINISH] when done

04/30/90 08:16 AD HOC REPORT PAGE 1

PARTNSN	OH	RO	ROP
1005008724441	00000	00005	00002
1005011343701	00000	00005	00002
1005011467684	00000	00018	00006
1010004387414	00000	00008	00003
1015007384279	00000	00002	00001
1290002572769	00000	00010	00004
1420011084211	00000	00002	00001

NOTE: System will not allow for reporting of the part noun the part noun..

FIGURE 2-16 (Cont).

3. This report and the SSL file will not give complete D. I. information. To find valid D. I. information on replenishment shop stock items, do ad hoc inquiry of the document register.

4. Do an analysis of the zero balance report; determine if there is an excessive number of zero balances. Compare this report, by NSN, with the report from the document register. Determine if timely replenishment requisitions are being submitted and that the due-in are equal to or greater than the ROP.

FIGURE 2-17. **Due-in Shop Stock Replenishment**

1. Question: What are the valid D.I. shop stock lines and are these due-in quantities below the ROP?

2. How to get the information: From SAMS-1 BASELINE. Press ⇨⇩⇩⇩⇨ . Press GO. The data base inquiry screen will appear. Press RETURN, type DISSR, press RETURN, type DOC REG, and press RETURN. The system will require several minutes to verify file structures. When file structures are verified, enter remaining data elements as noted in example. Press RETURN and GO following the last entry under "Data Elements to Report." Press F10 twice to print report and FINISH to return to menu. Press F8 if you only want to see the report on the computer screen.

```
ADS - 5.1 (CTOS 9/10)                          Fri Jan 31, 1992 2:56 PM
Enter field(s) to report  Press help] for list     Press [FINISH] when done.
                                                  Ad hoc Inquiry-
 Inquiry DISSR      File Name  DOCREG
                    [Form Name]
                    [Title]    DUE-IN SHOP STOCK REPLENISHMENT

 Data Elements to Sort A/D     Brk?    Cnt?   I  Printers
 PRIME NSN            A        N       N     I >[SPL]
                                             I  [VID]
                                             I  User Specified Device

 Data Elements to Select  MIR   From Range      To Range   A/O
 STIC                     R     S               S          A
 DI                       R     1               999        A

 Data Elements to Report  Length  Column Heading   Tot?
 PRIME NSN                  16      PRIMENSN       N
 REQ                         5      REQ            N
 DI                          5      DI             N
 DOCNO                      14      DocNo          N
```

```
04/30/90 08:22        AD HOC REPORT              PAGE 1

PRIME NSN          REQ     DI      DOCNO
A1005006085091     00001   00001   W340V200600048
A1015000732068     00001   00001   W340V290750100

A1440004859629     00001   00001   W34QV293180005
A5805006980429     00017   00017   w34OV200600047
A5815000454487     00001   00001   W340V200600042
A5820001311945     00003   00003   W340V200600046
A5820008535917     00002   00002   W340V200600050

A5820010928097     0022    00022   W340V200600051
A5820010941309     0027    00003   W340V293480034
A5820010941311     00001   00001   W34QV290760001
A5855001250414     00003   00003   W340V200600052
```

nsn sequence the same sequence as your shop stock list

Due in This should match the DI quantity on your shop stock list. If not, adjust it through shop stock process

3. The shop officer reviews and compares the shop stock zero balance (figure 2-15) and the document register reports (figure 2-16) and looks for lines that have due-in quantities less than the ROP. This review helps the shop officer ensure his supply clerk has ordered replenishments .

FIGURE 2-18. **Reconciliation - Due-in Stockage and Storage Location**

1. Question:
a. What is my location accuracy in shop stock?
b. Are due-in's valid?
2. How to get information: Start at SAMS-1 baseline. Press ⇨ and ⇩ to inquiry, => to ad hoc inquiry, and GO. At ad hoc inquiry screen, type in SSL1 for inquiry name and press RETURN. You will be delayed several minutes while the computer verifies file structures. Wait for message to instruct you to press desired function key. Press F10 twice to print report.

04/90 14:41:55 AD HOC REPORT - SSL#1 PAGE 1

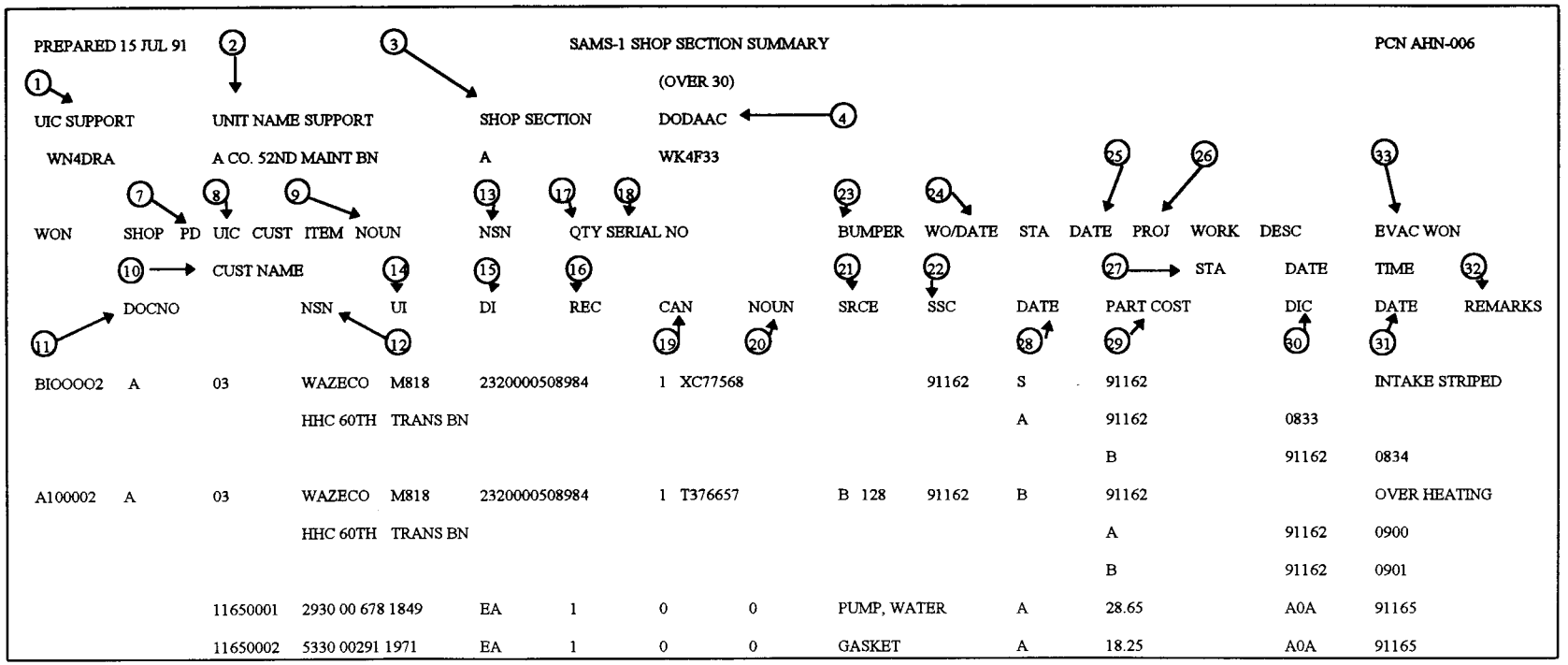
Part 1	NSN	Part Noun RO	DI	OH	Count	OH Loc	Adj(+/-)	Remarks New Loc
A	5821000899208	GENERATOR	00002	00000	00005		5A	
A	5855001250414	FRAME ASSY	00005	00003	00002		14H	
A	6210010112116	LIGHT INDICA	00005	00005	00000		141	
A	1005011346737	PISTON, G	00003	00001	00002		00001	
A	1005011285472	FEED TRA	00005	00000	00005		00002	
A	3915008493468	FILTER	00004	00000	00000		00003	
A	304000239584	GEARSHAF	00002	00002	00000		00004	
A	1005011285468	SLIDE	00003	00000	00003		00005	
A	5821001296725	AMPLIFIE	00005	00005	00000		00022	
A	5821001296726	DISCRIMI	00005	00000	00005		00025	

NOTE: This is an ad hoc preformatted report.

3. Use this report to conduct and record the results of your survey. Lines with matching locations divided by the total lines give you the percent of accuracy.
4. Reconcile shop stock due-in quantity using shop stock due-in, from document register, figure 2-17. The report in figure 2-17 will show you valid DIs.

FIGURE 2-19. **Shop Section Summary Report.**

a. This is a maintenance report generated in the Reports Activity (section 11).
b. The report lists all open work orders and their status histories for each shop section. It also shows WO parts requirements and any supply action taken to meet them. The report only lists parts that are on the Document Register. You can limit the report to show only current work order data; show data only for one shop; or show only data over 30. 60, or 90 days old.
c. The report should be run daily to detect trends and review backlog and status of work in progress.
d. This report lists document number due-ins for each work order. It does not show document number with a request for conciliation (AC_) or part requirements that do not have a document number.



PREPARED 15 JUL 91 — SAMS-1 SHOP SECTION SUMMARY (OVER 30) — PCN AHN-006

UIC SUPPORT: WN4DRA
UNIT NAME SUPPORT: A CO. 52ND MAINT BN
SHOP SECTION: A
DODAAC: WK4F33

WON	SHOP	PD	UIC	CUST	ITEM	NOUN	NSN	QTY	SERIAL NO	BUMPER	WO/DATE	STA	DATE	PROJ	WORK	DESC	EVAC WON
	CUST NAME												STA		DATE		TIME	REMARKS
	DOCNO			NSN		UI	DI	REC	CAN	NOUN	SRCE	SSC	DATE	PART COST		DIC	DATE	
BIOOOO2	A		03	WAZECO		M818	2320000508984		1 XC77568			91162	S	91162			INTAKE STRIPED	
				HHC 60TH		TRANS BN							A	91162		0833		
													B	91162		0834		
A100002	A		03	WAZECO		M818	2320000508984		1 T376657		B 128	91162	B	91162			OVER HEATING	
				HHC 60TH		TRANS BN								A	91162		0900	
														B	91162		0901	
			11650001	2930 00 678 1849			EA	1	0	0	PUMP, WATER		A	28.65		A0A	91165	
			11650002	5330 00291 1971			EA	1	0	0	GASKET		A	18.25		A0A	91165	

SAMS-1 Shop Section Summary, PCN AHN-003 (example).

FIGURE 2-19 (Cont).

1. UIC SUPPORT - Unit Identification Code of the supporting maintenance activity.
2. UNIT NAME SUPPORT - Name of the supporting maintenance activity in the clear.
3. SHOP SECTION - The shop section code.
4. DODAAC - The Department of Defense Activity Address Code of the support unit.
5. WON - The job order number for the item requiring repair.
6. SHOP - The shop section code.
7. PD - The priority designator (1-15) assigned to the maintenance request by the supported unit.
8. UIC CUST - The Unit Identification Code of the customer activity that owns the equipment.
9. ITEM NOUN - The item name or model number.
10. CUST NAME - Name of the customer in the clear.
11. DOCNO - The document number(s) for parts ordered against the work order.
12. NSN - The National Stock Number of the part required to repair the item.
13. NSN - The National Stock Number of the item being repaired.
14. UI - The unit of issue of the repaired part.
15. DI - The quantity of parts ordered that are due in.
16. REC - The quantity of parts ordered that have been received.
17. QTY - Number of items being repaired against the work order.

SAMS-1 Shop Section Summary, PCN AHN-006 (example) - continued.

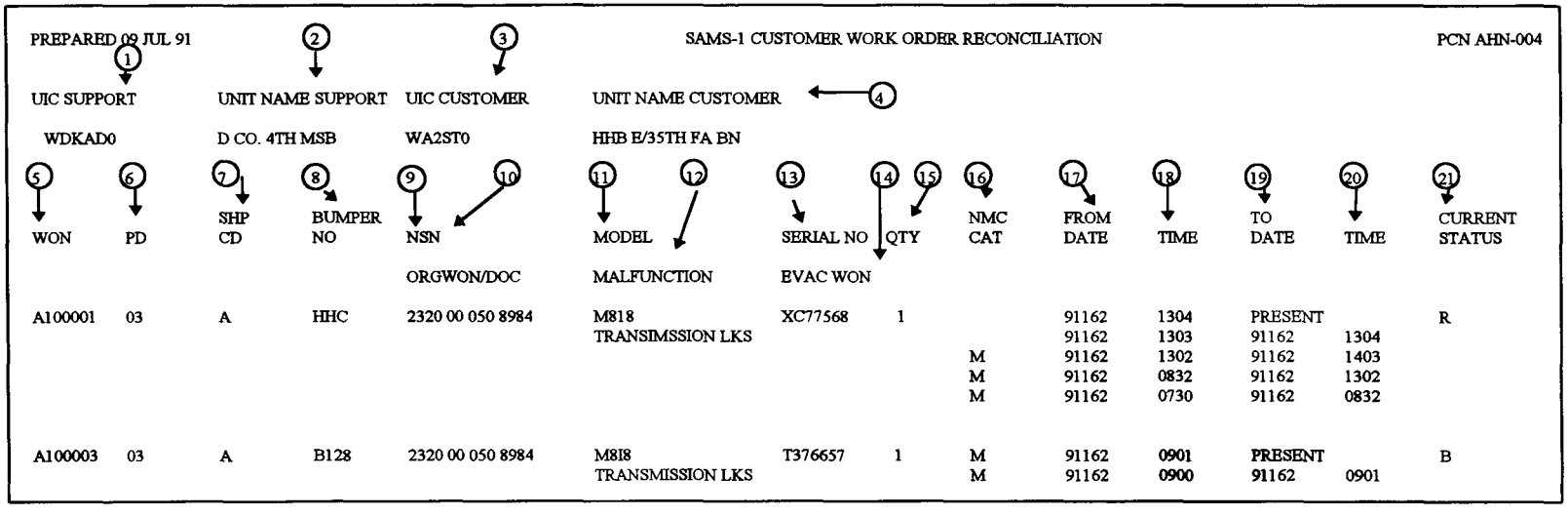
FIGURE 2-19 (Cont).

18. SERIAL NUMBER - The serial number of the item being repaired.
19. CAN - The quantity of parts ordered against the work order that have been canceled.
20. NOUN - The name of the part that was ordered.
21. SRCE - The Source Code for the part on order.
22. SSC - The current Supply Status Code as shown on the document register.
23. BUMPER - The Bumper Identification Number of the item requiring maintenance.
24. WO/DATE - The date the work order was received at the maintenance activity.
25. STA DATE - The current status code and date.
26. PROJ and WORK DESCR - The WO Project Code. A brief statement of the equipment problem.
28. STATUS DATE TIME - The status history of the work order.
28. DATE - Supply Status date.
29. PARTS COST - The unit price for each part ordered.
30. DIC - The Document Identifier Code of the requisition.
31. DATE - The date of the requisition.
32. REMARKS - Space provided for notes. If notes are entered on the Parts Maintenance Screen, and the quantity issued is less that the quantity required, the note will be repeated.
33. EVAC WON -= Work Order Number assigned to the job by the activity to which an item was evacuated.

SAMS-1 Shop Section Summary, PCN AHN-006 (example)

FIGURE 2-20. **Customer WO Reconciliation.**

a. This maintenance report is generated in the Reports Activity (section 11).
b. This report provides a list of all work orders for equipment on hand, by customer. It also provides the status of these work orders.
c. Use this report to compute time non mission capable supply (NCMS) and non mission capable maintenance (NMCM). The abbreviation EVAC is printed in the NMC CAT column for work orders in L, M, or N status.



PREPARED 09 JUL 91 — SAMS-1 CUSTOMER WORK ORDER RECONCILIATION — PCN AHN-004

UIC SUPPORT	UNIT NAME SUPPORT	UIC CUSTOMER	UNIT NAME CUSTOMER
WDKAD0	D CO. 4TH MSB	WA2ST0	HHB E/35TH FA BN

WON	PD	SHP CD	BUMPER NO	NSN / ORGWON/DOC	MODEL / MALFUNCTION	SERIAL NO / EVAC WON	QTY	NMC CAT	FROM DATE	TIME	TO DATE	TIME	CURRENT STATUS
A100001	03	A	HHC	2320 00 050 8984	M818	XC77568	1		91162	1304	PRESENT		R
					TRANSIMSSION LKS				91162	1303	91162	1304	
								M	91162	1302	91162	1403	
								M	91162	0832	91162	1302	
								M	91162	0730	91162	0832	
A100003	03	A	B128	2320 00 050 8984	M8I8	T376657	1	M	91162	0901	PRESENT		B
					TRANSMISSION LKS			M	91162	0900	91162	0901	

SAMS-1 Customer WO Reconciliation, PCN AHN-004 (example) **continued.**

FIGURE 2-20 (Cont)

1. UIC SUPPORT - Unit Identification Code of the supporting activity.
2. UNIT NAME SUPPORT - Name of the supporting maintenance activity in the clear.
3. UIC CUSTOMER - Unit Identification Code of the customer.
4. UNIT NAME CUSTOMER - Name of the customer activity in the clear.
5. WON - The job order number for the item awaiting/being repaired.
6. PD - The priority (01-15) assigned to the maintenance request by the supported unit.
7. SHOP CD - the shop code of the section performing the work.
8. BUMPER NO - Item's bumper identification number.
9. NSN - The National Stock Number of the item being repaired.
10. ORG WOR/DOC - The Organizational Work Order Numbers.
11. MODEL - The model number of the item of equipment being repaired.
12. MALFUNCTION - A brief statement of the equipment problem.
13. SERIAL NO - The serial number of the item being repaired.
14. EVAC WON - Work Order Number assigned to the job by the activity to which the item was evacuated.
15. QTY - The number of items being repaired against the WON.
16. NMC CAT - The category under which the item's non mission capable time is being tracked, either M (Maintenance) or S (Supply) or EVAC (evacuated). If ???? appears in this category, then there is something wrong with the status history of the work order.
17. FROM DATE - The date the work order was placed in a particular status.
18. TIME - The time the work was placed in a particular status.

SAMS-1 Customer WO Reconciliation PCH AHN- 004 (example) - continued.

FIGURE 2-20 (Cont)

19. TO DATE - The date the work order status changed.
20. TIME - The time the work order status changed.
21. CURRENT STATUS - the current work request status code of the work order.

SAMS-1 Customer WO Reconciliation, PCN AHN-004 (example) - continued.

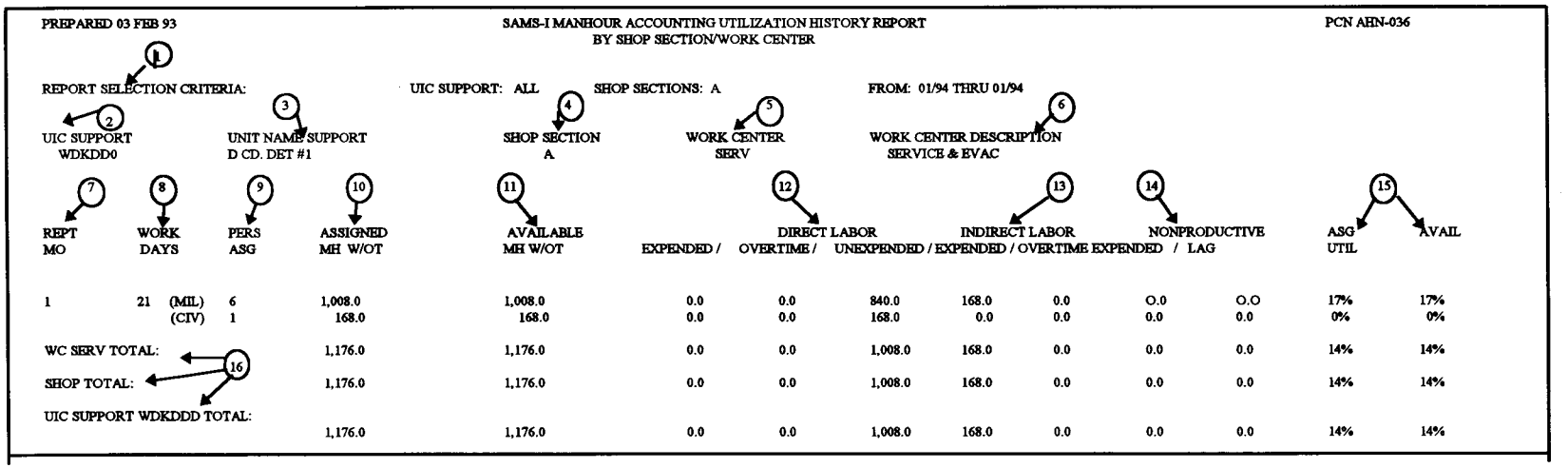
FIGURE 2-21. **Manhour Accounting Utilization History Report**

a. This report is generated in the Reports Activity (section 11).

b. This report is the same as the Manhour Accounting Transfer Report , PCN AHN-035, in that it provides the current month's records. (See fig. C-40.) However, if historical records are on file, they can be printed as well.

c. Historical records that are selected will be printed above the current month's records. Selection is made from those dates that are displayed in parentheses on the parameter screen prior to printing the report.

d. Data is summarized by Shop Section and by Maintenance Activity. The manhour categories are explained in section 7 and Appendix B. The labor utilization rate is computed as follows: (MIL & CIV PRODUCTIVE TIM + OVERTIME) ./. (MIL & DIV AVAILABLE TIME + OVERTIME) X 100. PRODUCTIVE TIME= BOTH DIRECT AND INDIRECT MANHOURS. AVAILABLE TIME IS BASED ON AN 8 HOUR WORKDAY.



PREPARED 03 FEB 93 — SAMS-I MANHOUR ACCOUNTING UTILIZATION HISTORY REPORT BY SHOP SECTION/WORK CENTER — PCN AHN-036

1 REPORT SELECTION CRITERIA: UIC SUPPORT: ALL SHOP SECTIONS: A FROM: 01/94 THRU 01/94

2 UIC SUPPORT WDKDD0 | 3 UNIT NAME SUPPORT D CD. DET #1 | 4 SHOP SECTION A | 5 WORK CENTER SERV | 6 WORK CENTER DESCRIPTION SERVICE & EVAC

7 REPT MO	8 WORK DAYS	9 PERS ASG	10 ASSIGNED MH W/OT	11 AVAILABLE MH W/OT	12 DIRECT LABOR EXPENDED /	OVERTIME /	UNEXPENDED /	13 INDIRECT LABOR EXPENDED /	OVERTIME	14 NONPRODUCTIVE EXPENDED /	LAG	15 ASG UTIL	AVAIL
1	21 (MIL)	6	1,008.0	1,008.0	0.0	0.0	840.0	168.0	0.0	O.O	O.O	17%	17%
	(CIV)	1	168.0	168.0	0.0	0.0	168.0	0.0	0.0	0.0	0.0	0%	0%
WC SERV TOTAL:			1,176.0	1,176.0	0.0	0.0	1,008.0	168.0	0.0	0.0	0.0	14%	14%
SHOP TOTAL:			1,176.0	1,176.0	0.0	0.0	1,008.0	168.0	0.0	0.0	0.0	14%	14%
UIC SUPPORT WDKDDD TOTAL:			1,176.0	1,176.0	0.0	0.0	1,008.0	168.0	0.0	0.0	0.0	14%	14%

16

SAMS-1 Manhour Accounting Utilization Report, PCN AHN-036 (example).

FIGURE 2-21 (Cont)

1. REPORT SELECTION CRITERIA - Selections available include: a specific UIC or all; a specific shop section or a total of six; and report period.
2. UIC SUPPORT - Unit Identification Code of the supporting maintenance activity.
3. UNIT NAME SUPPORT - Name of the supporting maintenance activity in the clear.
4. SHOP SECTION - Shop Section Code, can be A thru Z or 0-9. Identifies the shop section whose work centers are displayed, e.g. A = Automotive Shop, B = Battery Shop, C = Commo Shop.
5. WORK CEN - Work Center Code.
6. WC DESCRIPTION - Brief description of the work center.
7. REPT MO - Report month.
8. WORK DAYS - Labor days available. The number of days available is entered in the Update Work Days/Manhours process. An incorrect entry will produce an erroneous utilization percentage.
9. PER ASG - The number of personnel performing direct and indirect labor at this work center. Military and civilian number are listed separately.
10. ASSIGNED MH W/OT - Total assigned manhours from the personnel file, to include direct and indirect labor overtime.
11. AVAILABLE MH W/OT - The assigned manhours, plus minus non-productive labor lag time.
12. DIRECT LABOR - Prints direct labor manhours in the following categories:
    a. EXPENDED - The number of direct labor, codes 01 or 06, manhours worked during the reporting period.
    b. OVERTIME - Direct Labor Overtime hours expended during the report period. It shows those hours which exceed the standard work day.

SAMS-I Manhour Accounting Utilization Report, PCN AHN-036 (example) - continued.

FIGURE 2-21 (Cont).

c. UNEXPENDED - Unused manhours.

13. INDIRECT LABOR - Prints indirect labor manhours in the following categories:

a. EXPENDED - The number of indirect labor, codes 03-17, less 06, manhours worked during the reporting period

b. OVERTIME - Indirect labor overtime hours expended during the report period. It shows those hours which exceeded the standard work day.

14 NONPRODUCTIVE - Prints nonproductive manhours in the following categories:

a. EXPENDED - The number of nonproductive manhours expended during the report period.

b. LAG - The number of lag time manhours during the report period.

15. UTIL PERCENT - Prints the utilization percentages in the following categories:

a. ASG - The Productive Manhours divided by the Assigned Manhours to include all overtime.

b. AVAIL - The Productive Manhours + (ALL Nonproductive - Lag Time) + Overtime divided by Available Manhours + Overtime Manhours.

16. TOTALS - Prints totals for each column by shop section.

a. Work Center.

b. Shop Section.

c. Maintenance Activity.

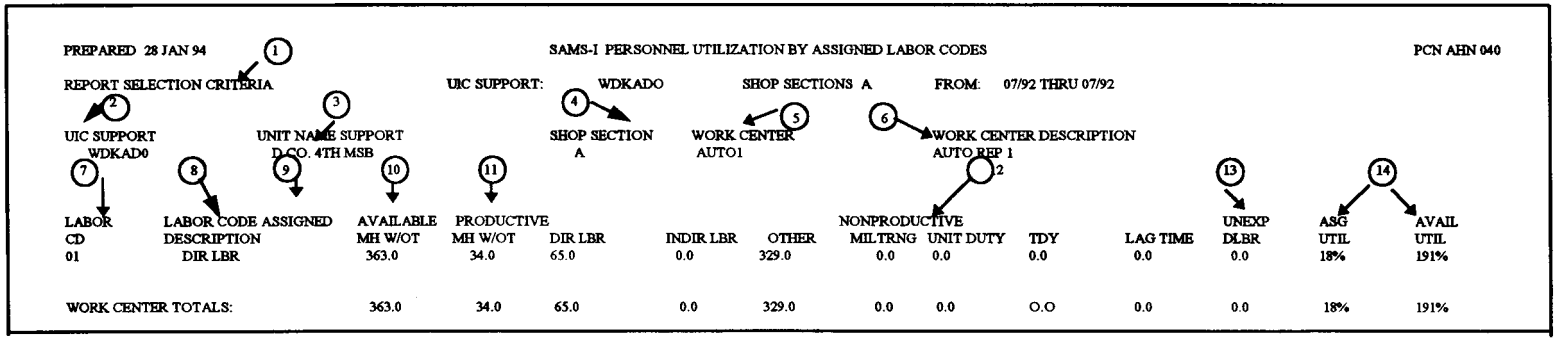
SAMS-I Manhour Accounting Utilization Report, PCN AHN-036 (example) - continued

FIGURE 2-22. **Personnel Utilization by Assigned Labor Reports**

a. This report is generated in The Reports Activity (section 11).

b. This report provides a summary of the manhours assigned and expended, by assigned labor code, for all work centers and shop sections of the DSU/GSU.

c. Current month's records as well as historical records can be selected. This report should be printed on a weekly basis but may be printed as often as required.



1. REPORT SELECTION CRITERIA- Prints report selection criteria.

2. UIC SUPPORT - Unit Identification Code of the supporting maintenance activity.

3. UNIT NAME SUPPORT - Name of the supporting maintenance activity in the clear.

4. SHOP SECTION - The Shop Section Code.

SAMS- I Personnel Utilization by Assigned Labor Codes Report, PCN AHN-040 (example).

FIGURE 2-22 (Cont).

5. WORK CENTER - Work Center Code.

6. WORK CENTER DESCRIPTION - Brief description of the work center.

7. LBR CD - Lists the assigned labor distribution codes.

8. LABOR CODE DESCRIPTION - Prints the name of the labor code listed in the first column.

9. ASSIGNED MANHOURS W/OT - Totaled by assigned labor codes taken from the personnel file. It includes direct and indirect labor overtime.

10. AVAILABLE MANHOURS W/OT - The assigned manhours, plus overtime, minus non-productive labor except lag time.

11. PRODUCTIVE MANHOURS - Prints productive manhours in the following categories:

    a. DIRECT LABOR EXPENDED - The number of direct labor, codes 01 or 06, manhours worked during the reporting period.

    b. INDIRECT LABOR EXPENDED - The number of indirect labor, codes 03-17 less 06, plus Maintenance Technical Training manhours worked during the reporting period.

12. MANHOURS EXP IN NON PRODUCTIVE ACTIVITY- Prints nonproductve manhours in the following categories:

    a. OTHER - The number of nonduty absences, codes 40 thru 50, manhours expended during the month.
    b. MIL TRNG - The number of military training manhours expended during the month.

    c. UNIT DUTY - The number of unit duty manhours expended during the month.

    d. TDY - The number of TDY, manhours expended during the month

    e. LAG TIME - The number of lag time, manhours expended during the month.

SAMS-I Personnel Utilization by Assigned Labor Codes Report, PCN AHN-040 (example) - continued.

FIGURE 2-22 (Cont).

13. UNEXP DLBR - The difference between available manhours and manhours used.

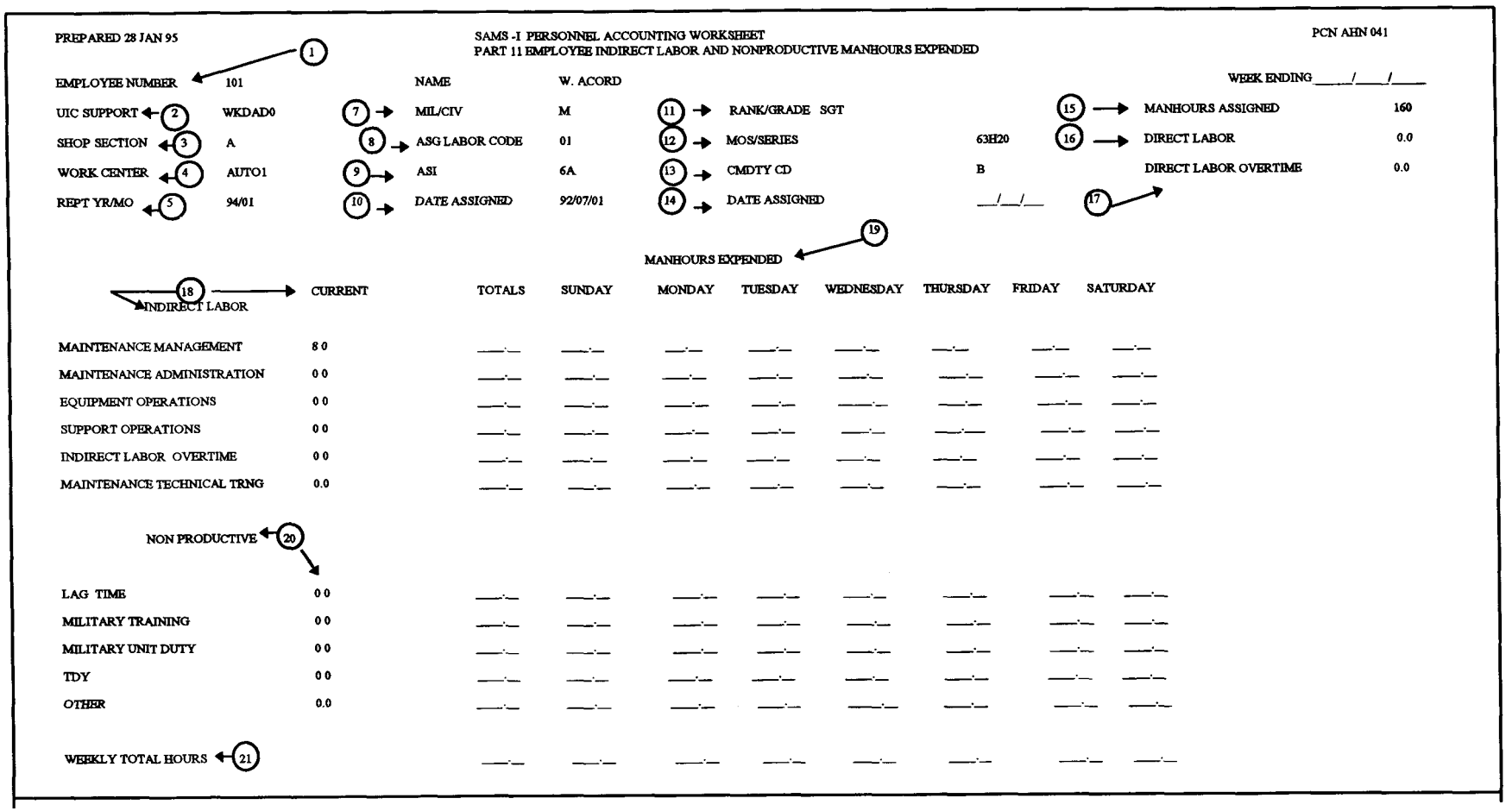
14. UTIL PERCENT - Prints the utilization percentages in the following categories:

    a. ASG UTIL - The Productive Manhours divided by the Assigned Manhours to include all overtime.

    b. AVAIL UTIL - The Productive Manhours divided by the Available Manhours, to include all overtime.

SAMS-1 Personnel Utilization by Assigned Labor Codes Report, PCN AHN-040 (example) - continued.

FIGURE 2-23.



PREPARED 28 JAN 95

SAMS -I PERSONNEL ACCOUNTING WORKSHEET
PART 11 EMPLOYEE INDIRECT LABOR AND NONPRODUCTIVE MANHOURS EXPENDED

PCN AHN 041

WEEK ENDING ____/____/____

(1) EMPLOYEE NUMBER	101	NAME	W. ACORD				
(2) UIC SUPPORT	WKDAD0	(7) MIL/CIV	M	(11) RANK/GRADE	SGT	(15) MANHOURS ASSIGNED	160
(3) SHOP SECTION	A	(8) ASG LABOR CODE	01	(12) MOS/SERIES	63H20	(16) DIRECT LABOR	0.0
(4) WORK CENTER	AUTO1	(9) ASI	6A	(13) CMDTY CD	B	DIRECT LABOR OVERTIME	0.0
(5) REPT YR/MO	94/01	(10) DATE ASSIGNED	92/07/01	(14) DATE ASSIGNED	__/__/__	(17)	

(19) MANHOURS EXPENDED

(18) INDIRECT LABOR	CURRENT	TOTALS	SUNDAY	MONDAY	TUESDAY	WEDNESDAY	THURSDAY	FRIDAY	SATURDAY
MAINTENANCE MANAGEMENT	8 0								
MAINTENANCE ADMINISTRATION	0 0								
EQUIPMENT OPERATIONS	0 0								
SUPPORT OPERATIONS	0 0								
INDIRECT LABOR OVERTIME	0 0								
MAINTENANCE TECHNICAL TRNG	0.0								
(20) NON PRODUCTIVE									
LAG TIME	0 0								
MILITARY TRAINING	0 0								
MILITARY UNIT DUTY	0 0								
TDY	0 0								
OTHER	0.0								
(21) WEEKLY TOTAL HOURS									

Personnel Manhour Exception Worksheet, PCN AHN-041, Part II- Employee Indirect Labor and Nonproductive Manhours Expended (example).

FIGURE 2-23 (Cont).

1. EMPLOYEE NUMBER - The number, other than the Social Security Number, assigned to the employee.
2. UIC SUPPORT - The unit Identification Code or the support maintenance unit to which the employee is assigned.
3. SHOP SECTION - The shop section to which the employee is assigned.
4. WORK CENTER - The work center to which the employee is assigned.
5. START DATE ORD - The ordinal start date of the reporting period.
6. NAME - The employee's name.
7. MIL/CIV - The type employee, M if military, C if civilian.
8. ASG LABOR CODE - The employee's assigned labor code.
9. ASI - The employee's Additional Skill Identifier.
10. DATE ASSIGNED - The date the employee was assigned to the work center.
11. RANK/GRADE - The employee's rank or grade.
12. MOS/SERIES - The civilian job series code or the military MOS to include skill level.
13. CMDTY CD - The Commodity Code to which the employee is assigned.
14. DATE REASSIGNED - The date the employee was reassigned from the work center.

SAMS-I Personnel Manhour Exception Worksheet, PCN AHN-041, Part 11- Employee Indirect Labor and NonproductiveManhours Expended (example) - continued.

FIGURE 2-23 (Cont).

15. MANHOURS ASSIGNED - The number of manhours currently assigned to the employee in the Personnel File.
16. DIRECT LABOR - The number of direct labor manhours currently expended by the employee in the Personnel File.
17. DIRECT LABOR OVERTIME - The number of direct labor overtime manhours currently expended by the employee in the Personnel File.
18. INDIRECT LABOR - Listing of indirect labor categories to which manhours are expended.
19. MANHOURS EXPENDED - Space provided to update the employee's manhours expended in the indirect and nonproductive labor categories.
20. NONPRODUCTIVE - Listing of nonproductive categories to which manhours are expended.
21. WEEKLY TOTAL HOURS - Space provided to enter the total number of hours listed on the report for each work day.

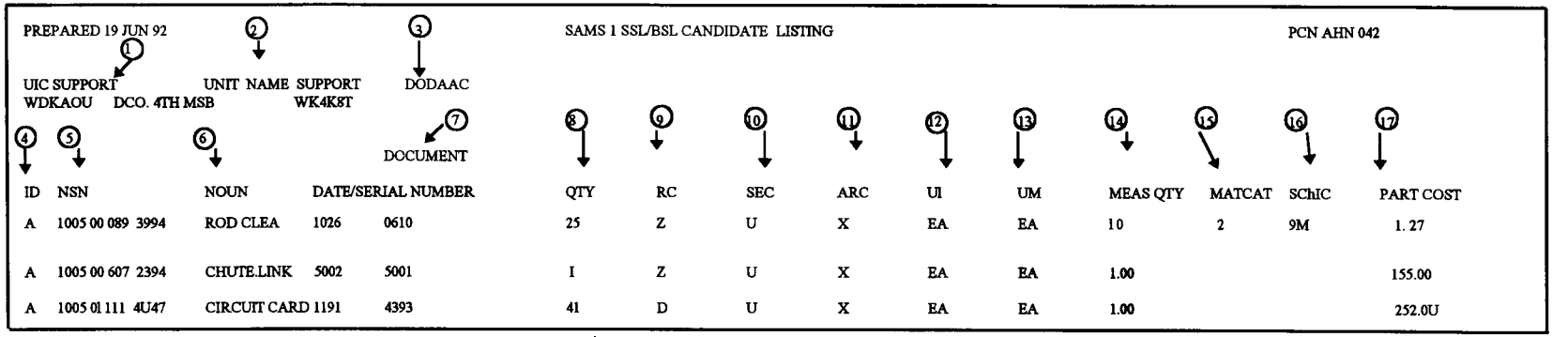
SAMS- I Personnel Manhour Exception Worksheet, PCN AHN-04 1, PART 11 - Employee Indirect Labor and Nonproductive Manhours Expended (example) - continued

FIGURE 2-24. **SSL/BSL Candidate Listing**

a. This report is generated in the reports activity (section 11).

b. This report provides a list of system generated parts requirements.

c. This report contains parts that become candidates for the Shop Stock or Bench Stock listing after registered in Parts Maintenance and are not already on the SSL or BSL.



PREPARED 19 JUN 92 (2) (3) SAMS 1 SSL/BSL CANDIDATE LISTING PCN AHN 042

(1) UIC SUPPORT WDKAOU DCO. 4TH MSB UNIT NAME SUPPORT WK4K8T DODAAC

(4) (5) (6) (7) DOCUMENT (8) (9) (10) (11) (12) (13) (14) (15) (16) (17)

ID	NSN	NOUN	DATE/SERIAL NUMBER		QTY	RC	SEC	ARC	UI	UM	MEAS QTY	MATCAT	SCHIC	PART COST
A	1005 00 089 3994	ROD CLEA	1026	0610	25	Z	U	X	EA	EA	10	2	9M	1. 27
A	1005 00 607 2394	CHUTE.LINK	5002	5001	I	Z	U	X	EA	EA	1.00			155.00
A	1005 01 111 4U47	CIRCUIT CARD	1191	4393	41	D	U	X	EA	EA	1.00			252.0U

1. UIC SUPPORT - Unit Identification Code of the supporting maintenance activity.

2. UNIT NAME SUPPORT - Name of the supporting maintenance activity in the clear.

3. DODAAC - The Department of Defense Activity Address Code of the support unit.

SSL/BSL Candidate Listing, PCN AHN-042 (example).

FIGURE 2-24 (Cont).

4. ID - The Identifying Number Code which identifies the type of number in the NSN field; i.e. A = National Stock Number.
5. NSN - The National Stock Number of the part.
6. NOUN - The name of the part.
7 DOCUMENT DATE/SERIAL NUMBER - The date and serial number of the document number from the Document Register File.
8. QTY - The quantity that has been requisitioned.
9. RC - Recoverability code for the level authorized to dispose of the item.
10. SEC - Security classification code of item.
11. ARC - Accounting requirement Code to indicate if the item is expendable, nonexpendable, or durable.
12. UI - Unit Of Issue.
13. UN - Unit of Measure.
14. MEAS QTY - The number of units measured in one unit of issue.
15. MATCAT - Material Category Code.
16. SCMC - Supply Class of Materiel Code.
17. PART COST - The cost of the item.

SSL/BSL Candidate Listing, PCN AHN-042 (example) - continued.

CHAPTER 3

STAFF- DMMC

3-1. Staff supervision and the planning for maintenance are conducted at the support battalion and materiel management center within a division. Nondivisional units also have comparable staff centers. They constantly review maintenance and supply operations and advise commanders, shop officers, and unit maintenance officers on the management of the maintenance function.

3-2. Although the scope of the battalion and DMMC staffs are different, they both use SAMS-2. Therefore, both are addressed in this chapter.

3-3. As a staff officer, you solve problems by studying an operation and determining if something is outside the acceptable range of performance. You collect needed information for analysis and provide the best options to the commanders you support. As in the SAMS- 1 system, SAMS-2 can physically bring to a standstill your ability to respond to the commander's needs. You could spend your entire day reading reports that have raw data only to find yourself computing the critical information you need to identify problems. Effectively used, SAMS-2 can work for you--making you more efficient in the use of your time and timely in advising your commander.

3-4. Before you go any further, ensure you understand your commander's intent on how he wants maintenance managed within his command. The manner you choose to collect and analyze data in the process of generating critical information must be synchronized with the commander's concept.

3-5. The figures are arranged in the order the authors would prefer if they were assigned to the staff. You study your operation and use any SAMS-2 report in whatever order you think is best for you. Don't forget to pass on your new knowledge to your subordinates and fellow staff officers.

I

FIGURE 3-1.

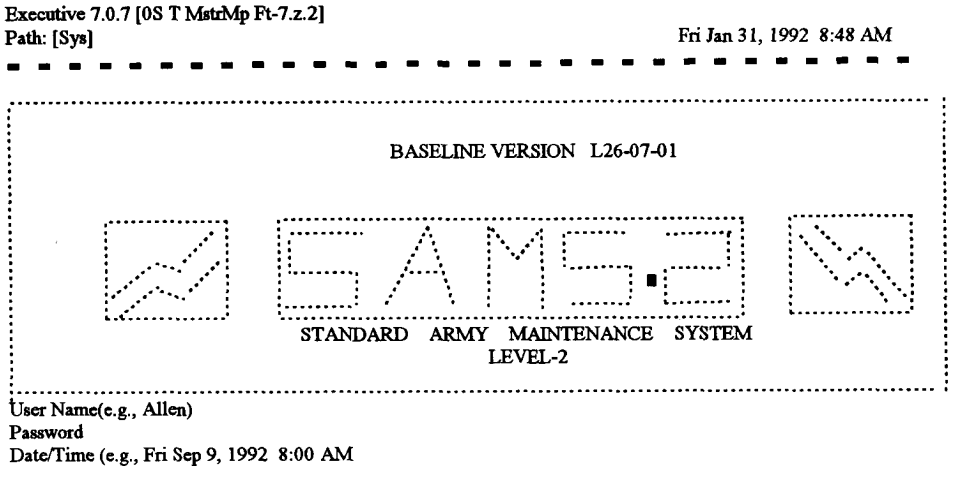
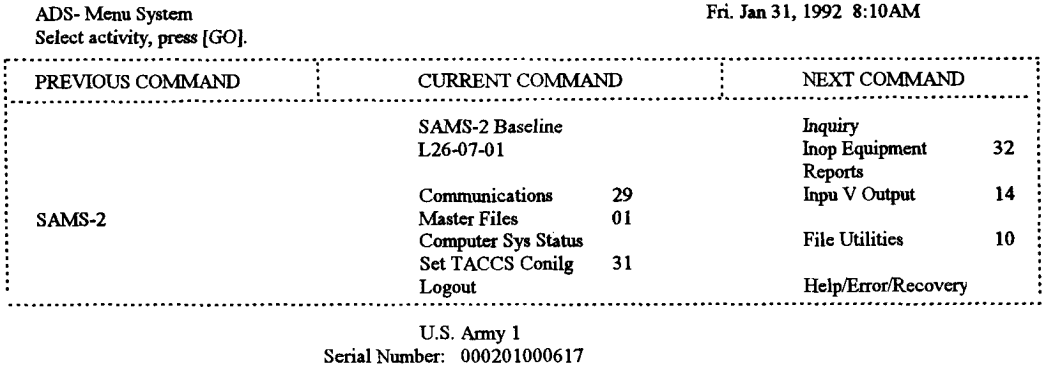


FIGURE 3-2



SECTION 1. SUSTAINING OPERATIONAL READINESS- UNIT LEVEL

3-7. The sustaining of operational readiness is the primary function of maintenance operations. The war fighter depends on the ability of the maintenance system to keep him moving, shooting, and communicating. The maneuver unit commander tells you the condition of his equipment by submitting a DA Form 2406, Materiel Condition Status Report (MCSR). The submission of the MCSR should set off a series of analyses at the support battalion and MMC levels.

3-8. The daily review of a brigade's or division's operational readiness (OR) focuses on the OR of the critical systems the division or brigade needs to perform its mission. Call them intensively managed items, pacing items, mission-essential items, or maintenance significant items. These items are found in the AHO001 report. The DMMC will normally determine which systems are above, below, or approaching going below the acceptable standard.

3-9. You can use several different codes to structure your list of critical end items or systems. SAMS-2 allows you to use line item number (LIN), equipment category code (ECC), commodity code (CMDTY), end item code (EIC), and federal supply class (FSC). Substitute as you see fit.

3-10. At this point, you have answered the first question in managing the operational readiness of the division. What reportable or maintenance significant items need management attention to ensure the maintenance and supply systems are doing everything possible to sustain the division OR?

3-11. To focus on specific unit level problems, use the information in figures 3-3 through 3-7.

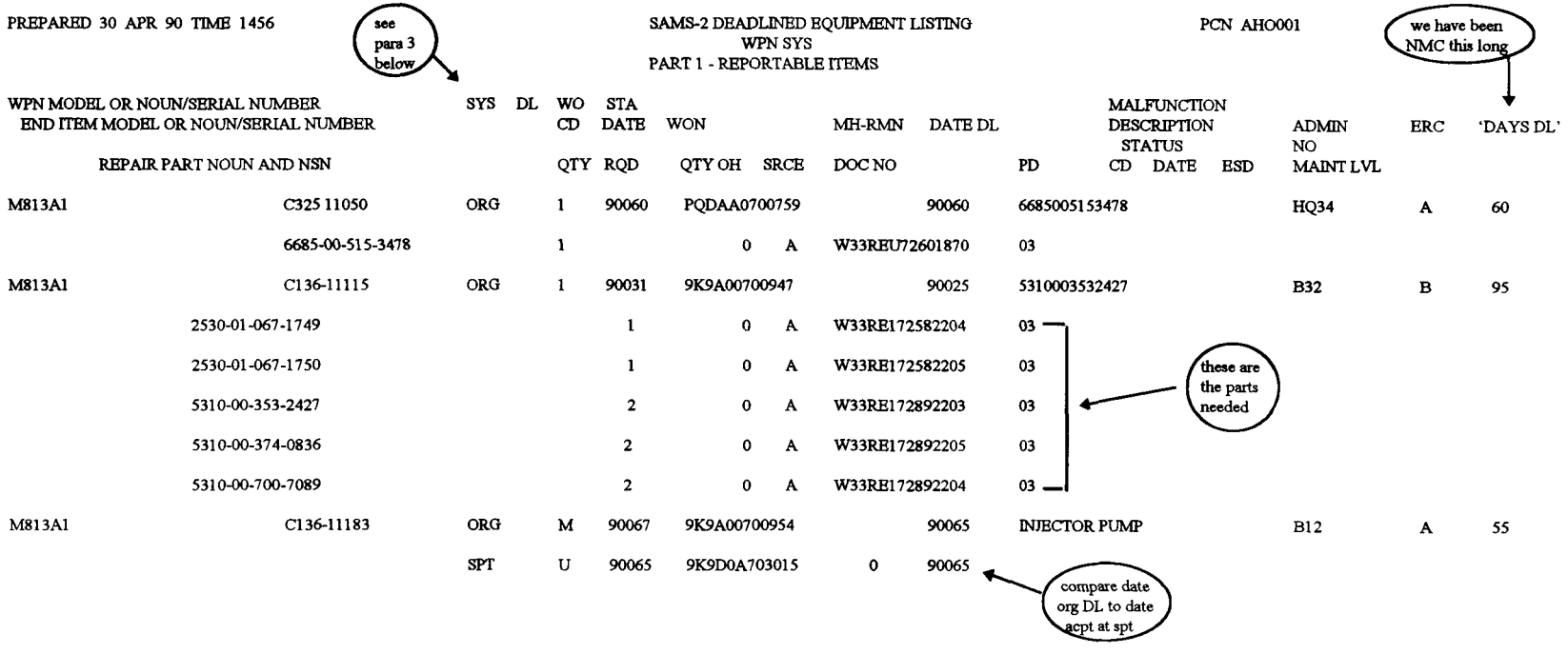
FIGURE 3-3. **Non-Mission Capable Equipment**

1. Questions:

   a. What reportable and maintenance significant items are NMC in the brigade or division?
   b. How long have the systems been deadlined?
   c. What parts are needed?
   d. How long did it take to get the items to support maintenance from date deadlined?

2. How to get the information: From SAMS-2 BASELINE. Press ⇨⇩⇩⇨⇨. Press GO. You will be required to enter parameters for the Inoperative Equipment Report. The first entry is the UIC. If you want all UICs listed press RETURN. Next you will be requested to enter the EICs. Press GO if you want all EICs. If you want associated parts listed, enter Y and press GO. Next enter an X in the block which indicates how you want the records sorted. Enter Y for print negative report and press GO, GO.

FIGURE 3-3 (Cont).



3. The sort sequence divides Part I into two groups. The first group contains all the records with SYS DL (system deadline) code of N for (NO) which prints as blank. These records are sorted by equipment NSN. The second group contains all records with SYS DL code of Y (Yes). These records are sorted by Weapon System End Item Code. The reason the Weapons System End Item Code is used is to identify reportable system end items versus reportable individual items (e.g., M151 with radio versus M151).

4. Part II of this report contains those items the commander has designated maintenance significant or intensively managed items. This part of the report is not shown. It is printed in the same format, shows the same type of information, but only addresses maintenance significant items.

5. Because this report lists all deadlined items in the division, it is a long one. You only want items from a specific ECC or commodity from the maintenance significant list. Figure 3-4 shows you how to do this.

FIGURE 3-4. **Specific Item/Weapon System Review**

1. To narrow the list of items you want to review (i.e., a specific ECC), we must draw data from two files. To do this, we link files. The instructions below guide you through the process of linking the EMF MASTER FILE(a 151) and the inop equipment (aho01i0) file.

2. From the SAMS-2 BASELINE, Press ⇨⇨⇩⇩ GO. The Inquiry Definition Screen appears. Type vitual file name INOPANDECC. Press RETURN, Press, F4, and RETURN. Type data elements 1 through 6 pressing RETURN after each data element entry. Suffix will default to .Isam. Press FINISH. See example on the left side of this page of vitual file and physical files that can be linked.

this tells what physical files have to create

these are virtual files

FILES	IEF	IEFP	IDTB	CWO	WWO	ECC	UIC	EMF
Physical	AHO	AOO	AOO	AOO	AOO	AOO	AOO	AO
Virtual	1	2	3	4	5	3	4	5
	1	1	1	1	1	1	1	1
COMPLWO				X		X	X	
EMF						X		X
INOP	X					X		
INOPCORR	X	X						
INOPARTS	X	X				X		
INOPWO	X	X						
WO					X	X	X	

Figure 5.2.1. SAMS-2 Virtual Files

```
ADS-5.1 (CTOS 9/10                    Sat Dec 3,1988  8:49 AM

Please press the desired function key
-------------------------------------------------Inquiry File Definition

Virtual File Name          Inopandecc          [Lock]
        Root File
        [Path]             [Iamd]   <SAMS-2>
        [Prefix]
File Name                  [Suffix]   .Isam
Joined Files-------------------------------------------------------------
        [Path]             [Ismd]   <SAMS-2>
        [Prefix]
001 File Name              aho 151             [Suffix]
        [Path]
        [Prefix]
        Root Data Name     epnsn
        Join Key Name      partnofld
        File Name                              [Suffix]
        Root Data Name
                                        Join Key Name
-------------------------------------------------------------------------
```

NOTE: Because what you have just entered into the computer stays there until some one modifies it, this screen will appear complete the next time you type INOPANDECC and press RETURN. If you want to change the screen, press F7 and go to section 5 in the SAMS-2 User Manual.

FIGURE 3-4 (Cont).

3. You are back at SAMS-2 BASELINE. Press ⇨⇨ GO. The ad hoc inquiry screen will appear. Type SI/WSR and press RETURN. Type INOPANDECC and press RETURN. Wait several minutes while the file structure is verified, press RETURN and type" specific item/weapon system review," and press RETURN. Type data element 1 through 17 pressing RETURN once after each entry. Continue entering the remaining data elements under "Data Elements to Report" in the same order as elements 14 through 17 were entered. Press GO. Press F10 twice to print the report.

4. This report answers the following questions:

a. Within a specific ECC what systems are deadlined?

b. Are the systems at unit, DS/GS maintenance level?

c. What specific items are deadlined?

ADS - 5.1 (CTOS 9/10) SAT. DEC. 3, 1988 9:37 AM

Enter field(s) to report Press [HELP] for list Press [FINISH] when done.

Ad hoc Inquiry—

Inquiry SI/WSR	File Name [Form Name] [Title]	inopandecc		specific Item/weapon system review	
eqnnsn	A/D	Brk?	Cnt?	I	Printers
orgwon	A	N		I	User Specific Device

Data Elements to select	M/R	From Range	To Range	A/0
	R	HO	HZ	A
ecc				

Data Elements to Report	Length	Column Heading	Tot?
orgwon	12	orgwon	N
bmprne	21	bmprne	N
storg	05	StOrg	N
acspt	5	AcSpt	N

11/07/90 14:24 AD HOC REPORT PAGE 1

ECC	EONSN	ORGWON	EONOUN	BMPRNO	WSDL	STORG	ACSPT
HA	2310011112275	ACFAA0000397	M996	A8	Y	M	00000
HA	2310011112275	ACHAA0000570	M996	HO72	Y	B	00000
HD	2320011232665	AEIOT00000223	M1009	H-7	Y	1	90053
HD	2320011232665	AB1AA0000247	M1009	HO40	Y	M	00001
HD	2320011232665	AE11AA0000249	M1009	HO66	Y	1	90046

FIGURE 3-5. **Frustrated Work Request**

1. Questions:

a. What deadlined equipment is workable?

b. What deadlined equipment has been in a specific status more than a specified number of days?

2. From SAMS-2 BASELINE. Press ⇨⇨ GO. The data base inquiry screen will appear. Type FWR, press RETURN, type AHO011, press RETURN. It will take the system several minutes to verify the file structure. Press RETURN after the file structure is verified. Type in Frustrated Work Request for title and press RETURN. Fill in the remaining data elements as noted in the example below. Press RETURN after each entry and press RETURN and GO when finished. To print report press F10 twice. To return to main menu press FINISH twice.

ADS - 5.1 (COTS 9/10) Wed Jan 29,1992 10:31 AM
Enter field(s) to report Press [HELP] for list. Press [FINISH] when done.
Ad hoc Inquiry

Inquiry FWR	File Name:	AHO0 11			
	[Form Name]:				
	[Title]:	Frustrated Work Request			
Data Elements to Sort	A/D	Brake?	CT?	I	Printers
ORGAN	A	N	N	I >	[SPELL]
				I	[Vl]
				I	User Specified Device

Data Elements to Select	M/R	From Range	To Range	A/O
STORAGE	R	B	C	A
DOTAGE	R	9003	92035	A

Data Elements to Report	Length	Column Heading	Tot?
ORGAN	12	Or Won	N
DATING	5	DDT Nip	N
EGNOUN	21	Eq Noun	N
BMPRNO	6	Bumper No	N
WSDL	5	WSD1	N
STORAGE	5	PST Or	N
DOTAGE	5	Dt Org	N
ACSPT	5	Ac Spt	N

FIGURE 3-5 (Cont).

3. You can print the report in age or system sequence by changing the data element labeled "data elements to sort" to DTINP or EQNSN, respectively.
4. You can also select a different status by changing the "from range" and "to range" for data elements to select.

08/31/90 09:53 AD HOC REPORT PAGE 1

more than 3 days in this status

ORGWON	DTINP	EQNOUN	BMPRNO	WSDL	STORG	DTORG ACSPT
AB8AA0000087	90039	MEP026A	HAENl7	N	B	90039 00000
ACDAA0000326	90024	M998	B10	N	B	90040 00000
ACHAA0000569	90037	MEP016A	HAE6	N	B	90037 00000
ACHAA0000570	90037	M996	HA-72	Y	B	90037 00000
ACKT00000385	90039	M813A1	D217	N	B	90059 00000
ACKT000000395	90008	M936WW	HSC452	N	B	90059 00000
ACKT00000407	90051	M4K	HSC243	N	B	90051 00000
ACKT00000429	90054	Ml008	HSC531	N	B	90059 00000
ACLB00000071	90046	ANVSC2	B122	Y	B	90054 00000
ACQAA0020260	90037	M998	D303	N	B	90044 00000
ACQAA0020261	90037	M998	HQ80	N	B	90044 89355
ACQAA0020262	90037	M998	D403	N	B	90044 00000
ARMT00000040	90023	M998	HQ 6	N	B	90046 00000
DQWAA0000008	90039	M35A2WW	PSC5	N	B	90039 00000
DRST00000166	90036	M998	HQ-5	N	B	90051 00000
DRST00000181	90054	M35A2	HQ-71	N	B	90054 00000
FBBT000000251	90044	MEP015A	E5	N	B	90058 00000
FBBT000000252	90038	M998	E9	N	B	90058 00000
FBBT00000255	90051	Ml008	HQ2	N	B	90059 00000
FBBT00000261	90051	M35A2	H2Q73	N	B	90051 00000
FBBT00000262	90036	M35A2WW	HQ72	N	B	90036 00000
FJ5C00000040	90032	M1009	C30	Y	B	90032 00000
GLEAA00000045	90051	M35A2C	HQ91	N	B	90051 00000

why the difference in dates?

all In shop at same unit? why so-o lo-o-ong

FIGURE 3-5 (Continued next page).

FIGURE 3-5 (Cont).

5. We chose to look at workable unit level reportable and maintenance significant items that have been NMCM in B or C status for more than 3 days. Using the procedures in figure 3-5, you can determine which items have been delayed. At this point, the DMMC manager should call someone in the brigade or battalion staff to find out why these items are being delayed in NMCM status. The response will fall into one of two categories: capacity or capability.

a. Does the unit need additional capacity in the form of manpower augmentation or evacuation of the item to back up support?

b. Does the unit need capability in the form of technical assistance to supplement skill shortages or experience heavy lift transportation support to evacuate items to a repair site, tools, or TMDE?

FIGURE 3-6. Reportable Items (NMC) - Parts Deadlined:

1. Non workable items are normally in awaiting inspection (A) or awaiting parts status (1 or K). Other possible statuses are listed in the SAMS-2 User Manual, appendix B. or DA Pam 738-750, Table B-25. The awaiting inspection status is normally resolved as a capability or capacity problem as in figure 3-5, paragraph 5. The awaiting parts status requires a different analysis. The ad hoc report in this figure will provide you with the list of parts required for each reportable and maintenance significant deadlined item.

2. From SAMS-2 BASELINE. Press ⇨⇨⇩ GO. The wide Form Editor screen appears. Type INOPPARTS4, press RETURN twice. To establish this report in your SAMS-2 system, reproduce the form generation utility screen by entering the data elements as the cursor moves across the screen. Press RETURN after entering each data element. After entering the last entry on the last line, press FINISH to display function keys. Press F3 to test the form. The system generates the form and prints it with Xs in the Detail Fields. If the form is satisfactory, press F9, to generate, press GO. Press F2 to print the form. Press FINISH. You are at SAMS-2 BASELINE. At this point, you have designed the INOPPARTS4 report and saved it in SAMS-2 memory. To produce this report, start at SAMS-2 BASELINE and press ⇨⇨ GO. The ad hoc inquiry screen will appear. Type RIPD and press RETURN. Enter INOPPARTS for file name and press RETURN. You will have to wait a few minutes while the file structures are verified.

Wide Forms Editor Report			Inopparts4	
Field Name or Caption	Row	Col	Field/Cap	Size
page date	2	11	F	8
ad hoc report-inopparts #4	2	60	C	24
page no	2	117	F	6
part nsn	3	60	C	8
Equipment noun	5	17	C	14
Dt Inop	5	49	C	7
DT Org	5	77	C	6
Acpt Spt	5	84	C	8
StSpt	5	106	C	7
DtSpt	5	112	C	5
Part Noun	6	118	C	9
Equipment NSN	6	44	C	13
Document No	6	56	C	11
Date	6	71	C	3
ESD	6	81	C	3
PARTNSN	8	1	F	15
BMPRNO	8	39	F	6
DTINP	88	46	F	5
WONORG	8	57	F	12
ACSPT	8	874	F	5
StSpt	8	93	F	12
DTSPT	8	118	F	2
EQNSN	9	15	F	12
ROD	9	44	F	5
ODOCUNO	9	56	F	5
DATE	9	75	F	2
ESD	10	81	F	5

FIGURE 3-6 (Cont).

After the verification of file structures enter INOPPARTS4 for form name and press RETURN. At Data Elements to Sort enter PARTNSN, press RETURN and enter A and N. and press RETURN twice. Press GO, GO. Use the example below to guide you through this process. Press F10 twice to print report. (NOTE: Processing time is quite long, so be prepared to wait on the machine.)

3. Once identified by NSN, there can only be two questions: Where is the part in the division? Or, what is the document number? Coordination with the DMMC supply managers will be required to locate the part in the division for cross-leveling. To load the SARSS/DS4 supply status information into SAMS-2, see the special instructions in chapter 9 of the SAMS-2 User Manual.

4. The following questions need to be answered:

a. Is the parts request valid?
b. Can the AMC LAO help?
c. If there is a long lead time, do you recommend:
(I) Controlled substitution?
(2) Cannibalizations
(3) Next higher assembly?
(4) Fabrication?
(5) Local purchase?
(6) Float?

ADS - 5.1 (CTOS 9/10) **Fri Jan 10,1992 9:40 AM**

Please press desired function key. **Ad hoc Inquiry—**

Inquiry RIPD	**File Name**	**INOPPARTS**
	[Form Name]	**INOPPARTS4**
	[Title]	

Data Elements to Sort	**A/D**	**Brk?**	**Cnt?**	**I**	**Printers**
PARTNSN	**A**	**N**	**N**	**I >**	**[SPL]**
				I	**[VID]**
				User Specified Device	

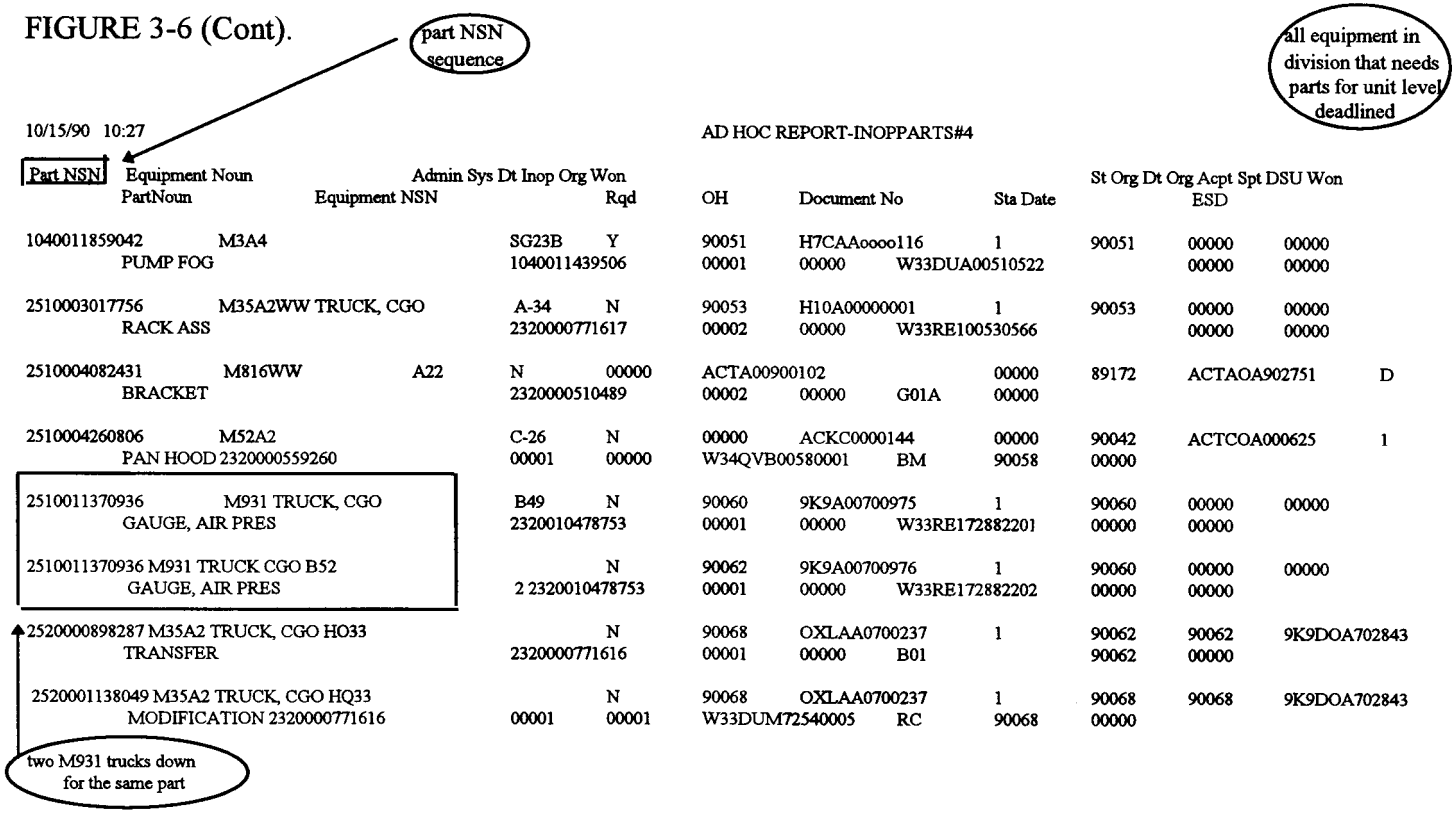
Data Elements to Select	**WR**	**From Range**	**To Range**	**A/O**

Data Elements to Report	**Length**	**Column Heading**	**Tot?**

5. If there is no parts request or an invalid parts request, technical assistance may be required. But first, tell the unit the results of your analysis.

6. As a maintenance manager, any problems with the ASL need to be discussed with your supply management counterpart. This concludes the discussion at unit level.

FIGURE 3-6 (Cont).



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Part NSN / PartNoun	Equipment Noun / Equipment NSN	Admin	Sys	Dt Inop	Org	Won	Rqd	OH	Document No	Sta	Date	St	Org	Dt Org Acpt	Spt	DSU	Won	ESD	StSpt	DtSpt	Evac	Won
1040011859042	M3A4			SG23B			Y	90051	H7CAAoooo116		1	90051		00000		00000						
PUMP FOG				1040011439506				00001	00000	W33DUA00510522				00000		00000						
2510003017756	M35A2WW TRUCK, CGO			A-34			N	90053	H10A00000001		1	90053		00000		00000						
RACK ASS				2320000771617				00002	00000	W33RE100530566				00000		00000						
2510004082431	M816WW	A22		N		00000		ACTA00900102			00000	89172		ACTAOA902751			D		89240			
BRACKET				2320000510489				00002	00000	G01A	00000											
2510004260806	M52A2			C-26			N	00000	ACKC0000144		00000	90042		ACTCOA000625			1		90052			
PAN HOOD 2320000559260				00001		00000		W34QVB00580001		BM	90058	00000										
2510011370936	M931 TRUCK, CGO			B49			N	90060	9K9A00700975		1	90060		00000		00000						
GAUGE, AIR PRES				2320010478753				00001	00000	W33RE172882201		00000		00000								
2510011370936	M931 TRUCK CGO B52						N	90062	9K9A00700976		1	90060		00000		00000						
GAUGE, AIR PRES				2 2320010478753				00001	00000	W33RE172882202		00000		00000								
2520000898287	M35A2 TRUCK, CGO HO33						N	90068	OXLAA0700237		1	90062		90062		9K9DOA702843			R		90120	
TRANSFER				2320000771616				00001	00000	B01		90062		00000								
2520001138049	M35A2 TRUCK, CGO HQ33						N	90068	OXLAA0700237		1	90068		90068		9K9DOA702843			R		90100	
MODIFICATION 2320000771616				00001		00001		W33DUM72540005		RC	90068	00000										

7. You can further isolate problems by listing those weapon systems by number of days NMC. There may be value in not looking at all systems but just those that are over 3, 5, 10, 20, 30, and so forth, days NMC. Figure 3-7 shows you how.

FIGURE 3-7. **Equipment Deadline by Unit or System Exceeding Age Criterion**

1. Questions:
a. What equipment by unit or system has been deadlined over a specific number of days; i.e., 20 days?
b. What is the status of each work order?

2. From SAMS-2 BASELINE. Press ⇨⇨ GO. The ad hoc inquiry screen will appear. Type EDUSEAC, press RETURN, type AH0011, press RETURN. Enter date elements as noted in ad hoc inquiry screen example. Following the last entry press RETURN, GO, and F10 twice to print report.

```
ADS - 5.1 (CTOS 9/10)                                   Thu Jan 30,1992 2:57 PM
Enter field(s) to report. Press [HELP] for list    Press [FINISH] when done.
-------------------------------------------------------- Ad hoc Inquiry—
Inquiry EDUSEAC          File Name AHO011
                         [Form Name]
                         [Title]          Equip DL by Unit/Sys Exceed Age Criteria

Data Elements to Sort    A/D   Brk?  Cnt?  I     Printers
EQNSN   t                      A     N     N     I>      [SPL]
ORGWON A                       N     N     I>    [VID]
                                                         User Specified Device

Data Elements to Select  M/R         From Range      To Range  A/O
DATE INOPORD             R           90030           90120     A

Data Elements to Report  Length      Column Heading          Tot?
DTINP                    5           Dt Inp                  N
EQNOUN                   21          EqNoun                  N
ORGWON                   12          OrgWon                  N
BMPRNO                   6           BmprNo                  N
WSDL                     4           WSD1                    N
STORG                    5           StOrg                   N
ACSPT                    5           AcSpt                   N
STSPT                    5           StSpt                   N
```

FIGURE 3-7 (Cont).

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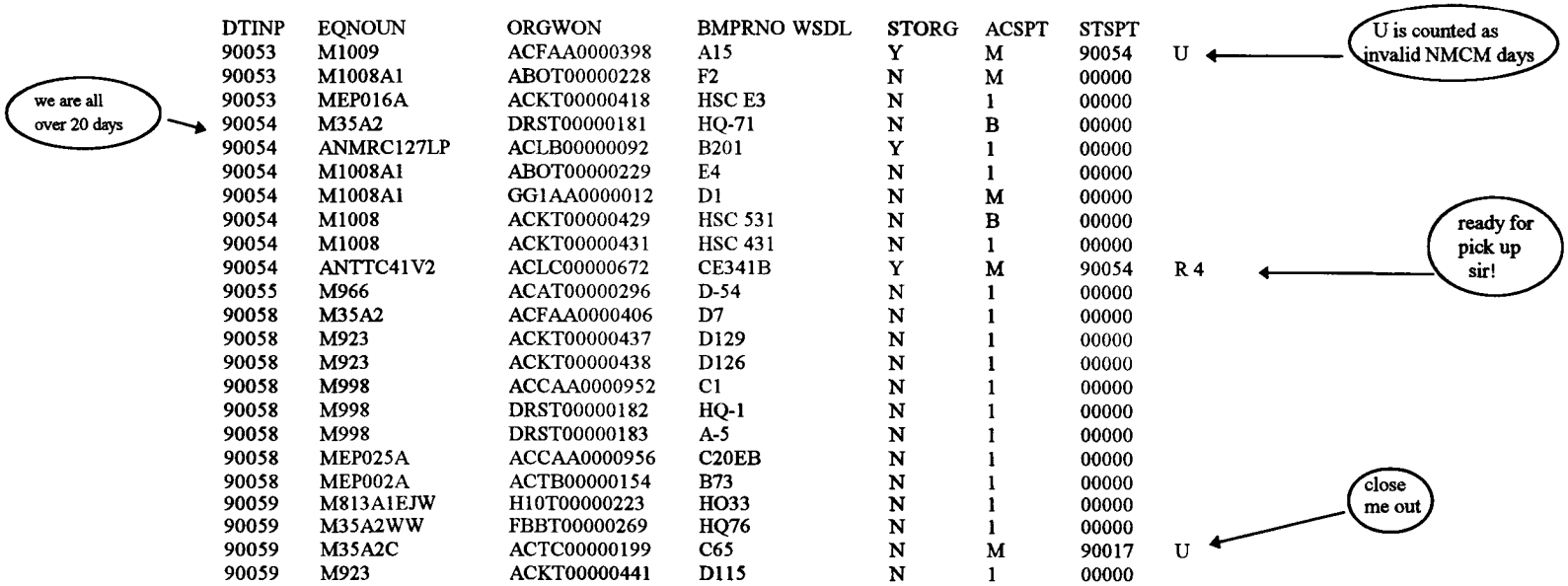
DTINP	EQNOUN	ORGWON	BMPRNO WSDL	STORG	ACSPT	STSPT	
90053	M1009	ACFAA0000398	A15	Y	M	90054	U
90053	M1008A1	ABOT00000228	F2	N	M	00000	
90053	MEP016A	ACKT00000418	HSC E3	N	1	00000	
90054	M35A2	DRST00000181	HQ-71	N	B	00000	
90054	ANMRC127LP	ACLB00000092	B201	Y	1	00000	
90054	M1008A1	ABOT00000229	E4	N	1	00000	
90054	M1008A1	GG1AA0000012	D1	N	M	00000	
90054	M1008	ACKT00000429	HSC 531	N	B	00000	
90054	M1008	ACKT00000431	HSC 431	N	1	00000	
90054	ANTTC41V2	ACLC00000672	CE341B	Y	M	90054	R 4
90055	M966	ACAT00000296	D-54	N	1	00000	
90058	M35A2	ACFAA0000406	D7	N	1	00000	
90058	M923	ACKT00000437	D129	N	1	00000	
90058	M923	ACKT00000438	D126	N	1	00000	
90058	M998	ACCAA0000952	C1	N	1	00000	
90058	M998	DRST00000182	HQ-1	N	1	00000	
90058	M998	DRST00000183	A-5	N	1	00000	
90058	MEP025A	ACCAA0000956	C20EB	N	1	00000	
90058	MEP002A	ACTB00000154	B73	N	1	00000	
90059	M813A1EJW	H10T00000223	HO33	N	1	00000	
90059	M35A2WW	FBBT00000269	HQ76	N	1	00000	
90059	M35A2C	ACTC00000199	C65	N	M	90017	U
90059	M923	ACKT00000441	D115	N	1	00000	



SECTION II. SUSTAINING OPERATIONAL READINESS - DS SUPPORT LEVEL

3-12. The identification of NMC reportable and maintenance significant items evacuated to DS are identified on the AHO001 report in figure 3-3 with a SPT work order number below the ORGWON. Use the report in figure 3-4 if you like. Our first task is to determine what is NMC at DS, how long it has been NMC, its work order status and, should it be awaiting parts, the NSN, and document numbers. To focus on the repair parts needed, use the ad hoc report in figure 3-6. This report tells you in NSN sequence all the parts required to repair deadlined reportable items in the division. It gives the manager an order of magnitude of parts requirements across the division, With this information, the manager can coordinate with the AMC LAO or NICP to expedite wholesale level response. The DMMC maintenance manager coordinates with the division or DISCOM staff to ensure he has the current guidance. Other decisions relating to control substitution, fabrication, local purchase, cannibalization, cross-leveling of parts, and use of operational readiness float can be supported by a review of the status and ESD on the report in figure 3-6.

3-13. NMCM time due to delays includes awaiting inspection (A or E), shop (C), disposition (H), evacuation (0), tools (P), pickup (R), and awaiting ECOD or report of survey action (Q). These delays normally come about from problems due to shortfall in capacity or capability. Ask the same questions we asked at unit level maintenance. However, the order of magnitude is greater and solutions to problems may require coordination with the division staff, corps support command, or installation maintenance manager. Review the status column in report AHO001 in figure 3-3.

3-14. To complete the review of reportable and maintenance significant items, the DMMC manager must monitor evacuated work orders. Figure 3-8 shows you how to use an ad hoc report to list the evacuated work orders and where they are.

FIGURE 3-8. **Evacuated Work Orders**

1. Questions:

a. Which work orders have been evacuated out of the division?
b. Where did the evacuated equipment go?

c. When was the equipment evacuated?

d. To what unit does the equipment belong?

2. From SAMS-2 BASELINE. Press wn GO. The ad hoc inquiry screen will appear. Type TEST3-8, press RETURN, type AHO01I, press RETURN. The machine will verify file structure, which will delay you a few minutes. Following file structure verification, press RETURN twice, and enter data elements as noted in the example. Press RETURN, and GO, after the last entry. To print the report press F10 twice.

ADS - 5.1 (CTOS 9/10)

Enter field(s) to report   Press [HELP] for list   Press [FINISH] when done.

.... Ad hoc Inquiry

Inquiry TEST34   File Name: AHO011
[Form Name]:
[Title]: Evacuated Work Orders

Data Elements to Sort	A/D	Brk?	Cnt?	I	Printers
WON	A	N	N	I > I[VID] User Specified Device	[SPL]

Data Elements to Select	M/R	From Range	To Range	A/O
STSPT	R	M	M	A

Data Elements to Report	Length	Column Heading	Tot?
STSPT	12	SWtoSnpt	N
EQNOUN	21	Eq Noun	N
BMPRNO	6	Bmpr No	N
WONORG	12	Won Org	N
WONEVACI	12	WonEvacl	N

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WON	STSPT	DTSPT	EONOUN	BMPRNO	EOSN	WONORG	WONEVAC1
ACLAAA000034	M	90030	MAY BE SUBSYSTEM	BS381	H00002	ACLB000007	OU4105001299
ACLAAA000038	M	90018	AN/GRC-193A		645/613/303/305	ACLA000758	OU4105001186
ACLAAA000118	M	90037	ANTSC76	AS151	01	ACLA000793	OU4105001345
ACLAAA000279	M	90053	RT-524/VRC	AS331	84412-18	ACLA000867	OU410S001525
ACLAAA000280	M	90053	MAY BE SUBSYSTEM	AS141	06083	ACLA000847	OU4105001528
ACLAAA000281	M	90053	MAY BE SIJBSYSTEM	AS141	06238	ACLA000856	OU4105001527
ACLAAA000282	M	99053	MAY BE SUBSYSTEM	AS141	109912	ACLA000849	OU410S001531
ACLAAA000283	M	90053	MAY BE SUBSYSTEM	AS141	06340	ACLA000855	OU4105001529
ACTAOA000080	M	90054	SECM1975		098824	ACTA00000182	WACTD0000839
ACTBOA000533	M	90058	40MM M203		127849	ACOA0093	WOU4100R0074
ACTBOA000592	M	90053	ANPRC77		448440A	ACDTOOB50603	ACTOOA000448
ACTBOA902305	M	89306	M998	D305	025977	HSAAA0900137	WOU4100A1052
ACTCOA000206	M	90019	MAY BE SUBSYSTEM	D85	067059	AB3T00000146	ACIMOAOE2034
ACTDOA000812	M	90058	MAY BE SUBSYSTEM		0000000	ACKT000414	OU41AOOU3753

SECTION 111. WEEKLY WORK ORDER REGISTER REVIEW

3-15. The first section of this chapter addressed sustaining operational readiness. It discussed how the DMMC or battalion staff can help maneuver and direct support level maintenance units identify problems on a daily basis. This section shows you how to use the Weekly Work Order Register file to review the work order production and backlog to find problems at the direct support level.

3-16. To quickly bring the staff officer's focus to a specific problem area, use the AHO025 Maintenance Production/Backlog Report in figure 3-9. This report will show the number of end items and components by commodity for all the direct support level backlog in the division. Receipts and completions are given and can be used to plot and develop trend analysis data. Because SAMS does not do trend analysis, this is a manual process. Due to their combat significance, we chose to look at combat vehicles. By looking through the unit level reports attached to the division level report, you will find where the majority of the combat vehicle work is located. Using the AHO009 report in figure 3-10, Selected Work Order Status Listing, you can find the work orders by ECC within commodity code C that reflect the backlog identified on the AHO025 report. The work orders in shop can only be further reviewed by contacting the shop office or battalion staff. The work orders awaiting parts can be further analyzed using the AHO012 report in figure 3-11. This report lists all work orders within the commodity code or ECC selected. We chose ECC GL, personnel carriers.

3-17. If you want to know if a particular part is needed for multiple work orders, use the AHO013 report in figure 3-12, Multiple Parts Request Exception Listing. This report lists the NSNs needed by work order and gives you the work order numbers. The order of magnitude of the requirement for an NSN can be seen for the entire division. The detailed information in the AHO013 report can be used when coordinating with AMC LAOS, NICP, or determining if local purchase, fabrication, controlled substitution, or cannibalization is needed. The report in figure 3-6 lists all repair parts needed by NSN for a specific end item or system. The order of magnitude is the same as in the AHO013 report; however, the parts needed are listed by end item or system instead of work order.

FIGURE 3-9. **Production - Work flow**

1. Questions:
    a. What is the total backlog in the main support battalion by commodity?
    b. What was the production for the reporting period?
    c. What commodity areas are having problems?

2. From SAMS-2 BASELINE. Press ⇨⇩⇩⇨⇩⇩⇩⇩⇨⇩⇩⇩⇩, GO. The maintenance production backlog screen will appear. Type in last year's ordinal date. Press RETURN. Type in today's ordinal date. Press RETURN. Type Y. press GO, GO. The report will be printed.

3. The information in the report on the following page will give indications of problems within commodities that you will want to analyze in further detail. Using the reports in figures 3-10 and 3-11, you can continue your investigation by looking at specific ECCs within commodities. Refer to figure 3-14 to isolate performance.

FIGURE 3-9 (Continued next page).

FIGURE 3-9 (Cont).

PREPAZRED 28 SEP 90 TIME 1532

SAMS-2 MAINTENANCE PRODUCTION/BACKLOG REPORT

PCN AHO-025

REPORT START DATE 90030
REPORT END DATE 90120

BY QUANTITY REPAIRED

jobs await parts will need this many man hours when parts arrive

UIC:W9BAA UNIT: 779 SPT BN

WKLY/MONTHLY PROD SUMMARY*

ENDING BLOCKLOG STATUS

	(QNTY END BEG	ITEMS/COMP) REC	CMPL	EVAC	(QUANTITY END END	ITEMS & COMPONENTS) IPD 1-8	OVER 30	WAIT INSP	WAIT SP	IN SHP	WAIT PTS	DEF	AVAL MHRS	MHRS NMCM	MHRS NMCS	NMCS DEFER	DAYS NMCM	BKLG NMCS	DEF	ITEMS OPEN ECAC	MHRS OPEN EVAC
A. ACFT																					
(1) E1																					
(2) COMP																					
B. AUTO																					
(1) E1	523	352			171	149	89	39	10	20	46	36		96	00.0	52.5				17	20.5
(2) COMP	1266	1191			73	27	29	30	1		14	30		10.0	5.3	15.1				19	9.6
C. CBT VE																					
(1) E1	126	117			9	5	2	3	2	1	2	1		49.0	24.0	22.0				3	1.5
(COMP	264	212			52	12	25	7		6				136.5	29.0	9.0					
D. CONST																					
(1) E1)	5	1			4	3	1	2	0					3.6	2.0			1	2.0		
(2) COMP																					
E. E&C																					
(1) E1	130	104			26	25	14	4	0	1	19	26		2.0	3.0	0.0				17	8.0
(2) COMP	306	415			91	85	25	27	1			57		14.5	0.0	26.0				57	26.6
F. M&S																					
(1) E1	104	139			45	13	27	1		7	9	28		1052.0	190.0	34.0				27	12.0
(2) COMP	145	130			15	10	11			2	13			44.0	206.0						
I. ARM																					
(1) E1	249	206			43	31	1	33			10			44.1	20.0						
(2) COMP	66	36			30	13		20			2			25.0	24.0						
K. GEN EQPT																					
(1) E1	53	44			9	9	4	3			4	2		2.0	5.0	1.5				2	1.5
(2) COMP	196	173			23	15	9	11			7	5		0.0	0.5	2.5				4	2.0
L. COM GPS																					
(1) E1	6	6																			
(2) COMP	1160	15			1153	1150			1150		3					2.1					
M. AUDIO VIS																					
(1) E1																					
(2) COMP																					
UIC TOTAL																					
BEG REC			CMPL	EVAC	END	IPD	OVER	WAIT	WAIT	IN	WAIT	DEF	MHRS	NMCM	NMCS	DEFER	NMCM	NMCS	DEF	OPEN	OPEN
							1-8	30	INSP	SHP	SHOP	PTS								EVAC	EVAC
DO		4007	3141	0	1746	1547	230	100	1146	37	129	220		487.6	702.0	173.2				147	83.7

ARE WE IN TROUBLE

jobs awaiting inspect-await shop and in shop will require this many man hours

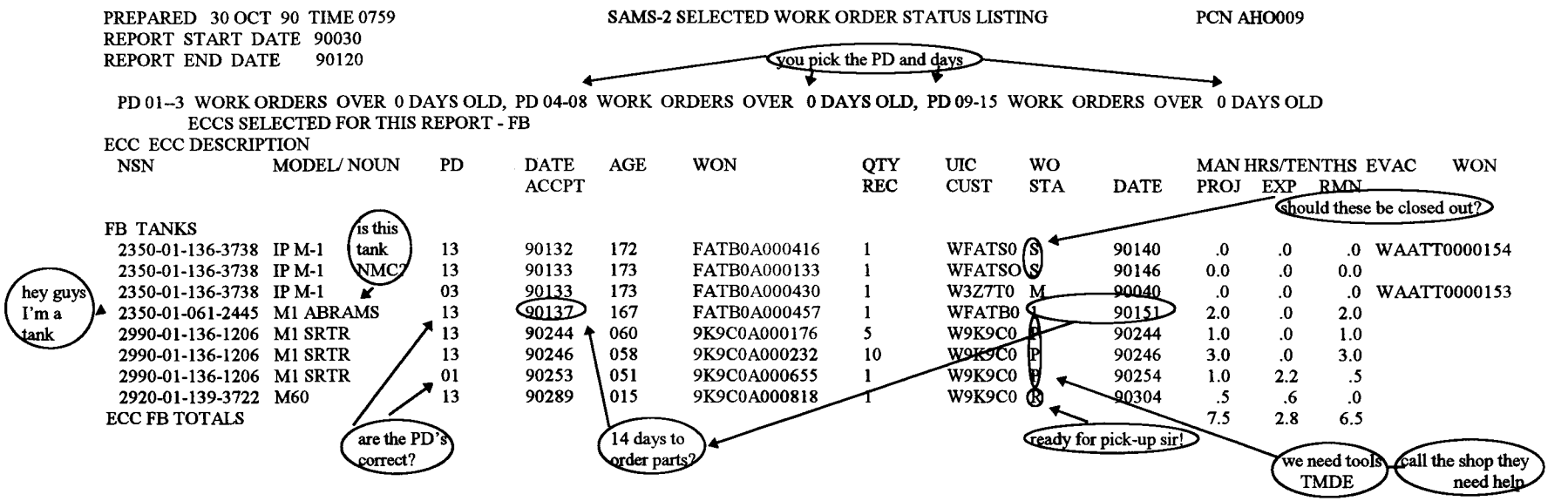
TOTAL BACKLOG: 1746
AWAITING PICKUP: 16

PRODUCTION INDEX: .66
ADJUSTED BLOCKLOG: .42

FIGURE 3-10. **Selected Work Orders Exceeding Priority Time Parameter**

1. Questions:
a. What are the items on work order within a commodity by ECC?
b. What is the status of each work order?
c. Which work orders appear in trouble and need manager assistance?

2. From SAMS-2 BASELINE. Press ⇨⇩⇩⇨⇩⇩⇨GO. Type in the ordinal date for one year ago. Press RETURN. Type in today's ordinal date press GO,GO. Type in the Equipment Category Code (ECC) you desire (for example, FB). Press GO, GO. The report will print. NOTE: ECC table B-18 DA PAM 738-750.



3. Detailed analysis of this report will provide specific leads that must be individually researched by coordinating with the support battalion staff or shop office responsible for the work order.
4. Detailed supply analysis can be done using the AHO012 report in figure 3-11.

FIGURE 3-11. **Parts Status for Specific End Items - Work Request**

1. Questions:

a. What parts are on order for all ECC GL end items on work order?

b. What is the status of each request?

c. Are there indicators that require management follow-up?

2. From SAMS-2 BASELINE. Press ⇨⇩⇩⇨⇩⇩⇩⇨GO, GO, GO. Type in an ECC (for example; FB), press GO, GO. The report will print.

PREPARED 1 DEC 89 TIME 0839 SAMS-2 PARTS DETAIL EXCEPTION LISTING PCN AHO012

PD 0143 WORK ORDERS OVER 0 DAYS OLD, PD 04-08 WORK ORDERS OVER 0 DAYS OLD, PD 09-15 WORK ORDERS OVER 0 DAYS OLD

ECC's SELECTED FOR THIS REPORT, G L

COMMODITY CODE L COMMODITY CODE DESCRIPTION COMMODITY GP

ECC ECC DESCRIPTION

WON PD MODEL OR NOUN	BUMPER NO	OTY clcr	NSN	UIC CUST	TYPE MNT	UTIL CD	PROJ CD	DATE ACPT	WO STA	WO AGE DATE	
							QUANTITIES			STATUS	
DENOTES RECEIPT	DOC NO	PART NSN	PART NOUN				RQD	ISS	DI	SRCE CD	DATE ESD
GL PERS CARR											
9K9COZ723865 03	M113A2	B2	1 2540gKF113-4180 WQZ7B0					F	0	87260 1	8726597
	W33DUF72810020	2540-014544261	BURNER A	1	0	0		A	CQ 86013		
	W33DUF72720007	2540-014544261	BURNER A	0	0	1		A			
	W33UF72860011	2540-014544261	BURNER A	1	0	0		A	CQ 8601		
9K9COA724468 13 C/PERSONNE		A8 1 26404a-9304938 WQXLA				F	A			87278 1	87279 79
	W33DUF72790012	2590-00441-8678	THERMOSTAT	1	0	1		A	BB	87281	
9K9DOA703499 03	M113A2	HQ41 1 235041468-4077	W7NATO	1	0					87292 C	76293 65
	W33VUR72920012	2520-00466-4240	TX100-1	1	0	1		A			
FATB0A703046 03	M113A2	D 11 1 235041 {)68-4077	WTGADO	1	0					87180 1	
	?	2815-00-124-5390	ENGINE	1	0	0		D			
	W33DUG71950002	4730-00480-7042	PIPE	1	1	0			RC	87208	
	W33DUG71950004	4730-00-223-7074	PIPE	1	0	1		A			
	W33DUG71950003	6685-00414-5271	TRANSMITTER	1	0	1		A			
	FATBOA770234 03	H 71 1 235041485-3792	WTGAE0	1	0					87146	1 87147 211
	W33DUG71460004	2590-01-140-4601	EC	1	0	1		A			

cancelled!!! go to *DA PAM* 710-2-1 App C

this part comes from ASL

I'm reparable!

did you ask for an engine

we received the part on this day

FIGURE 3-12. Multiple Parts Request All Work Orders

1. Questions:

a. What parts in NSN sequence are needed for all work orders?

b. What is the status of each request?

2. From SAMS-2 BASELINE. Press ⇨⇩⇩⇨⇩ until the HIGHLIGHTER is over WORK ORDER PARTS. Press =>⇩. When the highlighter is over MULTIPLE PARTS press GO three times. The report will print

3. The shop stock manager needs to be called to find out if any action has been taken to get the required parts

PREPARED 27 AUG 90 TIME 1332 SAMS-2 MULTIPLE PARTS REQUESTS EXCEPTION LISTING PCN AHO013

PD 0143 PARTS WITH 30 OR MORE REQUESTS. PD 04-08 PARTS WITH 0 OR MORE REQUESTS, PD 09-15 PARTS WITH 0 OR MORE REQUESTS

make sure you get supply status from DS-4/SARSS

PART NSN	PART NOUN	SRCE	DOC NO	QTY PD	DI	CD	STATUS DATE ESD	WON	DATE ACPT	WO STA	UIC CUST	MODEL OR NOUN
10054945-9756	PINTLE, M	A	W34QVB93250029	03	0	PR	90004	ACTCOA902352	89283	D	WDRSA0	M122 TRIPD
		A	W34QVB00050002	13	4	BB	90033	ACTCOA902352	89283	D	WDRSA0	M122 TRIPD
		A	W34QVB00240002	13	4	BB	90033	ACTCOA902352	89283	D	WDRSA0	M122 TRIPD
1080-00-107-9206	SCREEN, R	A	W80RMW92980012	13	0	BX	90016	DHUCOA901173	89296	K	WDHUB0	AN/VRC-46
1080-00-108-1646	CASE, CAM	A	W80RMW00540001	13	10	BM	90059	DHUCOA001392	90051	K	WDHUC0	CCO SUPPLY
1080-00-559-1551	PIN, CAMO	A	W80RMW00600007	13	100			DHUCOA001392	90051	K	WDHUC0	CCO SUPPLY
		A	W80RMW00600008	13	100			DHUC0A001392	90051	K	WDHUC0	CCO SUPPLY
		A	W80RMW00600009	13	100			DHUCOA001392	90051	K	WDHUC0	CCO SUPPLY
1080-00-571-5015	LANYARD,	A	W80RMW00580014	13	10	BM	90058	DHUCOA001392	90051	K	WDHUC0	CCO SUPPLY
1080-01422-8633	STRAP,TI	A	W80RMW00540006	13	1	BM	90059	DHUCOA001392	90051	K	WDHUC0	CCO SUPPLY
108041447-9312	1 SOR MTR NT	A	W80RMW00580013	13	0	CQ	90058	DHUCOA001392	90051	K	WDHUC0	CCO SUPPLY
1080-01451-1433	CAMOUFLA	J		13	0			DHUCOA001392	90051	K	WDHUC0	CCO SUPPLY
1080-01462-2184	SHUTTLE,	J		13				DHUCOA001392	90051	K	WDHUC0	CCO SUPPLY
1090-014704995	WIRING A	H	W34QVD00530737	06	1			DLJAOA070149	90011	K	WDLJA0	TEST ST FIRE CON SUB
1090-01471-0621	SPINDLE,	A	W34QVD00450713	13	1	BB	90047 90072	DLJAOA070360	90044	K	WABOF0	SLIDE ASSEMBLY
1090-0t-239-2358	CONTROL	H	W34QVD00260751	06	0	BF	9003t	DLJAOA070149	90011	K	WDLJA0	TEST ST FIRE CON SUB
12t0-0t-221-0353	REACTOR	A	W340WH00366001	13	10	BM	90037	DGYAAA070230	90022	C	WGG1T0	DAY SENSOR/AH-64
1265-00-997-4571	CABLE ASSV	A	W34VCB00370004	13	1	BB	90038 90063	ACTT2A903238	89348	1	WH10A0	RANGE CNTL EXT
1270-00 573-4730	MODULE A	A	W340VD00530715	06	6	BM	90053	DLJAOA070149	90011	K	WDLJA0	TEST ST FIRE CON SUB
1270-00-578-0731	CIRCUIT	H	W34QVD00530736	06	1			DlJAOA070149	90011	K	WDLJA0	TEST ST FIRE CON SUB
1270-00-578-0757	CIRCUIT	H	W34QVD00530735	06	1			DLJAOA070149	90011	K	WDLJA0	TEST ST FIRE CON SUB
1270-01422-5324	CIRCUIT	H	W340VD00530738	06	2			DlJAOA070149	90011	K	WDLJA0	TEST ST FIRE CON SUB

if blank-parts drawn from shop stock

SECTION IV. REQUIREMENTS VERSUS CAPACITY

3-18. Workable work orders are everything except work orders in A and K or 1 status. They represent a requirement that must be met with on-hand capacity, augmentation from outside the division, or require evacuation of a portion of the requirement to division backup support. To compare the requirement to capacity, you start by estimating the requirement. Figure 3-9 shows you how to use the AHO025 report to visualize the gross requirements. Review of the AHO025 report will focus the manager on a commodity and the unit where there is a large requirement. He can further isolate within a commodity by using the AHO009 report. Figure 3-10 tells you how to get the report. Figure 3-13 is an example of an AHO006 report identifying a potential problem.

3-19. Estimating capacity to perform the work must use current man-hours available or an estimate of capacity to perform based on past performance. Until SAMS-2 includes complete man-hour accounting and task analysis, the manager can only estimate capacity based on past performance or an estimate given by the shop officers. The manpower utilization report, AHO044, will provide past performance data such as man-hours available and utilized by shop section. Reports AHO005, 006, 007, and 008 provide meantime to repair data. Figure 3-14 shows report AHO006. Whichever is chosen, the result must answer the following questions:

a. Which units have requirements above capacity?

b. Is there excess capacity in the division or any battalion?

c. Where is the excess capacity?

The answers provide the basis for determining if cross-leveling within or between units is possible or practical, considering METT-T analysis and the commander's concept of priority of support.

FIGURE 3-13. **Man-hour Requirements by ECC**

1. Questions:
a. What is the total man-hour requirement for an ECC?
b. Are there work orders with excessive man-hour requirements?

2. From the SAMS-2 baseline. Press ⇨⇩⇩⇨⇩⇩⇨ . Press GO. Type in the ordinal date for one year ago. Press RETURN. Type in today's ordinal date. Press GO, GO. Type in the ECC codes you desire pressing RETURN after each entry and GO twice after the last ECC entry. The report will print.

UNCLASSIFIED

PREPARED 30 OCT 90 TIME 0759 — SAMS-2 SELECTED WORK ORDER STATUS LISTING — PCN AHO009
REPORT START DATE 90303
REPORT END DATE 91303

PD 0143 WORK ORDERS OVER 30 DAYS OLD , PD 04-08 WORK ORDERS OVER 60 DAYS OLD, PD 09-15 WORK ORDERS OVER 90 DAYS OLD
ECCS SELECTED FOR THIS REPORT • CB

ECC ECC DESCRIPTION NSN	MODEL OR NOUN	PD DATE	AGE WON	ACPT	QTY REC	UIC CUST	WO STA DATE		MAN-HOURS IN TENTHS PROJ	EXP	RMN	EVAC WON
CB TOW												
1440-01-198-5891	SIGHT,OPTICAL GUIDE	03 90032	272	ACTBOA000416	1	WACTB0	M	91040	.5	.0	.5	WAATT0000154
1440-00-456-1731	MOUNT,TRIPOD GUIDED M	03 90033	271	ACTT2A000133	1	WACTRX	K	91046	20.0	.0	20.0	
1440-01-198-5891	SIGHT,OPTICAL GUIDE	03 90033	271	ACTBOA000430	1	WACTB0	M	91040	.5	.0	.5	WAATT0000153
1440-00-196-0038	TUBE,GUIDED MISSILE	03 90037	267	ACTBOA000457	1	WACTB0	1	91037	.5	.0	.5	
1440-01-115-3405	M83	03 90044	260	ACTAOA000176	1	WACTA0	A	91044	1.0	.0	1.0	
1440-00-196-0038	M22	03 90046	258	ACTAOA000232	1	WG6VD0	A	91046	803.0	.0	803.0	
1440-01-115-3405	TRAVERSING UNIT GUI	03 90053	251	ACTBOA000655	1	WACTB0	B	91054	.5	.0	.5	
ECC CB TOTALS									826.0	,0	826.0	

UNCLASSIFIED

END PAGE 1

3. The 803 man-hours for only one item work ordered for repair is an obvious case of excessive man-hours needing further investigation. As you become more familiar with the shops and their capability and capacity, you become more sensitive to what the data means and identify more difficult problems.

FIGURE 3-14. **Work flow and Performance**

1. This report tells you how long work orders of a specific ECC were in a specific status and the average days it took to complete one work order.

2. From the SAMS-2 BASELINE. Press ⇨ ⇩⇨ ⇩ to Maint Performance ⇨⇩ to turnaround time ECC, press GO. Type in the ordinal date for one year ago (for example, 90030). Press RETURN. Type in today's ordinal date (for example, 90120). Press GO, GO. Type in the selected ECC (for example, CB). Press GO, GO. The report will print.

PREPARED 29 OCT 90 TIME 1551 SAMS-2 SUPPORT MAINTENANCE TURNAROUND TIME (DAYS) ECC PCN AHO006

REPORT START DATE 90030 ECCS SELECTED FOR THIS REPORT = CB

REPORT END DATE 90120

	***** TOTAL *****		AVG DAYS TO COMPL BY TYPE OF MAINTENANCE							*** AVG DAYS TO COMPL BY WO STATUS				
ECC ECC DESCRIPTION	PD	• NO WO • COMPL	AVG • DAYS	REPAIR AND RETURN TO • USER STOCK PROD ORF •				MWO	DX	OTHER •	IN TRANS	WAIT SHOP	IN SHOP	WAIT PARTS	WAIT PK-UP
CB TOW	01-03	85	5				5000	0	0	8	0	1	3	63	1
	04-08	0	0				0000	0	0	0	0	0	0	0	0
	09-15	4	1				1000	0	0	0	0	0	0	0	0

3. The information in this report also gives indications of problems within commodities and performance of the shops. Reference figure 3-9.

SECTION V. FOCUSING ON A UNIT

3-20. The staff officer has the capability to focus on a particular unit by using reports from both the Inoperative Equipment file and the Weekly Work Order Register file.

3-21. The AHO026 and AHO003 provide the capability to examine all deadlined reportable and maintenance significant items for a battalion or company. Essentially, these reports are the reverse side of the unit's DA Form 2406, Materiel Condition Status Report. These reports also allow you to select deadlined equipment older than XX days. Figure 3-15 shows you how to print the AHO026 battalion level report and provides instructions for the AHO003 report. The ULLS output to SAMS-2 provides a daily update of the data base to generate these reports. Therefore, while SAMS-2 does not have an MCSR front side, it does produce a daily reverse side.

3-22. On a weekly basis, the staff officer can review all open work orders for a unit by producing the AHO032 report. This report prints all data from the data base for each open work order for a specific unit's equipment. Figure 3-16 shows you how to print this report.

3-23. The staff officer makes the same detailed review of these reports as was done for sustaining operational readiness. Knowing that the guidance in this chapter is based on the author's perception of how readiness should be managed, each staff officer must organize and select those SAMS-2 reports that best support how he manages maintenance to sustain operational readiness.

FIGURE 3-15. **Selected Unit Deadlined Equipment Exceeding Time Parameters**

1. From SAMS-2 BASELINE. Run the AHO026 report. Press ⇨⇩⇩⇨⇨⇩⇩⇩ GO. Type in the age in days that you are searching. Type in a battalion UIC (for example, W9KAAA). Press GO, GO. Enter "Y" to include associated parts records. Press RETURN. Enter "X" for sort by age, and a Y to print negative report if no records are found. Press GO twice. The report will now print.
2. For the AHO003 report, press ⇨⇩⇩⇨⇨⇩⇩, GO. Type in a unit UIC (for example, W9K9D0). Press GO, GO. Type Y. Press GO, GO.
The report will print.

PREPARED 08 NOV 90 TIME 1018 SAMS-2 EQUIPMENT DEADLINED OVER 015 DAYS BY BATTALION PCN AHO026

PART I - REPORTABLE ITEMS

UIC SELECTED FOR THIS REPORT = WACQAA WACKB0 WDLJT0 WDHUC0

UIC BATTALION UNIT NAME BATTALION

WACOAA 2ND 502ND INF

WPN SYS MODEL OR NOUN/SERIAL NUMBER SYS DL

END ITEM MODEL OR NOUN	BUMPER NO	SERIAL NUMBER	WO CD	STA DATE	WON	MH-RMN	DATE DL STATUS	MALFUNCTION DESCRIPTION	ERC	•DAYS DL
DOC NO	REPAIR PART NOUN AND NSN		QTY ROD	QTY OH	SRCE	PD	CD	DATE	ESD REMARKS	
1430-01-143-9408	D201	203067 ORG	00000	ACQD00000041				00000	NOT ON EMF	325
		SPT U	89355	ACTBOA902860			.0	89353		
• MISSING ORG DATA	RECORD NOT CLOSED BY ORG									
585541-143-3183	D104	002046 ORG	00000	ACQD00055				00000	NOT ON EMF	269
		SPT U	90051	ACTBOA000545			.0	90044		
• MISSING ORG DATA	RECORD NOT CLOSED BY ORG									
5855-01-143-3183	D105	002103 ORG	00000	ACQD00056				00000	NOT ON EMF	269
		SPT U	90051	ACTBOA000543			.0	90044		
• MISSING ORG DATA	RECORD NOT CLOSED BY ORG									

FIGURE 3-16. **Work Order Status and Parts by Unit**

From SAMS-2 BASELINE. Press ⇨⇩⇩⇨⇩⇩⇩⇨⇩⇩ GO, wait, GO. Type the selected unit's UIC (for example, W9K9A0). Press GO, GO, GO, GO. Type C, press GO. Type Y. press GO, GO. The report will print.

PREPARED 08 NOV 90 TIME 0851 SAMS-2 WORK ORDER STATUS AND PARTS LISTING PCN AHO032

PD 01-03 WORK ORDERS OVER 10 DAYS OLD, PD 0448 WORK ORDERS OVER 30 DAYS OLD, PD FI-15 WORK ORDERS OVER 60 DAYS

UIC-S SELECTED FOR THIS REPORT • W9AOAA W9AKB0 W9HUC0 W9LJT0

WO STATUSES SELECTED FOR THIS REPORT = A B C K 1

ECC'S SELECTED FOR THIS REPORT = HT HJ FB HH BN GA OB DA

WON	PD	ECC	MODEL OR NOUN REC ** QUANTITIES ** STATUS	QTY CUST	NSN MNT	UIC CD	TYPE CD	UTIL ACPT	PROJ STA	DATE	WO	WO AG	EVAC WON
*** DENOTES RECEIPT			DOC NO	PART NSN		PART NOUN	RQD	ISS	DI	SRCE	CD DATE		
	9K9WA902901		13 HH	DOOR VEHICULAR		1	251040-737-3294		W9AKB0	1	0	89355 1 90002	323
	W33DUM00030007		562040-621-2561	GLASS, PLATE		1	0		1	A BB 90017		90008	
	9K9WA000391		03 QB	MEP002A		1	611540-465-1044		W9AKB0	1	0	90030 1 90051	283
	W33DUM00320002		292041438-5252	REGULAT, RECT		1	1		0	A RC 90043			
	W33DUM00510006		292041438-5252	REGULAT, RECT		1	0		1	A BB 90053			

CHAPTER 4

MEASURING PERFORMANCE TO STANDARDS

4-1. Maintenance operations are complex and highly technical and require effective and aggressive management for achieving maximum efficiency and effectiveness in resource utilization, maintaining productivity, and sustaining required equipment readiness at minimum cost. Successful commanders develop active maintenance management programs, achieving high degrees of maintenance effectiveness and operational efficiency. The commander's key role in these programs is to issue guidance for maintenance activities in his command. An important element of this guidance is the establishment of standards for the measurement of perforrmance. It is the establishment of standards that allow the commander to measure performance, develop problem indicators, and influence corrective action.

4-2. Commanders of unit, DS, and GS level maintenance organizations may measure the ultimate successful accomplishment of their missions based on the operational readiness of the equipment they support. As a measure of maintenance performance, however, the equipment readiness rate is only an indicator of the possible presence or absence of maintenance management problems. Indicators must be followed up to identify and resolve problems that inhibit maintenance operations from performing to standard.

4-3. Indicators must be sensitive to the performance measured. Any indicator will do if you do not know what specific function performed determines or influences the success of an operation. The indicators listed below are considered sensitive to DS and GS level maintenance.

a. Size and age of backlog.

b. Turnaround time.

(1) Maintenance delay time.

(a) Awaiting inspection time.

4.3 (Cont)

(b) Mean time to repair.
(c) Rejection rate.
(d) Percentage of backlog evacuated.
(e) Awaiting evacuation time.
(f) Awaiting shop time.
(g) Manpower utilization.
(2) Supply delay time (NMCS).
(a) Shop stock - percentage of zero balance.
(b) Processing time.
(c) Rejection rate.

4-4. Selection of the indicators must be based on our ability to collect data for comparison purposes. SAMS provides us with the capability to collect data but very little capability to provide ready-made comparisons of performance to standards. The chart at figure 4-1 shows you where and how to get the information from SAMS or what has to be done manually to develop comparisons. It is recognized that until all data collection is automated, significant manual effort maybe required. Nevertheless, maintenance managers and commanders should use performance measures to identifify problem areas.

4-5. Information results from the analysis of data produce critical information. Critical information is information that is analyzed and structured to make specific decisions. Displaying information on graphs allows you to visually compare performance to standards at any point in time or develop trend lines showing comparisons of performance to standards over extended time periods. Figures 4-2 through 4-6 show you suggested questions and related graphs that can help you develop critical information for making decisions. When making charts draw a line across the chart showing your standard. You can now compare your standard to performance. To make bar graphs using the Burroughs office automation software in your TACCS see figure 4-7.

FIGURE 4-1. **Performance Measures Available**

MEASURED INDICATOR	SAMS-1	SAMS-2
1. Backlog.		
a. Size.	Figure 2-1, Total of WO OH column, AHO022	Figure 3-9, in UIC TOTAL NOW, size of backlog number is labeled "END." AHO025
b. Age.	Figure 2-1, Total of Backlog age Columns, AH0022.	Figures 4-3 and 4-4 have the graphs Figure 4-5
2. Turnaround time	Not available in SAMS-1.	Figure 4-6
a. Maintenance delay time.		
(1) Awaiting inspection.	Figure 2-4, count the number of jobs remaining in A status XX days above your standard. Ad Hoc Report	Not available in SAMS-2
(2) Mean time to repair.	Not available in SAMS-1.	Report AHO007 in Figure 4-7.
(3) Rejection rate.	Not available in SAMS. Count the number of work orders that are rejected by final inspection. Compute for each shop.	Not available in SAMS-2
(4) Percent evacuated.	Figure 2-1, divide overall total of work orders evacuated by the number of total work orders on hand.	Figure 3-9, divide the UIC totals of "OPEN EVAC" by the "END" number. AH0025

FIGURE 4-1 (Cont).

MEASURED INDICATOR	SAMS-1	SAMS-2
(5) Awaiting evacuation.	Figure 2-4, count the number of jobs remaining in O status XX days above your standard. Ad Hoc Report	Not available in SAMS-2.
(6) Waiting shop.	Figure 2-4, count the number of jobs remaining in C status XX days above your standard. Ad Hoc Report	Figure 3-14, the WAIT SHOP column below AVERAGE DAYS TO COMPL BY WO STATUS has awaiting shop days by priority. AHO006
(7) Manpower utilization.	AR 750-1, appendix C, until SAMS personnel utilization is issued.	.AR 750-1, appendix C, until SAMS personnel utilization is issued.
b. Supply delay time.		
(1) NMCS.	Not available in SAMS-1.	Figure 3-14, the WAIT PARTS column below AVERAGE DAYS TO COMPL BY WO STATUS has NMCS days by priority. AH0006
(2) Shop stock zero balance.	Not available in SAMS-1. Divide the number of 0 balance lines in shop stock by the total lines.	Not available in SAMS-2.
(3) Request rejection rate.	Not available in SAMS-1. Number of rejections divided by total requests.	Not available in SAMS-2.
(4) Processing time.	Figure 2-7, subtract date work order accepted from date of supply request. Use statistical sampling to develop an average. This includes inspection and request processing time. AHO011	Figure 3-3, using the AHOOOl report, use same method as for SAMS-1. Date work order accepted is in DATE DL column on SPT work order number line. AH0001

FIGURE 4-2. **Workload/Backlog - Items**

1. Questions:
    a. What is the overall backlog of items?
    b. What is the backlog of items by commodity?
    c. What is the backlog of items by support unit?
    d. Is there an increasing or decreasing trend?
    e. Are support units' workloads within the established criteria/parameters? (Note: Items backlogged provide a more accurate picture of workload than work orders.)

2. How to get the information: Run the maintenance production/backlog report (AHO025) by quantity repaired. See figure 3-9. Using the information from this report, develop a graph and update it each month. Observe trends and performance over a period of time against established command criteria/parameters. We chose to use the division totals for this graph.
    - Using the AH0025 report, post the division end totals of items to a graph.
    - You can also make graphs for each commodity or for each support unit.
    - You can also add items over 30 days old.

3. This graph is for a 12-month period. If an unfavorable trend is present, further analyze to determine the cause. Suggested questions are:
    a. Have quantities of items received been increasing? Why?
    b. Have ending quantities been increasing? Why?
    c. Is work being accepted that should be done at unit level?
    d. Have equipment densities being supported changed?
    e. Are new equipment fieldings increasing the work requirements?

FIGURE 4-2 (CONT).

f. What is the mean time to repair for new items of equipment?

g. Is the problem in a particular commodity or support unit?

h. Is the mix of work orders changing between end items and components?

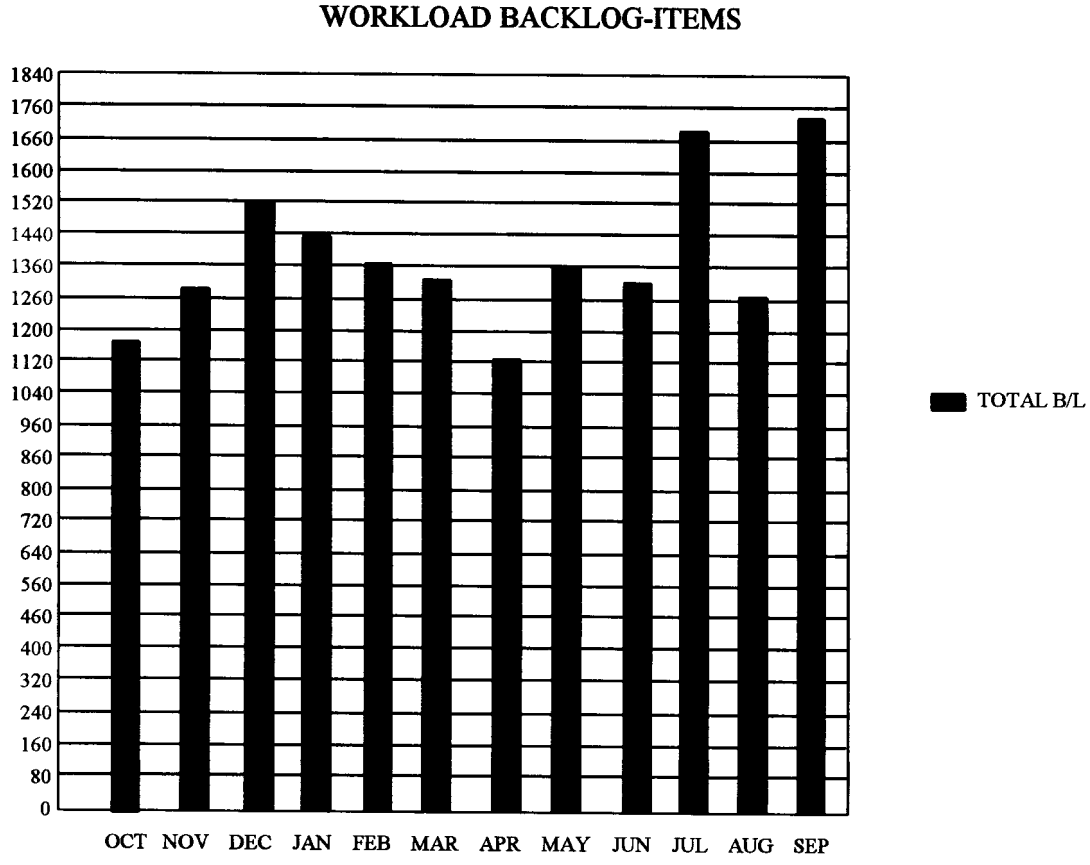


FIGURE 4-3. **Man-hours Backlogged**

1. Questions:
    a. What is the overall backlog in man-hours/man-days?
    b. What is the backlog of man-hours by commodity?
    c. What is the backlog of man-hours by support unit?
    d. Is there an increasing or decreasing trend?
    e. Are support unit man-hours within the established command criteria/parameters?
    f. How many days are required to accomplish the existing workload with the current direct labor available irrespective of repair parts availability?
    g. How much of the backlog is workable (NMCM)? How many days are required?
    h. Is the workable backlog increasing or decreasing? Why?
2. How to get the information: Run either the maintenance production/backlog report by work order count (AH0029) or by quantity repaired (AH0025). We chose to use the AH0025 report in figure 3-9.
    - Graph the overall man-hours backlogged by adding man-hours NMCM, NMCS, and deferred (DEFER) for division totals.
    - Graph the overall NMCM man-hours backlogged for division totals.
    - Similarly, make graphs for each commodity and for each support unit. (Note: If the magnitude of the workload is too large to chart all items, it is suggested that selected items be monitored in this manner. This will reduce the requirement for preparing graphs.)
3. This graph gives the most accurate measure of workloads. It allows the quantification of workloads for comparison with capacity. Unfavorable trends should be analyzed to determine the problems and causes. Sample questions are:
    a. Is the total number of man-hours increasing or decreasing? Why?
    b. Which items of equipment are causing an unfavorable trend?

FIGURE 4-3 (Cont).

c. Is work being accepted that should be done at unit level?
d. Have supported equipment densities changed?
e. Are new equipment fieldings increasing the work requirement?
f. Are required engineering changes to equipment causing the problem? Have EIRs and 2028's been submitted? Don't forget to follow-up!
g. What is the mean time to repair by categories of equipment and how has it changed over time?
h. Is the problem in a particular commodity or support unit?
i. Is the mix of work changing between end items and components?
j. Are problems in capacity causing the increase? Has capacity been exceeded?
k. Are there shortages in particular skills (MOS) affecting man-hours backlogged?
l. Is direct labor availability affecting man-hours backlogged; e.g., other military duties, etc.?
m. Do direct labor personnel require training?
n. Can the excess workload be redistributed to another activity with excess productive capacity?
o. Can personnel be borrowed or extenal support obtained to reduce the backlog?

FIGURE 4-3 (Continued next page).

FIGURE 4-3 (CONT).

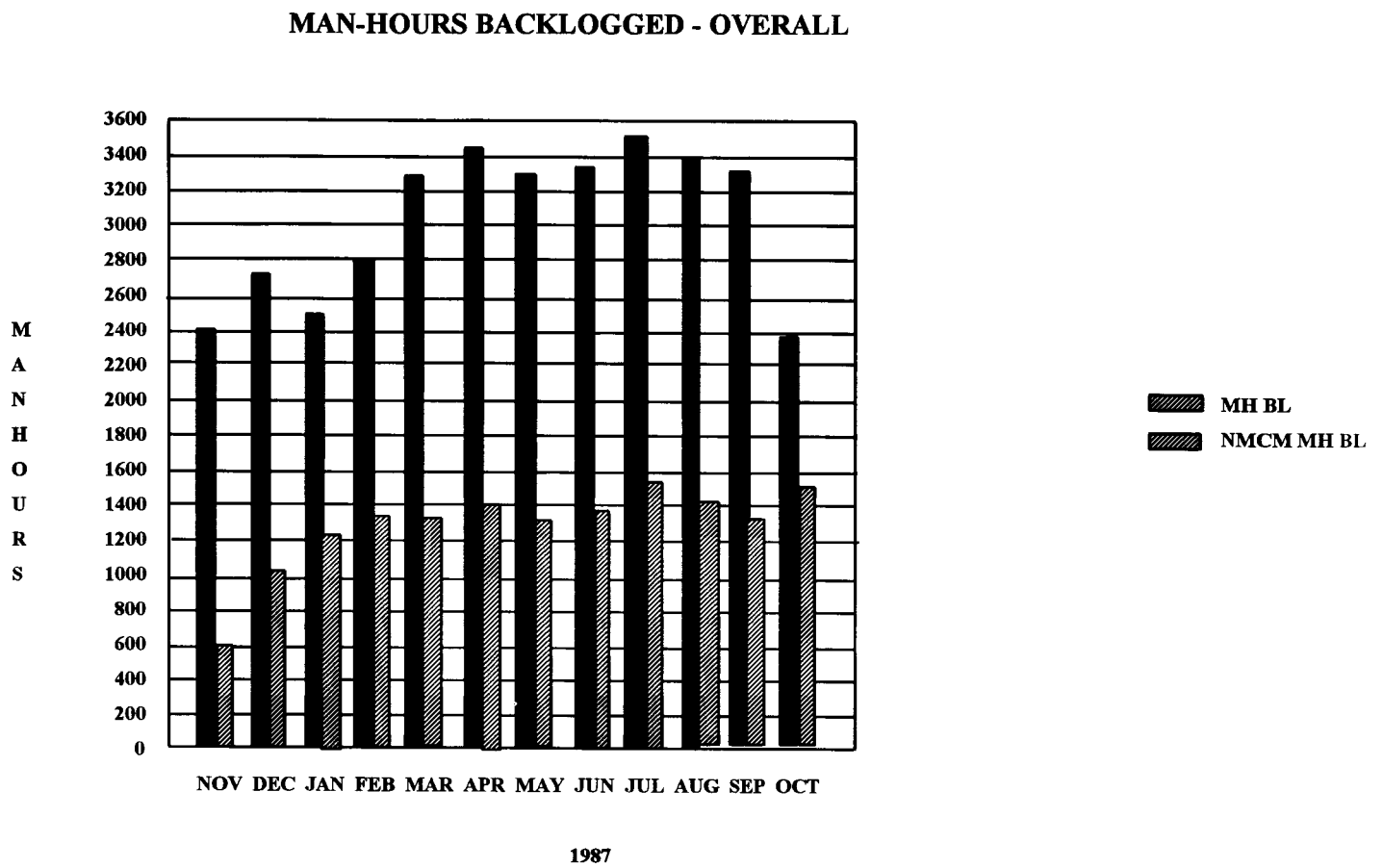


FIGURE 4-4. **Workload Age**

1. Questions:
   a. How many work orders by ECC have been delayed?
   b. What is the backlog by age and category?
   c. What work order age trends are being experienced?
   d. What commodities have the oldest work orders? Why?
   e. What support units have the oldest work orders by commodity?
2. How to get the information: From SAMS-2 BASELINE. Press ⇨⇩⇩⇨⇩⇩⇨⇩⇩⇩⇩ GO type 30 press RETURN type 60 press RETURN type 90 press RETURN press GO GO GO GO. The report will print what the trends mean.

PREPARED 28 AUG 90 TIME 1446 SAMS-2 WORKLOAD AGE SUMMARY LISTING PCN AHO011
PART II - UNIT/ACTIVITY
ECC'S SELECTED FOR THIS REPORT • DA DB
UIC SUPPORT UNIT NAME SUPPORT UNIT NAME BATTALION SPT: 799TH SPT BN
W9E9C0 C CO 799TH SPT RN
ECC ECC DESCRIPTION
OVER

NSN	MODEL OR NOUN	1-30 DAYS	31-60 DAYS	61-120 DAYS	120 DAYS
DA	TOWED HOW				
1015-00486-8164	M102	0	0	0	1
ECC DA TOTALS		0	0	0	1
DB	MORTARS				
101041420-5626	M224	0	0	0	3
ECC DB TOTALS		0	0	0	3
UIC WACTA0 TOTAL		(168	8	27	12)

3. You can graph the backlog by age in days and for each ECC or as an overall total. You can also graph the totals of separate units or for the entire division. The graph below is for the main support battalion.

FIGURE 4-4 (Cont).

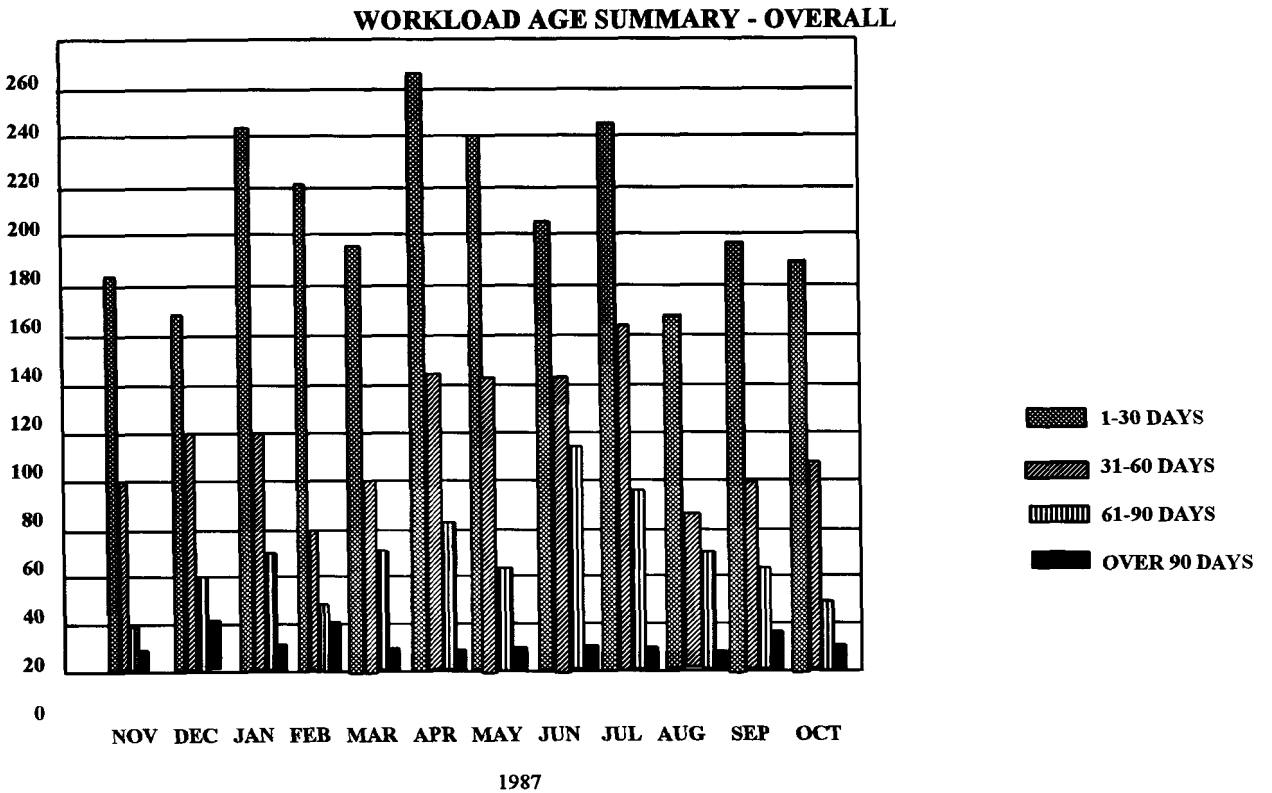


FIGURE 4-4 (Continued next page).

FIGURE 4-4 (Cont).

4. The above graph shows you the number of work orders in each of four age groups for a 12-month period. Analysis of the data can start with the following questions:

a. Is the workload getting older or younger?
b. If the workload is getting older, what is the cause?
c. Are parts delays increasing the age of the workload?
d. Are there problems with capacity or capability?
e. Has float been used to reduce the impact of an aging workload?
f. Are work orders spending too much time in one or several work order status's? Use the report in figure 3-5 to find work orders exceeding your standards.
g. Are there any trends? Good or bad trends need to be analyzed to understand why the trend is appearing.

FIGURE 4-5. **Maintenance Turnaround Time**

1. Questions:
a. What is the overall turnaround time for work orders?
b. What is the turnaround time for work order by commodity?
c. What is the turnaround time for work orders by support unit?
2. How to get the information: From SAMS-2 BASELINE. Press ⇨⇩⇩⇨⇩⇩⇩⇩⇨ GO, type last year's ordinal date (example: 86303), press RETURN, type today's ordinal date (example: 87303), press GO, GO, GO, GO.

PREPARED 30 OCT 87 — SAMS-2 SUPPORT MAINTENANCE TURNAROUND TIME (DAYS) UNIT/ACTIVITY — PCN AHO005

REPORT START DATE 86303
REPORT END DATE 87303 — COMMODITY CODES SELECTED FOR THIS REPORT - ALL

COMMODITY CODE C — COMMODITY CODE DESCRIPTION — COMBAT VEHICLES

UNIT NAME BATTALION SUPPORT 799TH SPT BN TOTAL
UNIT NAME SUPPORT C CO 799TH SPT BN

ECC	ECC DESCRIPTION	PD	NO WO COMPL	AVG DAYS • USER	AVG DAYS TO COMPL BY TYPE OF MAINTENANCE: REPAIR AND RETURN TO STOCK	REPAIR AND RETURN TO PROD	MWO	DX	OTHER	IN TRANS	AVG DAYS TO COMPL BY WO STATUS: WAIT SHOP	IN SHOP	WAIT PARTS	WAIT PK-UP
FB	TANK 90/105MM	01-03	1	32	0	0	0	0	0	0	0	0	0	1
	04-08		0	0	0	0	0	0	0	0	0	0	0	0
	09-15		10	3	0	0	0	0	0	1	0	0	0	4
GA	SP/ HOWITZERS	01-03	16	25	63	3	0	0	0	0	0	3	49	2
	04-08		0	0	0	0	0	0	0	0	0	0	0	0
	09-15		70	3	0	3	0	0	0	3	0	0	0	3
COMMODITY CODE TOTALS		01-03	30	29			0	0	0	3	0	0	30	2
	04-08		0	0			0	0	0	0	0	0	0	0
	09-15		70	7			0	0	0	2	0	0	0	4
UIC SPT W9K9C0	TOTALS	01-03	1447	7	51	0	0	0	0	0	1	1	27	2
	04-08		51	12	45	9	0	0	0	2	0	0	33	2
	09-15		534	6	77	0	0	0	0	2	0	0	11	3

unit avg for ECC-FB

unit avg for commodity-C

unit avg for all work orders

we are plotted on graph 4-6 as Oct data

FIGURE 4-5 (Cont).

3. The above report shows the turnaround time in days by ECC within commodity code C. The data is grouped by priority, allowing the manager to focus on high-priority items. To focus on a specific item, each ECC within the commodity code is listed separately.

4. The chart below shows the average turnaround time for one ECC for one maintenance unit. Turnaround time is the overall measure of the duration of the maintenance cycle. It gives an indication of the responsiveness of the maintenance organization to its customer. If an unfavorable trend exists, turnaround time should be analyzed by commodity by unit. If an unfavorable trend exists, suggested questions are:

a. What is the availability and utilization of direct labor personnel?
b. Are there problems with inspection procedures? Are there delays in completing inspections?
c. What is the ratio of direct labor personnel to workstation by shop section?
d. Are the quantities of tools and TMDE adequate? Are quantities of lift and materials handling equipment adequate?
e. Are requisition priorities correct?
f. Are supply reconciliation procedures adequate?
g. Are there problems with the authorized stockage list?
h. Is supply performance meeting the standards?
i. How much time or delay is occurring as a job passes through each workstation? (For example, awaiting inspection, etc.)

FIGURE 4-5 (Continued next page).

FIGURE 4-5 (Cont).

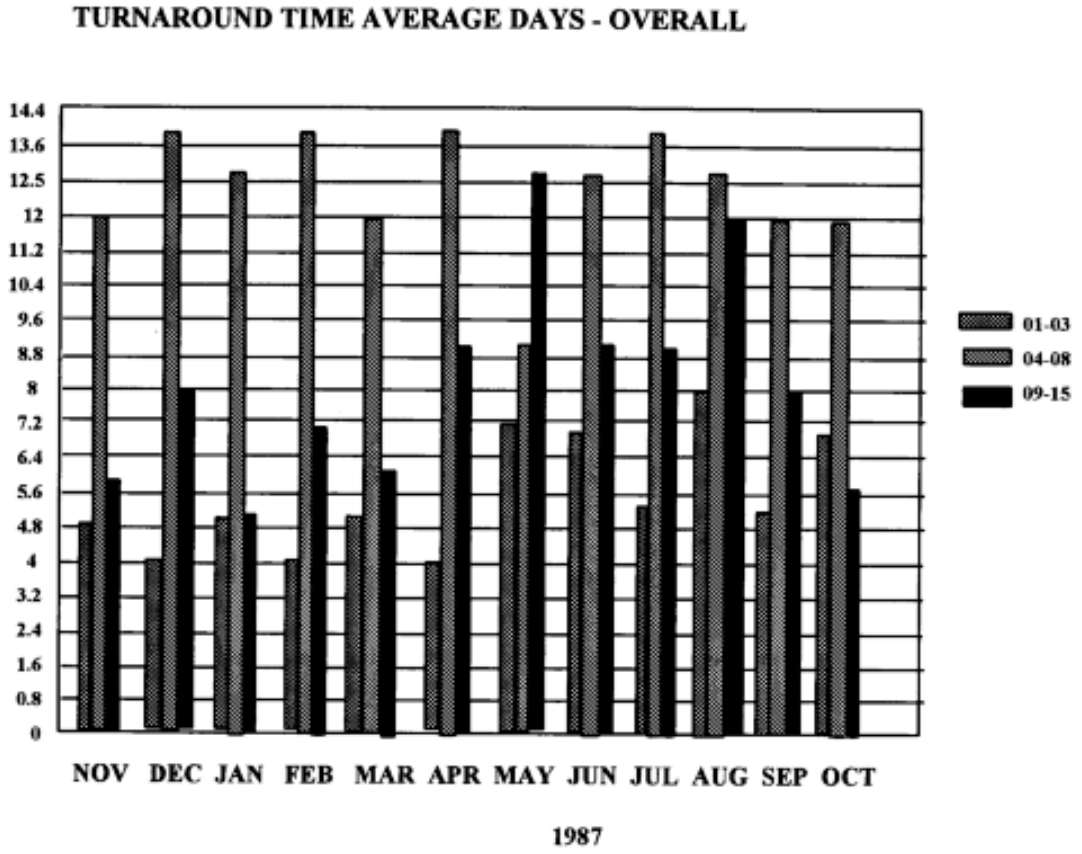


FIGURE 4-6. **Mean Time to Repair**

1. Questions:
   a. What is the mean time in man-hours to repair items?
   b. What is the mean time in man-hours to repair items by commodity?
   c. What is the mean time in man-hours to repair items by support unit?

2. How to get the information: From SAMS-2 BASELINE. Press ⇨⇩⇩⇨⇩⇩⇩⇩⇨⇩⇩ The highlighter will have MTTR by unit. Press GO. Enter the report start and end dates. For example: type 87273, press RETURN, type 87303, press RETURN. At this point, you have two options. The first option allows you to select the mean time to repair for a commodity. For example: type C, press GO, GO. The report will print. The second option allows you to select the mean time to repair for a specific ECC. Press GO and enter the ECC code. For example: type GD, press GO, GO. The following report will print.

PREPARED 01 JAN 90 TIME 1540 — SAMS-2 SUPPORT MAINTENANCE MEANTIME TO REPAIR (MAN-HOURS) — PCN AHO007

REPORT START DATE 89001
REPORT END DATE 90001

UNIT/ACTIVITY

COMMODITY CODE SELECTED FOR THIS REPORT = C

UNIT NAME BATTALION SUPPORT
799TH SPT BN
COMMODITY CODE C

UNIT NAME SUPPORT
E CO 799TH SPT BN
COMMODITY CODE DESCRIPTION COMBAT VEHICLES

ECC	ECC DESCRIPTION	PD	QTY RPR	TOTAL MH EXP TENTHS	AVG MH TENTHS	AVERAGE MAN-HOURS TENTHS BY TYPE MAINTENANCE: REPAIR AND RETURN TO USER	STOCK	PROD	ORF	MWO	DX	OTHER
GD	S/P GUNS	01-03	3	13.00	4.3	4.3	.0	.0	.0	.0	.0	.0
		04-08	3	21.75	7.2	7.6	.0	.0	.0	.0	.0	.0
		09-15	36	408.50	11.3	11.3	.0	.0	.0	.0	.0	.0
COMMODITY CODE TOTALS		01-03	3	13.00	4.3	4.3	.0	.0	.0	.0	.0	.0
		04-08	3	21.75	7.2	7.2	.0	.0	.0	.0	.0	.0
		09-15	36	408.50	11.3	11.3	.0	.0	.0	.0	.0	.0
UIC SPT TOTALS		01-03	3	13.00	4.3	4.3	.0	.0	.0	.0	.0	.0
W9K9E0		04-08	3	21.75	7.2	7.2	.0	.0	.0	.0	.0	.0
		09-1 5	36	408.50	11.3	11.3	.0	.0	.0	.0	.0	.0

FIGURE 4-6 (Cont).

3. The graph below shows the data for ECC GD.

a. Analysis of trends and variations in performance only starts here.

b. Changes in capacity or capability to perform repairs by system will be reflected here. An increasing mean time to repair may indicate a skill deficiency which translates into a training requirement.

c. If skill proficiency is high and mean time to repair is going up, this may indicate supervision problems or other capability problems; i.e., tools, TMDE, etc.

d. Has a turnover in people affected performance?

e. Compare the mean time to repair with the rejection rate at final inspection. An increasing rejection rate will result in a higher mean time to repair. Ask the inspectors why the work is being rejected. The answer will tell you where the cause lies and where you must apply a solution as a manager.

FIGURE 4-6 (Continued next page).

FIGURE 4-6. **Mean Time to Repair**

1. Questions:
   a. What is the mean time in man-hours to repair items?
   b. What is the mean time in man-hours to repair items by commodity?
   c. What is the mean time in man-hours to repair items by support unit?

2. How to get the information: From SAMS-2 BASELINE. Press ⇨⇩⇩⇨⇩⇩⇩⇩⇨⇩⇩ The highlighter will have MTTR by unit. Press GO. Enter the report start and end dates. For example: type 87273, press RETURN, type 87303, press RETURN. At this point, you have two options. The first option allows you to select the mean time to repair for a commodity. For example: type C, press GO, GO. The report will print. The second option allows you to select the mean time to repair for a specific ECC. Press GO and enter the ECC code. For example: type GD, press GO, GO. The following report will print.

PREPARED 01 JAN 90 TIME 1540 — SAMS-2 SUPPORT MAINTENANCE MEANTIME TO REPAIR (MAN-HOURS) — PCN AHO007

REPORT START DATE 89001
REPORT END DATE 90001

UNIT/ACTIVITY

COMMODITY CODE SELECTED FOR THIS REPORT = C

UNIT NAME BATTALION SUPPORT 799TH SPT BN
COMMODITY CODE C

UNIT NAME SUPPORT E CO 799TH SPT BN
COMMODITY CODE DESCRIPTION COMBAT VEHICLES

ECC	ECC DESCRIPTION	PD	QTY RPR	TOTAL MH EXP TENTHS	AVG MH TENTHS	AVERAGE MAN-HOURS TENTHS BY TYPE MAINTENANCE: REPAIR AND RETURN TO USER	STOCK	PROD	ORF	MWO	DX	OTHER
GD	S/P GUNS	01-03	3	13.00 .	4.3	4.3	.0	.0	.0	.0	.0	.0
		04-08	3	21.75	7.2	7.6	.0	.0	.0	.0	.0	.0
		09-15	36	408.50	11.3	11.3	.0	.0	.0	.0	.0	.0
COMMODITY CODE TOTALS		01-03	3	13.00	4.3	4.3	.0	.0	.0	.0	.0	.0
		04-08	3	21.75	7.2	7.2	.0	.0	.0	.0	.0	.0
		09-15	36	408.50	11.3	11.3	.0	.0	.0	.0	.0	.0
UIC SPT TOTALS		01-03	3	13.00	4.3	4.3	.0	.0	.0	.0	.0	.0
W9K9E0		04-08	3	21.75	7.2	7.2	.0	.0	.0	.0	.0	.0
		09-1 5	36	408.50	11.3	11.3	.0	.0	.0	.0	.0	.0

FIGURE 4-6 (Cont).

3. The graph below shows the data for ECC GD.

a. Analysis of trends and variations in performance only starts here.

b. Changes in capacity or capability to perform repairs by system will be reflected here. An increasing mean time to repair may indicate a skill deficiency which translates into a training requirement.

c. If skill proficiency is high and mean time to repair is going up, this may indicate supervision problems or other capability problems; i.e., tools, TMDE, etc.

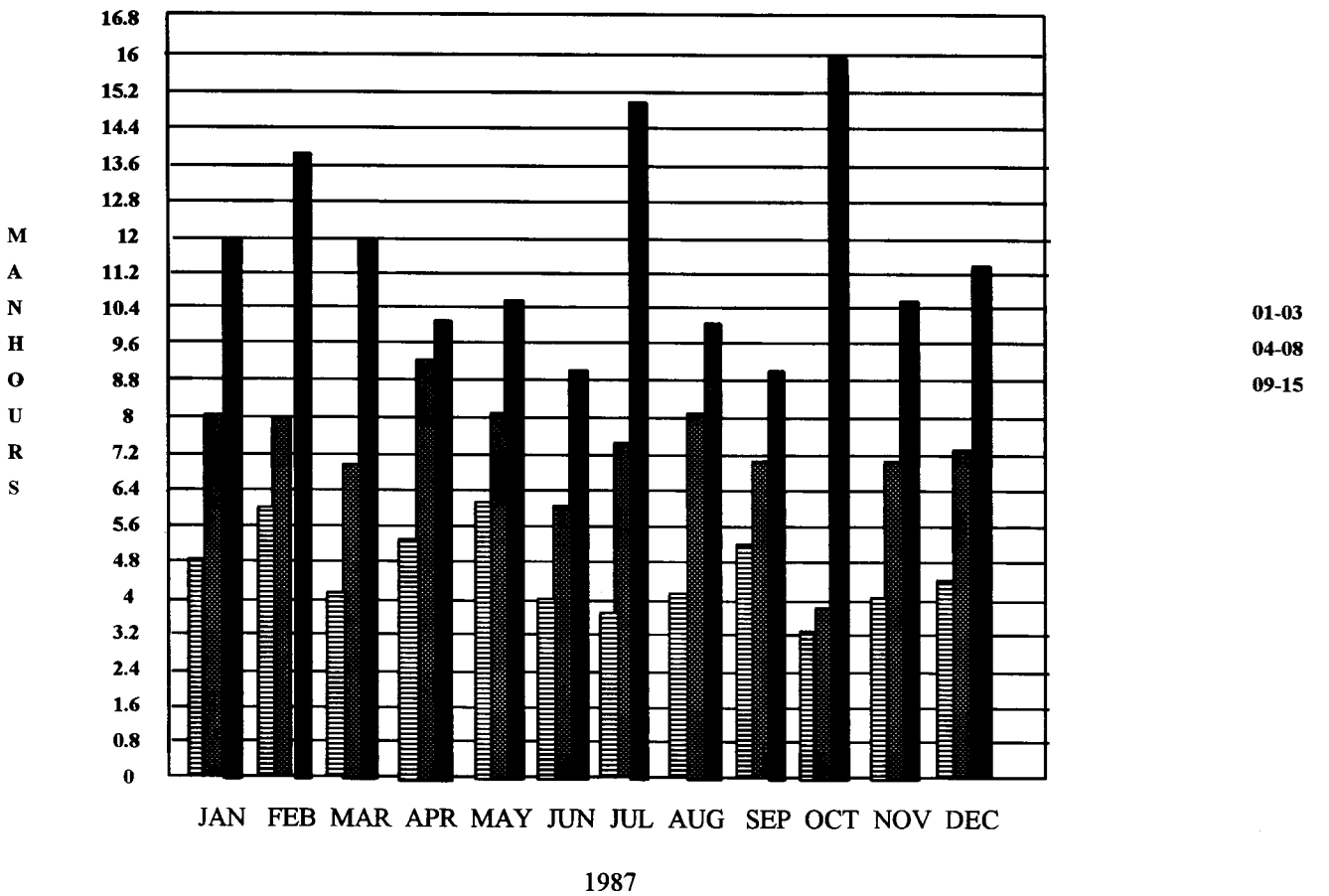
d. Has a turnover in people affected performance?

e. Compare the mean time to repair with the rejection rate at final inspection. An increasing rejection rate will result in a higher mean time to repair. Ask the inspectors why the work is being rejected. The answer will tell you where the cause lies and where you must apply a solution as a manager.

FIGURE 4-6 (Continued next page).

FIGURE 4-6 (Cont).

MEAN TIME TO REPAIR AVERAGE MAN-HOURS
OVERALL



HOW TO MAKE BAR GRAPHS

STEPS:

1 SIGN ON PROCEDURES - TURN ON THE TACCS AND YOU WILL SEE THE SAMS-1 OR SAMS-2 LOGO.
2 TYPE OFFICE, TYPE IN YOUR PASSWORD. TYPE THE DAT/TIME. PRESS GO.
3 THE SCREEN WILL SHOW OFFICE AUTOMATION MENU - MOVE THE HIGHLIGHTER DOWN TO GRAPHICS USING THE x KEY. PRESS Go.
4 THE SCREEN WILL SHOW WORKSTATION GRAPHIC EDITOR.
5 PRESS F1 TO CREATE GRAPH.
6 THE SCREEN WILL SHOW GRAPH TITLE. TYPE IN TITLE OF GRAPH. FOR EXAMPLE, WORKLOAD BACKLOG ITEMS.
7 THE NEXT LINE; GRAPH TYPE: MAKE SURE THE HIGHLIGHTER IS OVER VERTICAL BAR. PRESS GO, GO. THE HIGHLIGHTER IS UNDER LEGENDS.
8 TYPE ITEMS BL, PRESS RETURN.
9 TYPE OVER 30 DAYS. PRESS GO, GO. THE HIGHLIGHTER IS UNDER GROUPS.
TYPE JAN PRESS RETURN
TYPE FEB PRESS RETURN
AND SOON UNTIL YOU COVER THE MONTHS DESIRED ON THE GRAPH. PRESS GO, GO. THE HIGHLIGHTER WILL BE UNDER VALUES.
10 TYPE IN THE NUMBER YOU WISH TO ENTER AFTER JAN FOR ITEMS BL. EXAMPLE 690. PRESS RETURN.
11 TYPE IN THE NUMBERS FOR OVER 30 DAYS. EXAMPLE 280. PRESS GO, GO.

(NOTE: AS YOU MOVE ACROSS THE GRAPH, THE COMPUTER TELLS YOU WHAT MONTH IT IS AT THE UPPER LEFT OF THE SCREEN).

STEPS (Cent)

12 CONTINUE ADDING NUMBERS UNTIL VALUES FOR ALL MONTHS ARE ENTERED. PRESS GO, GO.

13 THE NEXT SCREEN WILL SHOW THE GRAPH YOU CREATED. TO PRINT THIS CHART WITHOUT SAVING THE GRAPH IN THE COMPUTER, PRESS F5.

14 TO MODIFY THE GRAPH BEFORE YOU SAVE IT, PRESS F2, PRESS F4.
(NOTE: TO MODIFY A DIFFERENT AREA ON THE GRAPH, PRESS THE CORRESPONDING KEY F1 TO F5.)

15 PRESS GO UNTIL THE MONTH IN WHICH YOU WANT TO CHANGE VALUES APPEARS NEXT TO THE WORD GROUP. (EX GROUP: JULY)

16 PRESS OVERTYPE. ENSURE THE RED LIGHT IS ON.

17 TYPE IN THE NEW VALUE. PRESS RETURN.

18 TO CHANGE THE NEXT VALUE ON THE SCREEN, PRESS RETURN.

19 TOGO TO A DIFFERENT MONTH, PRESS GO, GO.

20 REPEAT THIS PROCESS UNTIL YOU HAVE MODIFIED THE VALUES IN YOUR GRAPH.

21 PRESS GO UNTIL THE MIDDLE SECTION OF THE SCREEN IS BLANK.

22 PRESS F1O TO VIEW THE GRAPH. TO PRINT, PRESS F5. WAIT FOR THE CHART TO COME ON THE SCREEN.

23 TO SAVE, PRESS F3 THE HIGHLIGHTER WILL BE ON FILE LINE. YOU MUST TYPE IN THE NAME OF THE FILE. EXAMPLE, WORKLOAD BACKLOG ITEMS. PRESS GO.

24 TO EXIT, PRESS F1O, GO.

UPDATING A BAR GRAPH

STEPS:

1 REPEAT STEPS 1 THROUGH 4 ABOVE. PRESS GO.

2 PRESS F4 TO LOAD. TYPE IN THE FILE NAME EXACTLY AS IT APPEARS ON THE GRAPH TITLE LINE. PRESS GO (EXAMPLE, WORKLOAD BACKLOG-ITEMS).

3 PRESS F2 (MODIFY).

4 WHAT DO YOU WANT TO UPDATE? FOR EXAMPLE, LET'S USE VALUES. PRESS F4.

5 REPEAT STEPS 15 THROUGH 22 ABOVE.

6 YOUR GRAPH IS ON THE SCREEN AND READY TO PRINT. PRESS F1O.

7 IF YOU WERE UPDATING A PREVIOUSLY SAVED GRAPH, THE MACHINE WOULD ASK YOU IF YOU WANT TO SAVE CURRENT CHANGES BEFORE PROCEEDING.

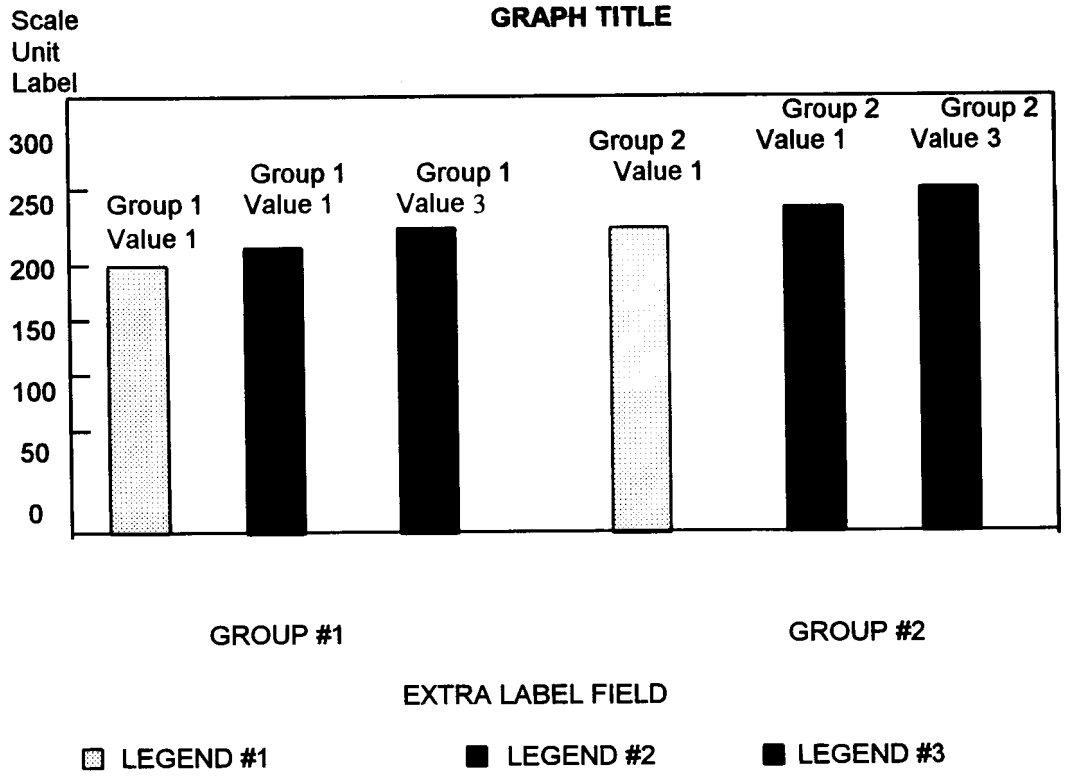
8 IF THE ANSWER IS YES, PRESS GO, GO, GO.

9 TO RETURN To THE TACCS SIGN ON SCREEN, PRESS FINISH.

10 TO SATISFY ADDITIONAL NEEDS, WORKSTATION GRAPHICS MAYBE USED TO CREATE DIFFERENT GRAPHS. BY USING THIS PROCESS, NEW GRAPHS MAY BE CREATED OR OLD GRAPHS MODIFIED. SEE YOUR LOGISTICS AUTOMATION SYSTEMS STAFF OFFICER (LASSO) AT THE MMC FOR ADDITIONAL INFORMATION.

NOTE: SEE FIGURE 4-7 FOR AN EXAMPLE OF A GRAPH.

FIGURE 4-7. **To Make a Graph**



CHAPTER 5

ASSOCIATED MAINTENANCE MANAGEMENT FUNCTIONS

This chapter contains equally important functions of maintenance management not specifically addressed in other parts of this guide. These functions are vital to a proactive maintenance program and should be performed and managed accordingly. The subject matter is presented in short narrative and question format and is intended for use by commanders and maintenance managers at company, battalion, and DMMC/DISCOMlevels.

5-1. **Customer relations**

a. Achieving the best results in maintenance operations requires a high degree of coordination and cooperation between maintenance support units and supported units. They must share the responsibility of identifying weaknesses and problems in maintenance operations and work jointly to resolve them. To communicate effectively, mutual understanding and trust must be developed between units. To foster this relationship, support unit commanders and managers should:

(1) know:

(a) The key people in the supported units.

(b) The mission of the supported units.

(c) The training plan of the units.

(d) How the units manage their unit maintenance operations

(e) How to identifyweaknesses in the supported unit's maintenance operations, MOS skills, and training.

(f) The type and condition of the supported equipment.

(g) The support required or desired versus the capability and capacity available to meet the requirement.

(2) Have frequent contact with key people in the supported units.

(3) Respond to actual or perceived problems and complaints about support provided and resolve the issues without damaging communication channels.

(4) Tactfully discuss problems and weaknesses with the supported unit commanders.

b. Use the following questions to help you evaluate your customer relations:

(1) What are the names of the battalion and company commanders, the battalion maintenance officer, and maintenance NCOs?

(2) Do you regularly discuss mutual issues with your supported units?
(3) What are the supported units' perceived problems with their maintenance operations and with the support they receive?
(4) What is the attitude of the supported units towards the Supporting unit?
(5)Are commanders actively working towards elimination of negative attitudes?
(6) Are there complaints or rumors that need resolution?
(7) Has there been open and detailed discussion about complaints and rumors?
(8) Are the problems of supported units treated as privileged information?
(9) Is there mutual trust between units?
(10) What equipment on work order is critical to the supported unit's training programs?
(11) Has the external SOP been revised to eliminate any unnecessary administrative burden on the supported units?

5-2. **Technical assistance.**

a. The responsibility for technical assistance is specified in AR 750-1, chapter 4, section III. Unsolicited technical assistance should be offered to a supported unit when weaknesses are identified in performance of diagnostics or maintenance operations. Indicators of weaknesses can be monitored when equipment is submitted for repair. Some indicators are:

(1) A consistently high number of unit level deficiencies indicating poor unit level maintenance. This may be caused by
(a) Insufficient or poor MOS skills.
(b) Failure to follow proper technical procedures.
(c)Unit workload exceeding capacity.
(d)Poor supervision or maintenance discipline.
(e) Perception that the support unit is required to perform unit level repairs on a regular basis.
(2) Equipment work ordered for repair, when tested, indicating evidence of failure. This is reported as action code P. Code P items ma result from:
(b) Inadequate or wrong test equipment.
(c) Failure to follow correct technical procedures
(d) Improper test procedures in TMs.
(e) Inadequate MOS skills.
(f) Complete technical inspections not conducted prior to evacuation.
(3) Excessive time lapse before NMC equipment is evacuated to higher level maintenance. This may be caused by:
(a) Unit level workload exceeding capacity.
(b) Inadequate operational control procedures or a lack of supervision.

(c) Equipment continued in use after it is NMC.
b. Liaison visits to supported units can confirm weaknesses in maintenance performance and identify the need for technical assistance. It is not our intent to imply that support units inspect supported units. However, when requested, evaluation of unit level operations may include a thorough review of all unit maintenance operations. To assist you in observing a supported unit's operations and analyzing what you have observed, use the following questions to focus on the causes of problems:
(1) Does the unit have controlled on-the-job training for maintenance skills?
(2) Do operators and mechanics follow approved technical procedures when performing maintenance?
(3) Are scheduled maintenance periods actively supervised?
(4) Is test equipment used?
(5) Does the unit trouble shoot by component replacement?
(6) Has the unit workload exceeded its capacity?
(7) Does the unit have all required tools and TMDE?
(8) Are current publications on hand and in the work area?
(9) Is NMC equipment continued in use?
(10) Is equipment checked by a qualified NCO to ensure equipment has been correctly prepared for evacuation?
(11) Has the unit identified technical training requirements where the support unit can provide training?
(12) Is the support unit conducting courtesy inspections when requested'?
(13) Are MST and unit level mechanics working together to resolve problems?
(14) How many items are evacuated for repair that are diagnosed as no-evidence-of-failure?
(15) What percentage of items is evacuated for repair with unit level deficiencies?
(16) Are faults properly identified on work requests?
(17) Is the same item with the same fault being repeatedly returned for repair?
(18) Does the support unit provide technical assistance to the user on preparing QDRs and EIRs?
(19) Do the support units have the capability to provide technical assistance required or do they assist the units in obtaining assistance from higher levels of maintenance or the MAIT or AMC LAO?

5-3. **Shop supply.**
a. An effective shop supply operation is essential to responsive maintenance support. Automated procedures in SAMS have reduced the burden of manual procedures. However, automation has not alleviated the need for motivated shop supply clerks. Commanders and managers can ensure satisfying repair parts support by-
(1) Periodically reviewing shop supply operations for compliance with DA Pam 710-2-2

(2) Requiring performance to command standards.
(3) Ensuring shop supply clerks are properly trained and capable of performing their duties.
(4) Verifying that available supply assistance is being used to the maximum advantage.
(5) Maintaining vigorous follow upon all maintenance supply actions to ensure supply responsiveness.
(6) Promoting alternative sources of supply like-
(a) Cross-leveling.
(b) Controlled substitution.
(c) Cannibalization.
(d) Using next higher assembly
(e) Fabrication.
(f) Local purchase.
b. To assist you in focusing on problems start with the following questions:
(1) Is the NMCS time too long?
(2) How can NMCS be reduced?
(3) Are there delays in requisitioning parts?
(4) What are the rejection and cancellation rates for requisitions?
(5) How many requisitions are for the wrong parts?
(6) What alternative supply sources are used?
(7) How many shop stock and bench stock lines are at zero balance?
(8) What Items are excess in shop stock and bench stock?
(g) Are excesses being turned in a timely manner?
(10) Is location accuracy within standards?
(11) Have supply problems been reported to the battalion staff and DMMC?
(12) Do shop supply clerks follow up on aging requests?
(13) What is the battalion staff and the DMMC doing to provide assistance m solving problems?

5-4. **Publications.**

a. The management and use of publications are crucial to an effective maintenance operation. Publications are the primary source of
(1) Technical information and procedures.
(2) Training material.
(3) Operational policy and procedures.
b. The key to getting the maximum benefit from publications is to have-
(1) A sufficient updated quantity of the right publications on hand.
(2) Publications located m the work area.
(3) Maintenance personnel follow procedures in technical publications when performing diagnostic and repair functions.
c. To focus on publications problems start with the following questions:

(1) Is there a capable NCO managing publications?
(2) Is DA Pam 25-30 reviewed to identify current requirements?
(3) Isa current DA Form 12-series on file at the U.S. Army Publications and Distribution Center-Baltimore?
(4) Have all requirements been requisitioned and placed on pinpoint distribution?
(5) If receipt of publications has not been timely, what action is being taken to tell Baltimore or St. Louis distribution center?
(6) Are changes posted on a timely basis?
(7) Is there a current file of messages and letters on safety-of-inuse and technical changes?
(8) Are you submitting recommended changes to publications (DA Form 2028)?
(9) Do mechanics understand how to use publications?
(10) Do mechanics use technical manuals when performing maintenance?
(11) Can mechanics read and understand technical manuals and other publications they use?
(12) Do mechanics know whereto find what special tools are required for a job?
d. You can get a list of all technical publications for the you support by sending a request with your level of maintenance and a list of equipment by LIN and if possible the NSN, to:
Commander
USAMC - Materiel Readiness Support Activity
ATTN: AMXMD-MP
Lexington, KY 40511-51O1

5-5. **Tools and TMDE**
a. Without the proper tools and TMDE, quality maintenance performance is not possible. Tools come in two categories, general purpose and special. Both tools and TMDE are authorized MTOEs and TMs.
Commanders and managers must be aware of the requirements for special tools and TMDE as a result of new equipment and changes in mission. They must also do the following:
(1) Verify tools and TMDE on hand against MTOE and TM authorizations.
(2) Compare sets, kits, and outfits (SKO) with supply catalogs to ensure completeness.
(3) Verify requirements for special tools and TMDE from lists of equipment to be supported, new equipment fielding plans, repair parts and special tools lists, and technical manuals.
(4) Ensure special tools and TMDE are calibrated.
b. To help you focus on problems start with these questions:
(1) Do you know what tools and TMDE are required for the equipment you support and will support?

(2) Are the required tools and TMDE on hand or on order?
(3) For those tools and TMDE on hand, do you know where they are and who is hand receipted for them?
(4) Are procedures in DA Pam 710-5 followed for control and inventory of tools and TMDE?
(5) Are there sufficient special tools and TMDE on hand to multiple locations simultaneously?
(6) Are the tools serviceable?
(7) Who is assigned responsibility for the calibration control program?
(8) Is the technical bulletin for calibration requirements current and on hand?
(9) Are calibration data cards being maintained?
(10) Are special tools and TMDE being calibrated when required?
(11) Are soldiers using special tools and TMDE that are out tolerance and require calibration?
(12) Is training conducted on the use of special tools and TMDE?
(13) Are mechanics' skills verified to ensure they know how to use tools and TMDE?

5-6. **Personnel Management**

a. Developing and sustaining required technical skills and maintaining high direct labor utilization are the most difficult aspects of maintenance capability and capacity management. Without forethought about personnel turbulence caused by rotational requirements and active training programs, adverse impact on maintenance capability and capacity can occur. Commanders and maintenance managers must monitor maintenance skill capabilities and the impact of personnel turbulence to ensure personnel requirements are properly support The stated current levels of skill performance of maintenance personnel may be determined using a combination of evaluations such as:
(1) Unit ARTEP results
(2) Individual SQT results.
(3) Observation of on the job performance by first and second line supervisors.
(4) Unit workload turnover trends.
(5) Workload rejection rates

b. The skill levels in different MOSS within a unit should be compared to the skills required to repair equipment supported or projected for future of support. This can be done by constructing a matrix comparing the different equipment models and their MOS skill requirements with on hand skill capabilities. See Figure 5-1. With this information you should determine your maintenance cross-training requirements.

c. The following questions will get you started:
(1) What are the MOS and skill level requirements for the equipment supported?
(2) Are the required MOSS and skill level soldiers on hand?

(3) What is the MOS and skill level shortfall by type of equipment and shop section?
(4) What are the projected losses and gains for the next 90 days?
(5) How will the projected shortfall affect capacity and your ability to support?
(6) Are soldiers with critical MOSS assigned to manager non-maintenance positions?
(7) How can skills not used on a regular basis be sustained?
(8) What are the internal and external MOS training requirements?
(9) Is there an internal cross-training program?
(10) Is on-the-job training controlled to ensure required skills are trained and proficiency is achieved?
(11) Have external training requirements been forwarded through the chain of command? Are soldiers selected for BNCOC and ANCOC released to attend the training?
(12) Is direct labor utilization within acceptable standards? (50 percent for soldiers and 85 percent for civilians)
(13) Do officers and NCOS plan their soldiers' time to maximize the time in the shop?
(14) Are diversions from the shops absorbed by sections where capacity can absorb the requirement without adversely affecting the mission?
(15) Do section chiefs and platoon sergeants plan for soldier time off for personal affairs and rest?
(16) Are soldiers working weekends and overtime to makeup for poor direct labor utilization during the week?

5-7. **Recognition and awards.**

a. Performance can be influenced in many ways. The commander and must constantly ensure that enthusiasm, initiative, and superior performance are recognized. Recognition of superior performance can be accomplished using a wide range of options from "thank you" to a formal award.

b. In addition to informal recognition on a personal basis, commanders and managers should promote an active awards program based on specific criteria. Start your analysis by asking the following questions:
(1) Is there an awards program that recognizes individuals, sections, and units?
(2) Are supervisors supporting the program by identifying deserving soldiers?
(3) How many mechanic and driver badges have been awarded?
(4) Is there a general perception that all soldiers have the opportunity to compete for awards and promotions?

c. In addition to the above, other actions can serve to support an active program. Determine if-
(1) Awards and promotions are timely.
(2) The leave and pass policy is fair and reasonable?

(3) Weekend duty in garrison is kept to a minimum.
(4) Training opportunities are provided to deserving soldiers to assist in their career development.

5-8. **Safety.**

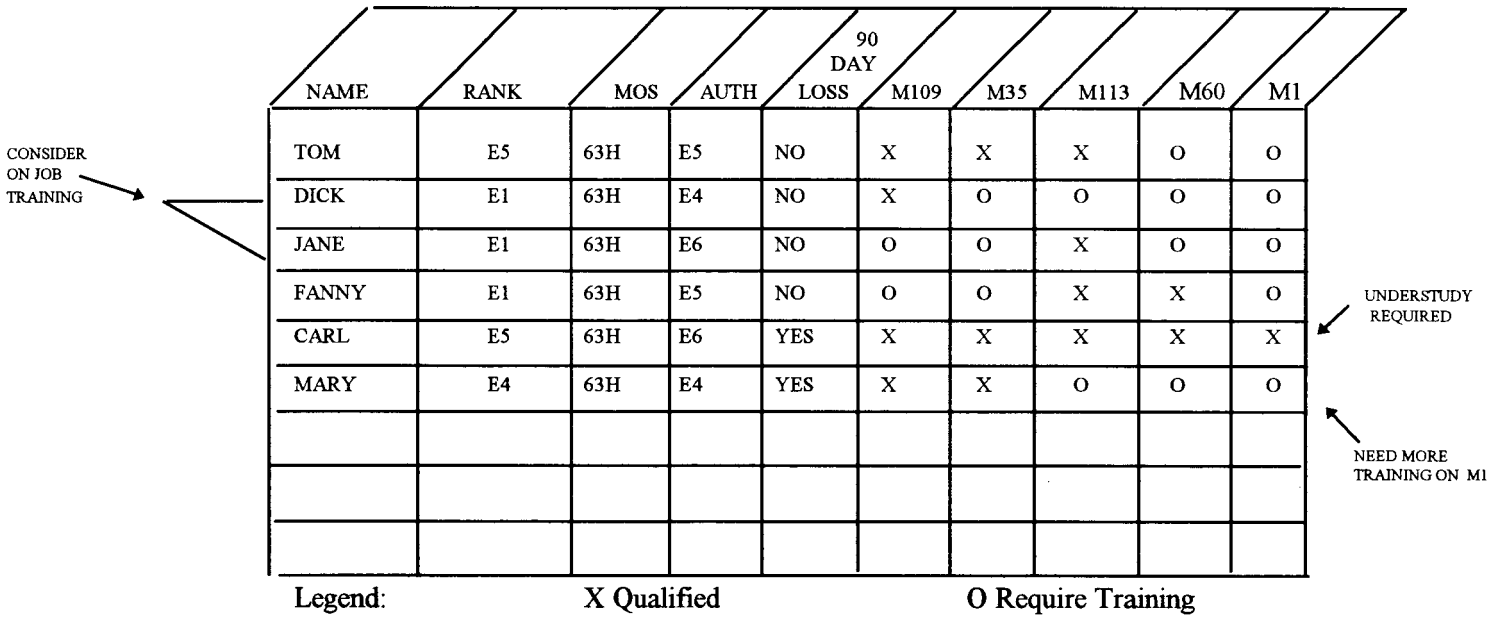
a. The need for safety can never be overstated. Commanders and maintenance managers must constantly preach safe practices to ensure everything possible is done to protect soldiers from accidents. The U.S. Army Safety Program provides volumes of material dealing with all aspects of safety. The basic requirements for a unit safety program are outlined in AR 385-10 and DA Pam 385-1. Our purpose is to focus on safety as a part of maintenance management. The following questions can get you started:

(1) Are performance standards too high causing soldiers to work in an unsafe manner in attempting to meet the standards?
(2) Are safety indicators checked during initial and final inspections?
(3) Are possible hidden deficiencies checked when repairs are in progress to ensure an unsafe vehicle is not placed on the road?
(4) Are critical safety points double checked?
(5) Are results of accident reports reviewed to determine if maintenance practices and procedures contributed to the accident?
(6) Are safetyof-use reports read by all users and maintainers of the applicable equipment?
(7) Are safety-of-use messages kept on file?
(8) Is each shop accident reviewed by all-commanders and maintenance managers?
(9) Are unsafe unit maintenance practices discussed with support unit commanders?

b. The list could go on. The point made here is that commanders and maintenance managers must look at the information generated from the use of equipment and the processes of maintaining the equipment and apply that information to preventing accidents.

c. The list will stop here for now. The authors invite you to make your own list of questions for those maintenance operations you find important.

Figure 5-1. **Personnel Skill Matrix**



NAME	RANK	MOS	AUTH	90 DAY LOSS	M109	M35	M113	M60	M1
TOM	E5	63H	E5	NO	X	X	X	O	O
DICK	E1	63H	E4	NO	X	O	O	O	O
JANE	E1	63H	E6	NO	O	O	X	O	O
FANNY	E1	63H	E5	NO	O	O	X	X	O
CARL	E5	63H	E6	YES	X	X	X	X	X
MARY	E4	63H	E4	YES	X	X	O	O	O

Legend: X Qualified O Require Training

CHAPTER 6

AD HOC INQUIRY

Section 1. Introduction

6-1. Throughout chapters 2 and 3 you have used a feature of SAMS called ad hoc inquiry. Ad hoc inquiry is a powerful tool that gives you information that can't be obtained from a preformatted report (a report that is one of the choices on the menu). Ad hoc inquiry allows you to pull information out of the computer's data base to satisfy your needs for specific information.

6-2. Ad hoc inquiry has certain limitations. Ad hoc inquiry cannot compare values or do calculations. All it does is select, from a large group of data, a certain range of data. Ad hoc inquiry makes available to you every one of the hundreds of data elements that are put into the computer. If the data element you are looking for is in the computer, you can draw it out using ad hoc inquiry. If it was not put into the computer, it can't be obtained through ad hoc inquiry. For example, turnaround times cannot be obtained through ad hoc inquiry. Turnaround time is never entered into the data base. Turnaround time is calculated from related data elements (the date the job was opened and the date the job was closed out). So, although ad hoc inquiry cannot compute turnaround times for you, it can provide a list of jobs that have been open (or closed) since a certain date. As we have seen in the sample reports in chapters 2 and 3, ad hoc inquiry can select data that ranges from ordinal dates 86303 through 87303. Even with these limitations, ad hoc inquiry fills the gap between the data requirements of your peculiar circumstances and what a preformatted report provides.

6-3. The first step in using ad hoc inquiry to solve your peculiar need for information is to know what question you want answered. Next you must know where to get the data elements that will answer your question. The available data is organized into files. Take a look at AISM 18-L21-AHN-BUR-EM (SAMS-1 User's Manual) section 8, or AISM 18-L26-AHO-BUR-EM (SAMS-2 End User Manual) section 5. These sections of the SAMS-1 and SAMS-2 End user Manuals contain a list of all the files in each system. They are given both a name, such as UIC MASTER and a file identification number, such as AHNO 11. To ensure we get it right, AHNO 11 is ALPHA, HOTEL, NOVEMBER ZERO, ONE,

INDIA. There are 17 such files in SAMS-1 and 21 files in SAMS-2. One of the SAMS-1 files will now be discussed in detail. (The structure of the SAMS-2 files is very similar.)

6-4. The UIC master file, file ID AHNO11, contains information about all customer units and about the support unit(s). The AHNO11 file takes up 1-1/2 pages of space in the SAMS-1 user's manual. Each line on these pages represents a data element that is available for ad hoc reports.

6-5. The second column from the left entitled "Screen/Literal" lists the data elements by their title. If the meaning of any of the titles is unclear, more information about the data elements can be found elsewhere in the SAMS-1 user's manual. Each page of data elements has, at the top of the page, a reference to the appropriate paragraph of the user's manual. The left hand column is entitled Ad Hoc Alias. This is a code word for the data element that is used when filling out the ad hoc inquiry and reporting screen. The third column from the left is the length of the data element, or the number of characters it has. The fourth column is for references to appendix B of the user's manual which contains definitions for the codes used here.

6-6. If you have decided what information you need, and which file the data is located in, you are ready to select ad hoc inquiry on the menu and press GO. On the data base inquiry screen, press return once, type SAMS-I (SAMS-2 for the SAMS-2 computers), press return, and type in the ID of the file you want to inquire into (example: AHNO11). Press GO. The ad hoc inquiry and reporting screen will appear. Refer to one of the several ad hoc inquiry and reporting screens that appears in chapters 2 or 3. The first data elements you enter will be the sort sequence. Type in the ad hoc aliases of the data elements in the sequence in which you want the report to be printed. The computer always organizes the sort from lowest to highest. Numbers are lower than letters of the alphabet; blanks (no character at all are lower yet. After the report is sorted by the first ad hoc alias In the Sort Sequence section of the screen, it will be further sorted by the ad hoc alias entered on the second line, and so on.

6-7. The next section of the screen, Data Elements to Select By, is where you specify which records of the file you want on your report. Many of these files contain a thousand records. By making entries on this line, you place restrictions on which of these thousand records will appear on your report. If you choose to enter more than one line of "restrictions," remember that these restrictions are compounded. A record must meet the criteria established by each line before it will appear on the report. If no record meets the criteria of your inquiry, the printer will print a message telling you printing has been aborted.

6-8. The third section of the screen, Data Elements to Appear on the Screen and Report, is used to construct the report. You can create up to an eight column report by entering ad hoc aliases on these lines.

Section 11. Ad Hoc Form Generator

6-9. A weakness of ad hoc inquiry becomes obvious when you begin designing your own reports. The ad hoc inquiry process allows only eight columns of information to be printed on the report. Adding more columns of information can save time that might be spent looking for information on other reports. This problem is solved, for SAMS-2 users, by the ad hoc inquiry form generator. (See figure 3-7 of this guide, and section 5 of your SAMS-2 End User Manual.) The first part of figure 3-7 depicts a completed form generator screen. This form generator screen designed the format of the Inopparts#4 ad hoc report depicted at the second part of figure 3-6. As you can see, the ad hoc inquiry form generator frees you from the restriction of eight columns. Figure 3-6 has 20 columns; it uses 2 rows for each record on the report. Although it takes some time and effort to properly design your own form, once you create it, it is stored inside the computer. You only have to create it once.

6-10. Both SAMS-1 and SAMS-2 have several "preformatted ad hoc reports." These are ad hoc report formats that were predesigned and included in the SAMS- 1 and SAMS-2 software. Use them as they are. See your user's manual.

Section 111. Linking Files

6-11. Another weakness of ad hoc inquiry is that only one file can be queried at a time. The only data elements available for your report are those inside the particular file you are querying. Assume, for example, you wanted to list inoperative equipment by Equipment Category Code (ECC). If you examine the SAMS-2 End User Manual, inoperative equipment is listed in the AHOO11 file. If you scan the AHOO11 file for data elements available for your report, you do not find ECC. ECC is available in a different file, AHO151 file. Under standard ad hoc inquiry procedures, you could not print a report as described above, because ad hoc inquiry can only query one file at a time.

6-12. The SAMS-2 ad hoc "define user files process" solves this problem. Using the procedures of the SAMS-2 End User Manual, chapter 6, files can be linked together, allowing the type of report as described above. The linking process is depicted in the first part of figure 3-4 of this guide. The resulting report is shown in the second part of figure 3-4 This process is not yet available in SAMS-1.

6-13 Both SAMS-1 and SAMS-2 have several "virtual files." These are files that were pre-linked for you and are included in the

SAMS-1 and SAMS-2 software. Use them as they are. See your user's manual.

6-14. A word of caution when using linked or virtual files. When you do an ad hoc inquiry on linked or virtual files, as the computer selects records to appear on the report, the computer will not print a record on the report unless the record appears on BOTH of the linked files. EXAMPLE: If you link the AHOO11 file (Inopequipment file) with the AHN021 file (Inoperative Equipment Parts file), the only records that will appear on any ad hoc inquiry report using these linked files are those records that are BOTH on the AHOO11 file AND-are in the AHO021 file. This will exclude any record on the AHOO11 file for deadlined equipment that has no corresponding part requirement listed on the AHO021 file.

Section IV. Critical Files

6-15. In SAMS-1, the file that contains the information most useful to a manager is the AHN031 file, entitled Work Order Registration. This file contains all the background information on a work order, such as who owns it, where the item is located, how old the job is, current status, etc. This file has most of the information the manager needs, with the exception of task and supply data. Ad hoc inquiry into this file will help the manager find problem work orders; other reports, listed in chapter 2 of this guide, can be used for obtaining information on a specific work order.

6-16. SAMS-2 has four files that contain the information most useful to a manager.

a. The first is the AHOO11 file, entitled Inoperative Equipment. This file has background information on all equipment that is deadlined in the division (brigade, for FSB SAMS-2 sites). The information includes who owns the equipment, where the equipment is located, current status, whether or not the item is a weapon system, etc. It contains everything except parts data for deadlined equipment.

b. The AHO021 file, entitled Inoperative Equipment Parts, is a companion file to the AHOO11 file. This file contains parts and supply information for the items on the AHO0211 file that require parts.

c. The AHOO11 file and the AHO021 file are updated DAILY by ULLS.

d. The AHO051 file, entitled Weekly Work Order, is a file that contains the full details of the entire backlog of all subordinate maintenance units. It has all work orders, high and low priority. Work orders appear on this file regardless of whether or not any reportable or maintenance significant equipment is deadlined.

e. The AHOO61 file, entitled Weekly Work Order Parts, is a companion file to the AHO051 file. It contains parts and supply data for the work orders on the AHO051 file that need parts.

f. The AHO051 file and the AHO061 file are updated WEEKLY, by the weekly diskette transfer from SAMS-1.

Section V. Conclusion

6-17. Ad hoc inquiry is a powerfid tool that fills the gap between the information provided you by a preformatted report and your peculiar needs. Use ad hoc to eliminate the need for any manually prepared, labor intensive reports. Use ad hoc inquiry to sift through mounds of data for you. But do use it. If you are an amateur with computers, don't fear-ad hoc inquiry cannot alter the information on the file. Even if you make a million mistakes, you can't hurt the data on the computer.

Glossary

ACSPT
date accepted support

ADVCD
advice code

AMC LAO
Army Materiel Command Logistics Assistance Office

ANCOC
advanced noncommissioned officer's course

APC
account processing code

ARC
accounting requirements code

ARTEP
Army Training and Evaluation Program

AWAIT INSP
awaiting inspection

BEG BAL
beginning balance

BMPRNO
bumper number

BNCOC
basic noncommissioned officer's course

BSL
bench stock list

BUMPER NO
bumper number

CAN
quantity canceled

CD
code
closed
closed document number designator

CMDTY
commodity

DATE ACPT
date on work order-day accepted

DATE ACPTORD
ordinal date accepted
DATE PREP/DT/PRP
date prepared
DATE REC
date received
DEF
deferred
DI
due-in
DIC
document identifier code
DISSL
quantity due-in to shop stock list
DL
deadlined
DMD CD
demand code
DMMC/DISCOM
division materiel management center
division support command

DOC NO
document number
DOCUNO
document number
DODAAC
DOD activity address code
DS4CD
direct support unit standard supply system code
DTACP
date accepted
DTINP
date inoperative
DTORG
organizational status date
DTSPT
status date, support
ECC
equipment category code
ECP-S
engineering change proposal-software

EEC
error explanation code

EIC
equipment identification code

EIR
equipment improvement recommendations

EQNOUN
equipment noun

EQNSN
equipment national stock number

ERC
equipment readiness code

ESD
estimated shipping date

EVAC WON
work order number assigned to the job by the activity to which an item was evacuated

FAIL CD
failure code

FC
find code

FINAL INSP
final inspection

FSC
federal stock class

ID AND NSN
identifies type number in NSN field, i.e., manufacturer's code, local management control number or national stock number, etc.

INOPANDECE
unique file name

INTNS CUST
intransit customer designate

INTRA SHOP
internal to the shop, i.e., intra-shop work order from automotive section to service section

LASSO
Logistics Automation Systems Support Officer

MAIT
maintenance assistance and instruction team

MALFUNC
malfunction

MEDIA
media and status codes--media gives how status will be provided: i.e., mail, AUTODIN, etc: status indicates whether it will be exception status or all status

MHACCT
man hour accounting

MHEXP
man hours expended

MHPROJ
man hours projected

MHRMN
man hours remaining

MODE
mode of shipment

MOS
miltary occupational specialty

MST
maintenance support team

NICP
national inventory control point

NMCM
not mission capable maintenance

NMCS
not mission capable supply

NSN
national stock number

ORGWON
organizational work order number

OST
order ship time

PARTNOFLD
part number field

PARTNSN
national stock number part

PD
priority designator

PDUN
priority designator unit

POC
point of contact

POCCUST
point contact customer

PROJCD
project code
QDR
quality deficiency
QTY CANC
quantity canceled
QTY DI
quantity due in
QTY EX
quantity excess
QTY ISS
quantity issued
QTY REC
quantity received
QTY REQ
quantity required
RC
recoverability code
RD
recoverability code
RDD
required delivery date
REIMB
reimbursable customer designate
RIC
routing identifier code
RO
requisitioning objective
ROP
reorder point
RPM
repair parts master
RPR QTY ISS
repair quantity issued
RQN
requisition
SAMS
Standard Army Maintenance System
SARSS
Standard Army Retail Supply System

SEC
security classification code
SHOP
shop section code
SHOPCAP
shop capacity
SHOP CD
shop code
SHOPSECCD
shop section code
SIG CD
signal code (ship to, bill to)
SLC
stockage list code
SNT
serial number tracking
SQT
skill qualification test
SRCE
source
SSC
supply status code
SSL
shop stock list
STA DATE
status date
STIC
supply transaction identifer code
STORG
work request status organization
STSPT
work request status code, support
SUP ADRS
supplemental address
SYS
system
TCN
transportation control number
TMDE
test, measurement, and diagnostic equipment

TMSPT
time of status

TRNSDATE
transaction date

TRNSQTY
transaction quantity

TYPE MNT/PMT
type maintenance code

UI
unit of issue

UIC
unit identification code

UICCUS
customer unit identification code

UICCUST
unit identification code customer

UICSUPPORT
unit identification code of the support maintenance activity

ULLS
Unit Level Logistics System

UM
unit of measure

UTIL CD
equipment utilization code

WO AGE
work order age

WO CD
work order code

WO COMP
work orders completed

WO EVAC
work orders evacuated

WO OH
work orders on hand

WO REC
work orders received

WON
work order number

WONEVAC
evacuation work order number

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