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ILS ELEMENT E11  
DESIGN INFLEUNCE

Distribution Program and  
User's Manual  
Version 1.0

APJ 966-676

APJ



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| <p>This User's Manual is the complete user documentation package, and is provided for guidance in using the APJ software. This User's Manual refers to Version 1.0 of the ILS Assessment software. The software permits you to carry out a coherent, orderly and reproducible assessment of ILS Element E11, Design Influence. The software automates the assessment of ILS Element E11, "Design Influence" and follows the requirements of APJ Report 966-224, Structured Design - ILS Review Element E11 - Design Influence. It is designed to assess ILS performance as defined in AR 700-127. ILS software guides the user through the assessment by providing a series of questions which may readily be tailored to the weapon system and life cycle stage.</p> |       |                                                      |                                                                                                                                                    |                                                     |                                    |
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**APJ 966-676**

**ILS ELEMENT E11  
DESIGN INFLUENCE**

**Distribution Program and  
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Version 1.0**

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for

**HQ US AMCCOM  
INTEGRATED LOGISTIC SUPPORT OFFICE  
AMSMC-LSP  
ROCK ISLAND, IL**

by

**AMERICAN POWER JET COMPANY**

**RIDGEFIELD, NJ**

**ST. LOUIS, MO**

**WILLIAMSBURG, VA**

**ARLINGTON, VA**

**April 1991**

## PLEASE READ THIS

This manual is intended to demonstrate the ILS Assessment Software and aid the user in becoming familiar with its operation. The screens illustrated in this manual, are intended as a guide to help the analyst through the software operation and provide a sense of "what it looks like". The following ILS review areas have been made the subject of automation:

- E1 - Maintenance Planning
- E11 - Design Influence
- E12 - Standardization and Interoperability
- E13 - RAM-D
- E14 - Support Management and Analysis
- E15 - Cost Analysis and Funding

Because a single automated procedure with a consistent human interface is the objective of APJ's efforts, the analysis structure, screens and operating procedure are identical for each ILS assessment area.

To avoid cumbersome repetition, we have used E1 Maintenance Planning as illustrative displays for all manuals regardless of subject.

The specific assessment questions for each of the other ILS areas (E1, E11, ... etc.) are set forth in the respective automated screens, reports, and Help. To facilitate review and planning of each assessment task, the Data Flow Diagrams and questions are reproduced in Appendices A and B respectively of the manual corresponding to the given task.

The information contained in this manual is generic, and is weapon system and life cycle phase independent. It is designed to be readily structured for any specific weapon system and life cycle stage, and facilities are provided to tag each pertinent question so that attention may be focused on remunerative issues.

## FOREWORD

This manual supports the automation of the Structured Analysis of Integrated Logistics Support (ILS) functions. It is the complete user documentation package, and is provided solely for guidance in using the APJ software.

The ILS assessment software is a unified and iterative approach to the management of logistic support throughout the life of a Weapon System. It enables the user to review logistic support decisions and, if required, establish corrective actions.

The automated ILS system is being developed by the American Power Jet Co. (APJ), under contract to Hqs AMCCOM. A major goal of the project is to unify the military and contractor approach to the performance of ILS. This approach was validated by AMCCOM, and necessary adjustments were made to attain a fully useful and user-friendly program.

APJ has used Structured Analysis and Design to develop the ILS assessment logic in accordance with AR 700-127 "Integrated Logistic Support".

The Structured Analysis and Design for ILS Element E11 (Design Influence) was presented in APJ Reports 966-212 and 966-224. APJ's task performance has been closely coordinated with the Army Logistic Evaluation Agency and AMCCOM. Their assessment experience has been captured in APJ's logic through continued coordination and review at the working level.

The application software functions as an automated assessment technique and data repository that insures the ILS review is complete and yields actionable results. The assessment logic provides a determinate definition of data requirements, detailed implementation processes, and standard output reports. Additionally, a cost, performance, and schedule risk module has been created for each process.

The ILS assessment software is available through HQ AMCCOM, AMSMC-LSP to program managers, ILS functional area representatives, and review activity personnel. It provides guidance and a means of assessing ILS performance by using the automated assessment procedure. Through the use of this procedure, problems may be quickly identified and resolved before testing and milestone reviews.

The Structured Analysis for ILS Element E11, Design Influence contains the following nine (9) major modules:

1. Design Review Personnel
2. Select Applicable Review Area
3. Assess MANPRINT Influence on Design
4. Safety Influence
5. Assess Technology Influence on Design
6. Assess RAM Influence on Design
7. Assess Interface Influence on Design
8. Assess Economics Influence on Design
9. Assess Program Procedure Influence

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NOTE

A bar in the left hand margin of any paragraph indicates changes from the Beta Test version of this manual.

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This work was performed by a task team for APJ: George Chernowitz, James M. Ciccotti, Scott Lerman, and William Villon. The manual was prepared by Arthur Kreitman; editing and typing support were most competently provided by Barbara Boren and Denise Montanez.

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All comments on this version are welcome and should be addressed to:

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## CHAPTER 1

### INTRODUCTION

#### 1.1 GENERAL.

##### USER'S GUIDE

1.1.1 This User's Manual accompanies Version 1.0 of the ILS Assessment software. The software permits you to carry out a coherent, orderly and reproducible assessment of ILS Element E-11, Design Influence. It is part of an APJ originated structure for addressing all of the ILS areas in AR 700-127.

1.1.2 This is designed to serve activities concerned with assessing ILS performance as defined in AR 700-127 and establishing its cost, schedule, performance and sustainability implications. Provision is made for such assessments at both the overall and detailed levels.

1.1.3 The user is guided through a series of questions which may readily be tailored according to the weapon system characteristics and life cycle stage. The overall set of questions and their organization are provided in Appendices A and B.

1.1.4 An important feature is a fully articulated guide to performing the assessment through a system of help screens, with a hypertext selection menu. This help system may likewise be tailored to the specific weapon system and life cycle stage.

#### 1.2 SCOPE.

##### COVERS AR 700-127

1.2.1 The Department of the Army has a requirement for management control of contractor and government requirements for implementation of AR 700-127, (Integrated Logistic Support). Headquarters AMCCOM has initiated action to structure the review of each ILS element, as to the form of the results and the detailed processes involved. This action is necessary to ensure consistency with current US Army policies, procedures and techniques.

**REVIEW  
SCOPE**

1.2.2 This computer-assisted system will result in uniform development of a logistical database. It addresses all aspects of the ILS assessment elements, as set forth in Department of Army and Department of Defense administrative publications. Furthermore, it will insure uniformity in efforts and products, reproducibility of analyses, and a well defined structure. This system can be coordinated among all participants in the logistic process to arrive at standardized procedures and a common basis for understanding assessment results.

**GENERIC  
MANUAL**

1.2.3 This user's manual is baselined on ILS Assessment Element E1, Maintenance Planning. The examples of screens and reports shown in this manual are intended to illustrate the operation of the software independent of the assessment element. The process titles may be different in the various element, but the operation is unchanged.

**1.3 ILS REVIEW LOGIC AND ORGANIZATION.**

1.3.1 This software automates the assessment of ILS Element E11 - "Design Influence" and follows the requirements of APJ Report 966-224, "Structured Design-ILS Review Element E12-Design Influence".

1.3.2 A detailed Structured Analysis of this review element was developed in APJ report 966-212, "ILS Review Element E11". The detailed Data Flow Diagrams (DFDs) from this Structured Analysis are included as Annex A to this manual, and provide the user with an overview of the logic and approach taken with the analysis.

**1.4 ILS SOFTWARE ARCHITECTURE**

1.4.1 The overall concept of assessment is illustrated in Figure 1-1 and is weapon system and life cycle phase independent. ILS software is designed to guide the user through an assessment by providing a series of questions for the analyst to answer. The analyst must select the equipment to be assessed and enter an identification before

**PROGRAM**

| reaching the main menu. From the main menu the user  
| can either perform an assessment or generate a  
| report using data from previous assessments.

| 1.4.2 During the process of performing an  
| assessment, the user is guided through a series of  
| processes and/or subprocesses that enable him to  
| select a question to be answered. Once a question  
| is selected, the user selects one of several  
| possible responses. After responding to the  
| question the user enters an assessment of the  
| selected answer.

| 1.4.3 From the main menu the user can generate a  
| report of the information that has been entered  
| during a current or previous sessions. The output  
| of the generate report can be directed to a  
| printer, screen or stored as a file.

**1.5 SOFTWARE PROVIDED.**

1.5.1 The ILS Review Element E11 - Design  
Influence software is loaded on 360K 5-1/4 inch  
floppy disks that are provided separately. Refer  
to Chapter 2 for the equipment required to run this  
software.

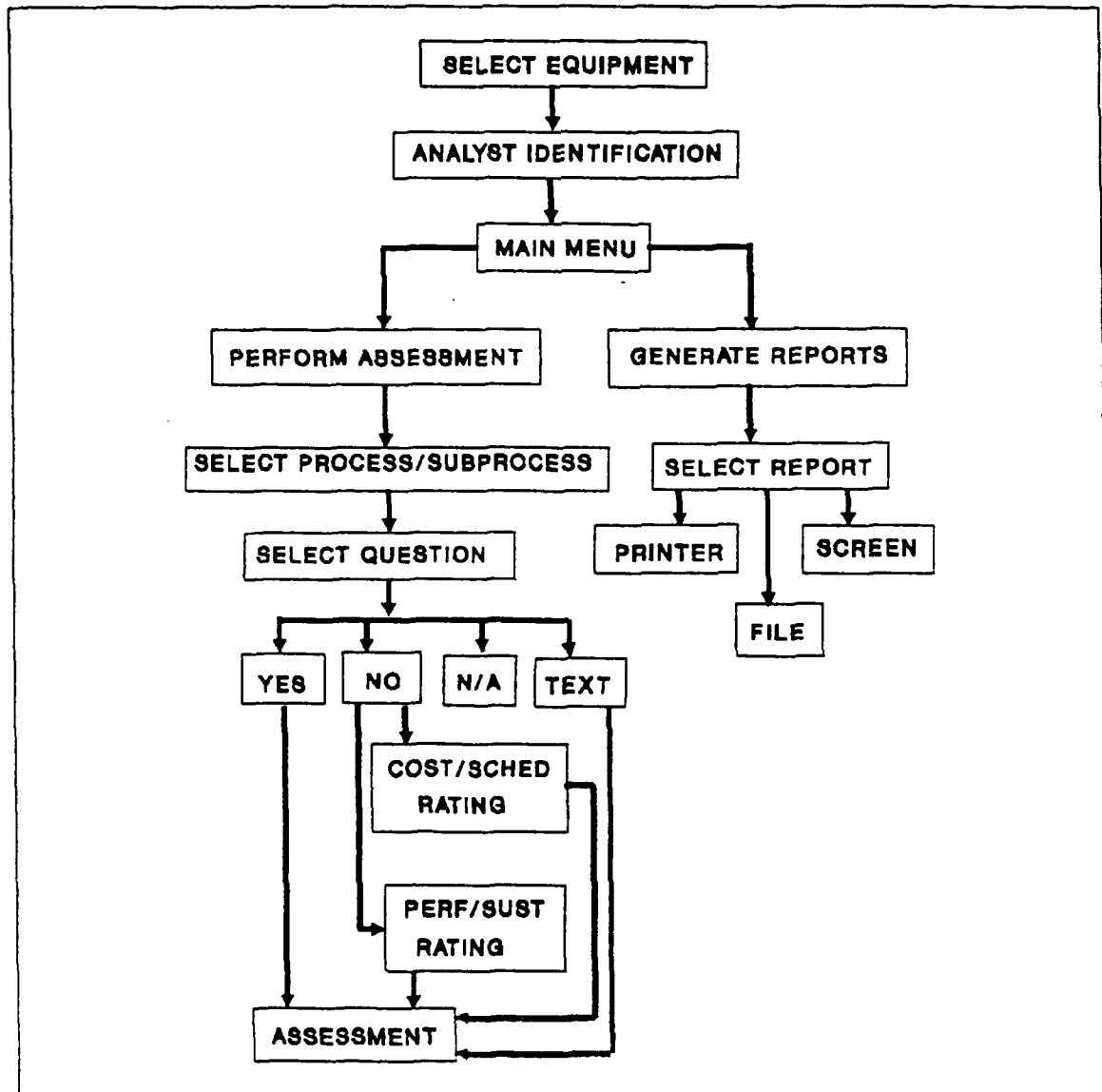


Figure 1-1. ILS Software Architecture

## **CHAPTER 2**

### **SOFTWARE INSTALLATION AND BACKUP**

#### **2.1 GENERAL**

2.1.1 This chapter describes the installation of the executable software and the procedures for making a backup file.

#### **2.2 EQUIPMENT REQUIREMENTS**

2.2.1 To operate the ILS Review Element E1 software, the user must be equipped with at least the following equipment, or its equivalent.

1. IBM-PC-XT with DOS version 3.3 or later and 640K RAM
2. 360K or 1.2MB Floppy Disk Drive and 20MB Hard drive
3. Printer: The following printers are supported by the software printer drivers

#### **HARDWARE**

Epson E/F/J/RX/LQ  
HP Laserjet 500/+/II  
IBM 80 CPS Matrix

---

#### **NOTE**

If your printer is not one of those listed, select the "IBM 80 CPS Matrix" which allows you to tailor the report generator for any printer.

---

**POWER**

**2.3 POWER ON/OFF**

2.3.1 Since each system is slightly different, follow the manufacturer's specific start-up instructions for the personal computer being used to perform the assessment. Make sure that both the Central Processing Unit (CPU) and the Monitor are powered up. Proceed to the system installation section for the instructions on installation of the Logistics Assessment Software.

**2.4 SYSTEM INSTALLATION**

**MAKE  
DUPLICATE  
COPY OF  
DISKS**

2.4.1 This section describes the procedure to load the executable software residing on the floppy disk onto the computer's hard disk and instructions for making copies of the executable program and associated data bases for field use.

2.4.2 Before installing the software for the first time, duplicate the supplied disks. Apply write protect tabs to the original disks and store in a safe place. Use the copy of the software for system installation.

**MODIFY  
CONFIG.SYS**

2.4.3 In order for the ILS software to operate properly, the CONFIG.SYS file must contain the statements: FILES=50 and BUFFERS=20. Add these statements to the indicated files if they do not already exist.

**2.5 INSTALLATION ON A HARD DISK.**

**HARD DISK**

2.5.1 To install the software on a hard disk of the personal computer, perform the following procedures.

1. Turn the computer and monitor on. The computer should boot-up and the hard disk drive prompt (usually C:\) should appear on the screen.
2. Insert the copy of disk 1, ILS Assessment Software, into Drive A.

3. After the C:\ prompt, type "MD C:\ILS" and press <Enter>. This creates an ILS directory on the hard disk and the C:\ prompt will appear.
4. Type "Copy A:\*. \* C:\ILS" and press <Enter>. This copies all of the files from the Logistic Assessment Software floppy disk into the ILS directory on the hard disk.
5. Upon completion of copying the files into the ILS directory, the C:\ prompt appears. Remove the software disk just copied from Drive A and store in a safe place.
6. Insert the copy of each disk provided into Drive A, and repeat steps 4 and 5.

---

#### **IMPORTANT INSTALLATION NOTE**

For ILS Assessment Software, Ell-Design Influence, the QLIST.DBF and QLIST.DBT files have been compressed into a single file named QLIST.COM, to fit on a 360K floppy disk. QLIST.COM is a self-extracting file to install this file and extract the two QLIST files follow these instructions:

- 1) At the C:\ILS prompt type Copy A:\QLIST.COM and press <Enter>. This will copy the compressed file from the floppy disk to the ILS directory.
  - 2) Type QLIST at the C:\ILS prompt and press <Enter>. This causes the execution of the self-extracting archived file to generate two files (QLIST.DBF and QLIST.DBT). Type DEL QLIST.COM and press <Enter> to delete the self-extracting compressed file. It is no longer needed.
  - 3) Continue with the normal installation procedures found in Chapter 2.
-

## **2.6 INSTRUCTIONS FOR FIELD USE.**

### **WORKING COPY**

2.6.1 The following procedures are for copying the ILS assessment software onto a single 1.2MB floppy disk from the computer's hard disk drive. This provides a working copy of the software for use at a field location, or on a laptop computer. Refer to paragraph 2.7 for procedures to copy the ILS assessment software onto 360K floppy disks.

1. Turn the computer and monitor on. The computer should boot-up and the hard disk drive prompt (usually C:\) should appear on the screen.
2. Insert a 1.2 M blank formatted floppy disk into Drive A.
3. After the prompt type "Copy C:\ILS\\*.EXE A:" and press <Enter>. This copies the executable file from the ILS directory onto the disk in Drive A.
4. After the prompt type "Copy C:\ILS\\*.DBT A:" and press <Enter>. This copies the files from the ILS directory onto the disk Drive A.
5. After the prompt type "Copy C:\ILS\\*.DBF A:" and press <Enter>. This copies the files from the ILS directory onto the disk in Drive A.
6. After the prompt type "Copy C:\ILS\\*.MEM A:" and press <Enter>. This copies the files from the ILS directory onto the disk in Drive A.
7. After the prompt type "Copy C:\ILS\\*.RTL A:" and press <Enter>. This copies the files from the ILS directory onto the disk in Drive A.
8. After the prompt type "Copy C:\ILS\\*.TXT A:" and press <Enter>. This copies the files from the ILS directory onto the disk in Drive A.
9. After the prompt type "Copy C:\ILS\\*.OVL A:" and press <ENTER>. This copies the files from the ILS directory onto the disk in Drive A.

10. Remove the disk from Drive A. Label this disk with file identification and date. This is the working copy that can be used at a field location to perform an assessment.

## **2.7 MAKING A FIELD COPY**

### **360K FIELD COPY**

2.7.1 The following procedures are provided for copying the ILS assessment software onto multiple 360K floppy disks from the computer's hard disk drive.

1. Turn the computer and monitor on. The computer should boot-up and the hard disk drive prompt (usually C:\) should appear on the screen.
2. Insert a 360K blank formatted floppy disk into Drive A.
3. After the prompt type "Copy C:\ILS\\*.EXE A:" and press <Enter>. This copies the executable file from the ILS directory onto the disk in Drive A.
4. Remove the disk from Drive A and insert a new 360K blank formatted disk into Drive A. Label this disk with file identification and date.
5. Repeat the procedures of steps 2 through 4 using the following commands to copy the files to the disks.

---

#### **NOTE**

More than one disk is required during the process of copying the following files.

---

- a. After the prompt, type "Copy C:\ILS\\*.DBT  
A:".
- b. After the prompt, type "Copy C:\ILS\\*.DBF  
A:".
- c. After the prompt, type "Copy C:\ILS\\*.MEM  
A:".
- d. After the prompt, type "Copy C:\ILS\\*.OVL  
A:".
- e. After the prompt, type "Copy C:\ILS\\*.TXt  
A:".

## **2.8 SOFTWARE BOOT-UP PROCEDURE**

### **BOOT-UP FROM HARD DRIVE**

2.8.1 The following procedures should be followed each time the software is initiated. Paragraph 2.9 contains procedures for using a hard disk drive, and paragraph 2.10 contains procedures for using a floppy disk.

## **2.9 BOOT-UP SOFTWARE USING HARD DISK**

2.9.1 The following procedure is used for accessing software installed on the computer's hard disk drive.

1. Turn the computer and monitor on. The computer will boot-up and the hard disk drive prompt (usually C:\) will appear on the screen.
2. Type "CD\ILS" and press <Enter> to change to the ILS directory. C:\ILS appears on the screen.
3. Type "ILS" and press <Enter>. The program is now initialized and an introductory screen appears. Refer to Chapter 3 for identification of screens, and Chapter 4 for instructions on performing an assessment.

## **2.10 BOOT-UP PROGRAM USING FLOPPY DISK.**

### **BOOT-UP FROM FLOPPY**

2.10.1 The following procedure is used for accessing the program from a floppy disk.

1. Boot-up the computer with the DOS system disk.
2. Insert program disk into Drive A.

3. At the A drive prompt, type "ILS" and press <enter>. The program is initialized and the ILS screen appears. Refer to Chapter 3 for identification of screens, and Chapter 4 for assessment entering procedures.

## **2.11 CREATING BACK-UP FILES**

2.11.1 At the end of a day, make a back-up copy of the files. The back-up disk may be useful under the following conditions:

- (1) If there is a computer hardware problem and another computer is used.
- (2) Data files are corrupted or become otherwise unusable and restoration of the files is required.
- (3) Transportation of the files from the user site to another management site.

2.11.2 Prior to creating any back-up files that will be restored to another machine, the analyst must ensure that:

1. Formatted disks are available.
2. The machine that the back-up will be restored to has a DOS release version that is equal to or higher than the DOS release version on the back-up machine.
3. The backup and restore .COM files are in a directory specified in the autoexec.bat file path. If not, the complete paths for the back-up and restore must be specified at the time each is processed.

2.11.3 Perform the following procedures to create a back-up disk:

1. At the end of a session, place a formatted disk in Drive A. <Exit> from the ILS program to return to the C:\ILS DOS prompt.
2. Type "BACKUP A:\ILS" and press <Enter> to create a set of back-up disks.

**PRE-  
BACKUP  
INSTRUC-  
TIONS**

**BACKUP  
PROCE-  
DURES**

3. Remove the back-up disks from Drive A, label and date them. No more than two days' worth of files should be maintained on such back-up disks. On the third day, the back-up files made two days ago should be updated and overwritten.

## **2.12 RECOVERY PROCEDURES**

### **RESTORE**

2.12.1 When file restoration is required, place the latest backup disk in drive A and type "RESTORE A:C:\ILS/S" and press <Enter>. The files will be restored.

### **RECOVERY FROM CORRUPTED INDEX FILES**

2.12.2 If one or more index file associated with the data bases becomes corrupted, use the utility program procedures described in paragraph 3.4.3.

---

#### **NOTE**

Re-indexing and packing is recommended at least every 2-3 days.

---

2.12.3 The following is a list of files comprising the ILS Review/Software.

### **FILE NAMES**

---

|             |              |              |
|-------------|--------------|--------------|
| ANALYST.DBF | HELPILS2.TXT | QLIST.DBT    |
| CHOICEN.DBF | ILS.EXE      | REPWELC.MEM  |
| CHOICEN.DBT | ILSYS.OVL    | RESPONSE.DBF |
| CHOICET.DBF | ILSYS2.OVL   | RR_PR1.MEM   |
| CHOICET.DBT | INSTR.TXT    | SESSION.DBF  |
| CHOICEY.DBF | INTRO.TXT    | SUBROC.DBF   |
| CHOICEY.DBT | PROCESS.DBF  | SUMMARY.DBF  |
| EQUIP.DBF   | PROCLOOK.DBF | SUMMARY.DBT  |
| HELPILS.TXT | QLIST.DBF    | WELC.MEM     |

---

## CHAPTER 3

### START-UP OPERATIONS

#### 3.1. INTRODUCTION.

##### BACKGROUND

3.1.1 The U. S. Army ILS Assessment Software is an interactive menu driven system. The software is accessed by completing a series of identification screens prior to accessing the Main Menu. From the Main Menu, you can perform an assessment, generate reports, obtain help, or exit the program. This chapter explains the purpose of each screen and the required response.

#### 3.2 EQUIPMENT IDENTIFICATION SCREEN.

3.2.1 After system initialization, the introductory screen appears. When any key is pressed, the Equipment Identification Screen appears as shown in Figure 3-1.

##### EQUIPMENT SIGN-ON SCREENS

3.2.2 To sign on to the system either enter the equipment ID (20 alphanumeric characters maximum), or press <Enter> to view a list of previously entered equipments. Use the arrow keys to move the highlight bar to the equipment desired. Select the equipment by pressing <Enter>. The Equipment Sign-On Screen is displayed as shown in Figure 3-2.

##### ADDING NEW EQUIPMENT

3.2.3 If the equipment desired is not on the list, select [NEW] and press <Enter>. The equipment Sign-On Screen is displayed as shown in Figure 3-2. Complete each field up to the number of characters indicated in Figure 3-2, and press <Enter> to proceed to the next field. After completion of the last field, press <Enter> and the Analyst Identification Screen appears.

ENTER EQUIPMENT END-ITEM I.D.:  
<RETURN> FOR EQUIPMENT LIST

## SELECT EQUIPMENT

---

[NEW]  
AH-64  
GRENADE  
HELICOPTER  
LASER  
LAUNCHER

---

Figure 3-1 Equipment Identification Screen

**EDIT  
OPTION**

3.2.4 If the Equipment Sign-On Screen has been previously completed, an ACCEPT-EDIT command appears on the bottom of the screen. To change an entry use the arrow keys to highlight the EDIT option and press <Enter>. This places the cursor on the top line and enables the user to make corrections. Use the arrow keys to move the cursor to the line requiring correction. After completion of all corrections use the arrow keys to highlight the ACCEPT option of the ACCEPT-EDIT selection. Press <Enter> to proceed to the next screen.

### 3.3 ANALYST IDENTIFICATION SCREEN

**ANALYST  
SCREENS**

3.3.1 After completion of the Equipment Identification Screen, two Analyst Sign-On Screens must be completed. The first screen requires you to enter your analyst ID as shown in Figure 3-3 (4 Alphanumeric characters maximum).

|                                    |                 |                                 |
|------------------------------------|-----------------|---------------------------------|
| EQUIPMENT IDENTIFICATION.....      | <u>20A</u>      |                                 |
| MILITARY NOMENCLATURE.....         | <u>20A</u>      | INDENTURE LEVEL : <u>1N</u>     |
| COMMON NAME.....                   | <u>20A</u>      |                                 |
| NEXT HIGHER ASSEMBLY.....          | <u>20A</u>      |                                 |
| NEXT HIGHER ASSEMBLY.....          | <u>20A</u>      |                                 |
| NEXT HIGHER ASSEMBLY.....          | <u>20A</u>      |                                 |
| PROGRAM MILESTONE.....             | <u>20A</u>      |                                 |
| DEVELOPMENT PHASE MILESTONE.....   | <u>20A</u>      |                                 |
| ACQUISITION MGMT MILESTONE.....    | <u>20A</u>      |                                 |
| PROJECT MANAGER LAST NAME.....     | <u>15A</u>      | FIRST NAME: <u>15A</u>          |
| PROJECT MANAGER OFFICE SYMBOL..... | <u>15A</u>      | PHONE #: <u>1(999)-999-9999</u> |
| PROJECT MANAGER AUTOVON PHONE..... | <u>999-9999</u> |                                 |
| DISCREPANCY REPORTS TO.....        | <u>20A</u>      |                                 |
| MANUFACTURER.....                  | <u>20A</u>      |                                 |
| NATIONAL STOCK NUMBER.....         | <u>20N</u>      |                                 |

Figure 3-2 Equipment Sign On Screen

---

**NOTE**

Underlined entries in the sample screens indicate user input and character limits.  
A=Alphanumeric; N=Numeric

---

3.3.2 Upon entering your Analyst ID, the Analyst Sign-On Screen appears as shown in Figure 3-4. If an analyst has signed on before, the software recalls the stored information, and this screen appears with the information previously entered. For an ID recognized by the program, the Analyst Sign-On Screen appears with a two choice menu (ACCEPT or EDIT). Use the arrow keys to highlight either the ACCEPT or EDIT choice. Press the <Enter> key to select the desired choice. If the information is correct, choose ACCEPT and the Main Menu is displayed.

ENTER ANALYST ID: 4A

Figure 3-3. Analyst Identification Screen

ANALYST ID.....:4A  
ANALYST FIRST NAME.....:15A  
ANALYST LAST NAME.....:15A  
COMMAND OFFICE SYMBOL.....:15A  
COMMAND OFFICE PHONE.....: 1(999)-999-9999  
AUTOVON PHONE.....:999-9999

Figure 3-4. Analyst Sign On Screen

**EDITING  
EXISTING  
INFORMA-  
TION**

3.3.3 If the information is to be changed, select the EDIT option, the cursor moves to the first field where the user can make changes. Use the arrow keys to move the cursor to any of the fields requiring change. Move the cursor to the last field (AUTOVON PHONE) and press <Enter> to store the changes and access the Main Menu.

**ADDING  
NEW  
ANALYST**

3.3.4 The first time an analyst uses the software, the information on the Analyst Sign-On Screen must be completed. After completion of the last field, an ACCEPT-EDIT command appears on the bottom of the screen. Press <Enter> to accept the information.

### 3.4 MAIN MENU

3.4.1 The Main Menu is shown in Figure 3-5. It enables the user to select one of the options described below. Using the arrow keys; move the highlight bar to the desired option and press <Enter>. At the completion of any option, the program returns to the Main Menu and allows another selection to be made or the session to be terminated.

|            |           |              |              |      |
|------------|-----------|--------------|--------------|------|
| OPERATIONS | UTILITIES | INTRODUCTION | INSTRUCTIONS | EXIT |
|------------|-----------|--------------|--------------|------|

Figure 3-5. Main Menu

#### MAIN MENU OPTIONS

3.4.2 OPERATIONS. Selecting this option displays two choices: PERFORM ASSESSMENT and REPORT GENERATION. The first option allows the analyst to perform an ILS assessment on the equipment that was selected via the Equipment Identification Screen. The second is used to access the Report Generation Module. In this module, the analyst can generate management and technical reports that document the results of the assessment. A further description on performing an assessment is provided in Chapter 4 and report generation is discussed in Chapter 5.

3.4.3 UTILITIES. Two utility programs have been included in this option. The utilities are: REORGANIZE INDEX FILES and PACK DATABASES. These options allow the user to rebuild index files when they become corrupted. Files can become corrupted when the ILS program is ended abnormally. This occurs when the power is shut off without exiting normally (i.e., a power failure, or turning off the computer before exiting ILS). It can also occur when data is written to bad spots on disks (hard or floppy) and then cannot be read again.

3.4.3.1 In order to execute the utility programs, use the arrow keys to place the cursor on the UTILITIES option and press <Enter>. The two options REORGANIZE INDEX FILES and PACK DATABASES will be displayed.

---

**NOTE**

Corrupted files can be recognized by the user when bad or incorrect data is displayed. If the user suspects that any files are corrupted, both utility programs should be run to rebuild the indices. Once that is complete, the user may proceed.

---

**RE-  
ORGANIZING  
INDEX  
FILES**

3.4.3.2 To select REORGANIZE INDEX FILES option, use the down arrow key to highlight REORGANIZE INDEX FILES and press <Enter>. This displays a window on the Main Menu Screen entitled "REINDEXING ALL ILS SYSTEM WORK AREAS". As each database index file is rebuilt, the message within the box "Reindexing: Database (file name.DBF)" and the number of records being reindexed are shown. After all databases have been reindexed, a message line appears below the box stating "ILS System Successfully Reindexed, any <Key> to continue."

**PACKING  
DATABASES**

3.4.3.3 To select the PACK DATABASES option, use the down arrow key to highlight the selection and press <Enter>. This displays a window on the Main Menu screen entitled PACKING ALL ILS SYSTEM WORK AREAS. As each database file is packed, the message within the box reads "Packing: Database (filename.DBF)" and the number of records that are being packed. Upon completion of packing each file, a message line below the window appears stating "ILS System Successfully Packed, any <Key> to continue."

3.4.4 INTRODUCTION. This option displays a brief narrative about the computer-aided ILS Assessment System Software.

3.4.5 INSTRUCTIONS. This option displays suggestions on how to use the application software, and what to expect when operating the software. In addition, system navigation terminology is also displayed.

**TERMI-  
NATING  
THE  
SESSION**

3.4.6 EXIT. This option displays a pull down menu with a YES and NO option. If the YES option is selected, a second menu is displayed to verify the choice to exit the session. If OK is selected, the program exits and returns to the DOS prompt C:\ILS. If NO is selected, you are returned to the Main Menu.

**3.5 OPERATIONS****PERFORM  
ASSESSMENT**

3.5.1 From the Main Menu selection, begin the ILS assessment by selecting the PERFORM ASSESSMENT option under OPERATIONS. This option reveals a list of pertinent topics relating to the ILS Element as shown in Figure 3-6.

---

**NOTE**

The titles shown in the illustrative figures are provided to show the format of the screen. The actual titles of the ILS assessment in use may be different, but the software operation is the same.

---

**ASSESSMENT  
TOPICS**

3.5.2 The Assessment Selection Screen shown in Figure 3-6, indicates the process number and abstract (title) of the assessment topic. This permits the user to choose topics that are pertinent for assessing a Weapon System in its current stage of development. Some topics are further divided into subtopics. Use the arrow keys to move the highlight bar to the desired topic and press <Enter> to select it.

3.5.3 Occasionally, and more often as the equipment assessment progresses, the reviewer will note an asterisk (\*) on the left hand side of an assessment topic. The \* indicates that a process summary has been entered for that topic. It is recommended that the process summary be updated when the reviewer completes most of the questions for the assessment topic.

[SELECT ASSESSMENT AREA]

PROCESS #:

ABSTRACT:

- E1.1 - Review Design Status Assessments for Logistical Impacts
- E1.2 - Review Program Management Documentation for Completeness
- E1.3 - Review Design Status Assessments for Logistical Impacts.
- E1.4 - Review Program Management Documentation for Completeness

Figure 3-6. Assessment Selection

3.5.4 The user can create, review, or edit a process summary by pressing <F3>. The analyst can enter or revise the process summary on the narrative input screen shown in Figure 3-7. After completion of the summary, press <F10> to save. This saves the summary and allows the analyst to make two ratings that assess the Program Cost & Schedule Impact and Equipment Performance & Sustainability Impact.

[ENTER YOUR PROCESS SUMMARY]

[<F10> TO SAVE, <ESC> TO EXIT]

Figure 3-7. Process Summary Screen

**QUESTION  
LIST**

3.5.5 When an assessment topic is selected, either a subprocess list appears as shown in Figure 3-8, or a question list is superimposed on the Assessment Selection Screen. The question list shown in Figure 3-9 displays a list of question numbers.

3.5.6 Displayed to the right of each question is its status; DONE, NOT DONE, or N/A (Not Applicable). The status for DONE or NOT DONE is automatically recorded by the software during any of the previous sessions. If the question was answered during any session, it is labeled DONE. It is labeled NOT DONE if it has never been worked on. A N/A (Not Applicable) is displayed when the analyst, during a previous session, determined that the question was not relevant to the equipment or life cycle phase. Refer to Chapter 4 for procedures on performing the assessment.

**[SELECT ASSESSMENT AREA]**

| SUBPROCESS #: | ABSTRACT:                                                  |
|---------------|------------------------------------------------------------|
| E1.1A1        | - Review Tasks or Functions to Mission Requirements Driven |
| E1.1A2        | - Review Maintenance Principles and Level of Repair        |
| E1.1A3        | - Review Personnel/Non-Personnel Resource Requirements     |
| E1.1A4        | - Review (B) MC use of B Level Army Maintenance Structure  |
| E1.1A6        | - Review Maintenance Task and Level of Repair Trade-Offs   |

Figure 3-8. Subprocess Menu Selection

---

**NOTE**

In some ILS Assessment Elements, another level of subprocesses exists before the question list is displayed. The selection of topics in this sublevel is identical with the subprocess selection.

---

| QUESTION #: | ANSWERED |
|-------------|----------|
| E1.1-01     | NOT DONE |
| E1.1-02     | DONE     |
| E1.1-03     | DONE     |
| E1.1-04     | N/A      |
| .           |          |
| .           |          |
| .           |          |
| .           |          |
| E1.1-17     | NOT DONE |

Figure 3-9. Question Menu

3.5.7 When the question list is displayed, the <F4> key can be used to review the last answer to the question that is highlighted. The information that is displayed is the narrative text portion of the assessment. Use the up and down arrow keys or <Page Up> and <Page Down> keys to scroll through the text. To return to the question list press <ESC>. Either review the answer to another question or select a question to answer.

### 3.6 HELP SYSTEM

3.6.1 The Help System is available to the analyst throughout the operation of the software program. When the analyst presses the <F1> key a help screen is displayed giving information on the particular operation being performed. Use the arrow keys to navigate through the help screens. If additional information is required, press the <F1> again. This displays an ILS Help System Index Selection Screen. Use the arrow keys to highlight the desired selection and press <Enter> to review the Help Screen. Press <ESC> to return to the program.

### 3.7 NAVIGATION.

3.7.1 NAVIGATION MENU. The navigation menu appears at the top of the screen when each question is displayed. It enables the user to answer the question displayed or go to another question. The user accesses the navigation menu by pressing the <ESC> key when the YES/NO/NA choices are displayed beneath the question. The navigation menu becomes activated on the upper portion of the screen as shown in Figure 3-10. This menu gives the user the options defined in Table 3-1.

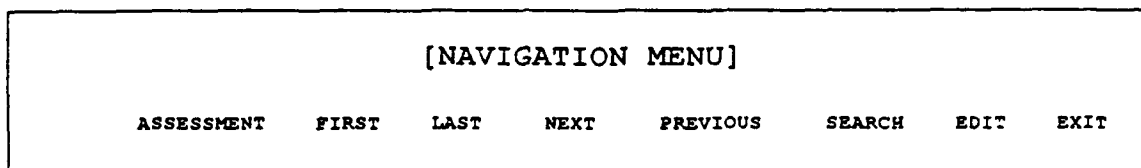


Figure 3-10. Navigation Menu

Table 3-1. Navigation Menu Option Descriptions

**NAVIGATION  
KEYS**

| SELECTION  | FUNCTION                                                                                                                                                                                                                                                                                                       |
|------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| ASSESSMENT | Makes question appearing on the screen active, enabling the analyst to answer it.                                                                                                                                                                                                                              |
| FIRST      | Displays the first question in the assessment.                                                                                                                                                                                                                                                                 |
| LAST       | Displays the last question in the assessment.                                                                                                                                                                                                                                                                  |
| NEXT       | Displays the question after the currently selected question. This option is used to skip a question.                                                                                                                                                                                                           |
| PREVIOUS   | Displays the question before the currently selected question. This option is used for answering a question that was skipped or to modify the last answer.                                                                                                                                                      |
| SEARCH     | Allows the user to either select a specific question by entering the question number, or searching for a question in another topic. The user selects the topic, a subtopic (if available) and then the specific question desired. This option quickly moves you from one part of the question list to another. |
| EDIT       | Allows the user to edit questions previously answered during this session. The user is returned to the question from which edit was invoked. This option may be used if the analyst wants to review the details of a previously answered question without exiting the software.                                |
| EXIT       | Allows the user to return to the Main Menu.                                                                                                                                                                                                                                                                    |

## **CHAPTER 4**

### **ASSESSMENT TECHNIQUES AND PROCEDURES**

#### **4.1 INTRODUCTION**

4.1.1 This chapter provides the user with the procedures required to perform an ILS assessment. It includes procedures on reviewing previous entries, manipulating of the program and generating assessment results.

#### **4.2 HISTORICAL RESULTS**

##### ***HISTORICAL RECORDS***

4.2.1 The ILS Assessment software is designed to generate a historical record of events over the life cycle of a weapon system. The historical record is developed one session at a time.

##### ***CURRENT SESSION***

4.2.2 A session begins when an analyst signs on by selecting a weapon system to assess, and ends when he elects to exit. During that current session, all answers to questions are recorded and saved by the software. Changes can be made only to questions answered during a current session. Questions previously answered, may be answered again without affecting data already in the system. Once the analyst exits a current session, no additional changes can be made.

##### ***AUDIT TRAIL***

4.2.3 As additional sessions are held, the saved records become an audit trail of events that have occurred over the life of the weapon system. This information is used when generating the reports described in Chapter 5.

## **ILS REVIEW ASSESSMENT TECHNIQUES AND PROCEDURES 4-2**

### **4.3 MULTIPLE ANALYST USAGE**

#### **DIFFERENT USERS**

4.3.1 The ILS Assessment software can be used by multiple analysts (one at a time) on one computer. These analysts can assess the same or different aspects of selected equipment. Each analyst can assess the same or a different piece of equipment.

#### **TAGGING RESULTS**

4.3.2 Each time a new user enters the program, he completes the Analyst Identification and Sign-on Screens as described in Chapter 3. The program stores the information for each user in a separate record. Every question answered by the analyst during an assessment is tagged with the analyst identification, equipment identification, date, and time the session started.

### **4.4 PERFORMING AN ASSESSMENT**

#### **MAIN MENU**

4.4.1 The ILS Assessment Program is entered from the Main Menu. Refer to Chapter 3 for procedures on completing the preliminary screens necessary to reach the Main Menu. From the Main Menu, select the PERFORM ASSESSMENT option under OPERATIONS. This brings up the assessment program.

#### **STARTING ASSESSMENT**

4.4.2 Upon selecting the PERFORM ASSESSMENT option from the MAIN MENU, a list of assessment topics is displayed. Each topic has a series of questions which must be answered to perform the assessment. Refer to Appendix B for a complete list of these questions. To select an assessment topic, use the arrow keys to move the highlight bar to the topic desired and press <Enter>. For a further discussion of selecting an assessment topic, see Chapter 3, paragraph 3.5.1 PERFORM ASSESSMENT.

#### **4.5 ANSWERING QUESTIONS**

**QUESTION  
SELECTION**

4.5.1 After selecting a topic, and a subtopic (if required), the related question list is superimposed on the Assessment Selection Screen. To answer a question, use the arrow keys to move the highlight bar to the desired question number and press <Enter>.

---

**NOTE**

The assessment of an answered question can only be changed if it was answered during the current session.

---

4.5.2 The Question Screen is displayed. The Navigation Menu (see Figure 3-9) appears at the top of the Question Screen, and becomes active (e.g., the program is in a "wait state" while the user makes a selection). The default selection is ASSESSMENT.

4.5.3 To begin answering a question, use the arrow keys to highlight and select the ASSESSMENT option. There are two types of questions that may appear during an assessment. The first type requires either a YES, NO or N/A answer, while the second type requires an explanation.

**QUESTION  
RESPONSE**

4.5.4 After reading the question, you can choose to answer it or activate the Navigation Menu by pressing <ESC>. For YES/NO/NA questions, the responses appear below the question and for explanation questions, a box containing a message is displayed.

## ILS REVIEW ASSESSMENT TECHNIQUES AND PROCEDURES 4-4

4.5.5 To answer the first type of question, use the arrow keys to highlight YES, NO, or N/A and press <Enter> to select. Refer to figure 4-1 for an example of how a question screen is displayed.

### NOTE

During the assessment procedure, the <F2> function key is used to toggle between the question and the assessment screens. After toggling back to the question, a series of subquestions that discuss additional points are displayed beneath the main question. The <F10> function key is used to save the assessment, and the <ESC> key is used to abort the assessment and proceed to the next question.

QUESTION NUMBER: E1.1-04

QUESTION: Have the estimated fielded quantities been identified and relayed to the logistician? (Equipment densities have an effect on support methodologies).

Figure 4-1. Sample Question Screen

4.5.6 Questions of the second type require an explanation instead of a YES, NO, or N/A response. The question types are predetermined and cannot be changed by the user.

## ILS REVIEW ASSESSMENT TECHNIQUES AND PROCEDURES 4-5

### 4.6 QUESTIONS WITH "EXPLANATION" ANSWERS

#### EXPLANATION RESPONSE

4.6.1 When an explanation question is selected, a box with the following instructions is displayed at the bottom of a text question screen shown in Figure 4-2.

"<Enter> to proceed, any <Key> next question, <F3> to mark Not Applicable."

4.6.2 ENTERING AN ASSESSMENT. To proceed with your explanation, press <Enter>. The software displays the assessment screen (see Figure 4-3).

4.6.3 NEXT QUESTION. If you decide not to answer the question at this time, press any <Key> other than <Enter> or <F3>. This question is skipped and the software automatically moves to the next question without recording your answer.

QUESTION NUMBER:E1.1-02

QUESTION: How are system designers, maintenance engineers and other logistical element managers communicating on the design and support planning effort?

POINTS TO CONSIDER: Explain mechanism for exchanging information.

Figure 4-2. Text Question Screen

4.6.4 NOT APPLICABLE. If this question is not applicable to the equipment or life cycle phase press <F3>. The software records your answer and automatically moves to the next question.

## ILS REVIEW ASSESSMENT TECHNIQUES AND PROCEDURES 4-6

### 4.7 QUESTIONS WITH "YES" ANSWERS

**YES  
RESPONSE**

4.7.1 If the response is YES, an assessment screen is displayed (Figure 4-3) for you to enter an assessment (e.g., narrative text answering the question). The assessment screen provides you with a word processing capability. On this screen you may type up to 14 pages of information concerning each question. Your assessment may consist of the work planned or accomplished in the project that deals with the main issue of the question, or actions required to comply with the intent of the question. If you would like to see the question while entering the assessment, press <F2>. After typing in the narrative text of your assessment, the results must be saved by pressing the <F10> key.

ENTER YOUR ASSESSMENT

ALERT DATE:   /   /   ACTION DATE:   /   /

Figure 4-3. Example of the Assessment Screen

**ALERT/  
ACTION  
DATE**

4.7.2 After completing the assessment and pressing <F10>, the ALERT DATE and ACTION DATE fields are activated. The ALERT DATE field allows the analyst to record a follow-up date to check on specific actions which should be occurring to resolve a problem. The software only accepts the Alert Date if it is greater than or equal to the session date.

## **ILS REVIEW ASSESSMENT TECHNIQUES AND PROCEDURES 4-7**

4.7.3 The ACTION DATE field permits the analyst to indicate when specific actions must be completed. Action Dates must be greater than or equal to Alert Dates or they will not be accepted by the software. If these dates were completed for the same question during a previous session, the dates appear in the fields provided. To complete or edit the dates, proceed as follows:

- a. Complete these fields using the DD/MM/YYYY format. For a single digit, enter a blank space or zero to the left of the digit. The program accepts only actual dates. If an incorrect date is entered, the computer beeps and returns to the first character in the field.
- b. Once both fields are completed, a verification message is displayed. If the dates are correct, press <Enter>. If not, type "N" and press <Enter>. The cursor then returns to the ALERT DATE field for editing.
- c. There is no requirement to complete these fields. To skip either or both of these fields, press <Enter> once or twice. <Enter> can also be used to accept a field that was previously completed. The verification message is displayed. Press <Enter> to select "Y".

### **4.8 QUESTIONS WITH "NO" ANSWERS**

#### **NO RESPONSE**

4.8.1 If the response to the question is NO, a sequence of screens follows. The first is a Cost and Scheduling Impact Screen which is displayed beneath the question as shown in Figure 4-4. This screen gives you the ability to rate the impact on the Weapon System program by selecting CRITICAL, INTERMEDIATE, or ROUTINE.

## ILS REVIEW ASSESSMENT TECHNIQUES AND PROCEDURES 4-8

SELECT THE RATING FOR THE COST AND SCHEDULE IMPLICATION

CRITICAL

INTERMEDIATE

ROUTINE

Figure 4-4. Cost and Schedule Rating Screen

### SELECT OPTIONS

4.8.2 The user must select one of these options which indicates the time frame for resolving issues that may cause a program schedule slip or cost increase. The CRITICAL option indicates immediate resolution; the INTERMEDIATE option indicates resolution within 30 days; and the ROUTINE option indicates resolution within cost and schedule constraints.

### MILESTONE ASSESSMENT

4.8.3 After selecting one of the options, the Milestone Assessment Screen is displayed (Figure 4-5). On this screen, briefly explain what part of the schedule has been impacted or identify the significant cost driver. To save this information, press <F10>. Following completion of the Milestone Schedule Assessment Screen, the user is asked to rate the Performance and Sustainability Implications.

### PERF. & SUST.

4.8.4 The Performance and Sustainability Rating Screen is shown in Figure 4-6. The rating options are again CRITICAL, INTERMEDIATE, or ROUTINE. After making the appropriate selection, a Milestone Performance Assessment Screen is displayed. The user enters a brief explanation of how system performance and sustainability is impacted by the issues addressed in the question. To save the information, press <F10>.

## ILS REVIEW ASSESSMENT TECHNIQUES AND PROCEDURES 4-9

QUESTION NUMBER: E1.1-03

QUESTION: Have logistical design parameters been incorporated into design analytical efforts?

-----[MILESTONE SCHEDULE IMPACT: ]-----

Figure 4-5. Milestone Assessment Screen

RATE THE PERFORMANCE AND SUSTAINABILITY IMPACT

CRITICAL

INTERMEDIATE

ROUTINE

Figure 4-6. Performance and Sustainability Rating Screen

### ASSESSMENT RESULTS

4.8.5 The next screen displayed is the Enter Assessment Results Screen. The user enters the assessments results stating why the question was answered "NO". If appropriate, the user should enter a list of actions that must be accomplished to correct any deficiency along with a schedule. Press <F10> to save the information and activate the ALERT DATE and ACTION DATE fields prior to answering the next question. Complete the ALERT DATE fields as indicated in paragraph 4.7.2.

### 4.9 QUESTIONS WITH "N/A" ANSWERS

### MARKING A QUESTION N/A

4.9.1 The user may determine during the course of the assessment that a question is not applicable. A question is not applicable when it is deemed not relevant to the equipment under analysis or does not pertain to the current life cycle phase. To make a question not applicable, use the arrow keys

## ILS REVIEW ASSESSMENT TECHNIQUES AND PROCEDURES 4-10

to highlight the N/A choice and press <Enter> to select it. The software records the response and automatically moves to the next question.

### CHANGING THE N/A

4.9.2 If a question was marked not applicable during a previous session (by any analyst assessing the equipment), a message to that effect is displayed, when the question is selected again. If the user determines that the question is now relevant, the N/A response may be changed. Use the <F3> key to return the question to its original state so it can be answered following the procedures described in paragraph 4.5.2

### 4.10 FUNCTION KEYS

#### NAVIGATION KEYS

4.10.1 The function keys are used as an aid to the user. If you would like to go to another question, instead of answering the present question, press <ESC>. This displays the navigation menu.

4.10.2 Use the arrow keys to highlight one of the other options of the Navigation Menu. These options are ASSESSMENT, FIRST, LAST, NEXT, PREVIOUS, SEARCH, EDIT, and EXIT. For a description of these selections, refer to Chapter 3, Table 3-1. To return to the Main Menu from the Navigation Menu, the user may press the <ESC> key or highlight and select the EXIT option.

#### <F10> KEY

4.10.3 <F10> KEY. The <F10> key is available on the Assessment Screen and the two milestone screens. It is used to save the narrative text after the user has finished typing a response.

#### <ESC> KEY

4.10.4 <ESC> KEY. The <ESC> key has several functions. If you press the <ESC> key prior to selecting a response (i.e. YES/NO/NA) to a question, the Navigation Menu becomes active and the arrow keys can be used to make a selection.

4.10.5 Pressing the <ESC> key from the Navigation Menu, returns you to the Main Menu. If you press <ESC> from the Main Menu, you exit the program.

## **ILS REVIEW ASSESSMENT TECHNIQUES AND PROCEDURES 4-11**

4.10.6 Pressing the <ESC> key while filling out the assessment screen aborts the answer and displays the next question. Any narrative that is written is not saved.

### **HELP KEY**

4.10.7 <F1> Key. The <F1> key is the help key. Pressing this key displays information to assist the user on using the software, explaining Menu choices or inputting data for a specific screen, and defining the topics on the Assessment Selection Screen. The help key also displays a help menu. This menu allows the user to get context sensitive help for the listed topics.

4.10.8 WORD PROCESSING FUNCTION KEYS. The keys shown in table 4-1, are used when entering text into the program.

Table 4-1. Word Processing Function Keys

### **WORD PROCESSING KEYS**

| KEY         | FUNCTION                                                                                      |
|-------------|-----------------------------------------------------------------------------------------------|
| <Insert>    | Used to insert a letter, word or phrase between existing words at the location of the cursor. |
| <Delete>    | Used to delete a single letter located under the cursor.                                      |
| <Backspace> | Used to backspace and erase the previous letter.                                              |
| <Caps Lock> | Used to enter all upper case letters.                                                         |
| <Enter>     | Used to create a hard return to move the cursor to the next line.                             |
| <Tab>       | Used to indent text line 5 spaces.                                                            |

## **CHAPTER 5**

### **REPORT GENERATION**

#### **5.1 INTRODUCTION**

5.1.1 This chapter provides the user with the information required to generate reports for the ILS assessment performed. All reports can be output to the screen, printer or file.

#### **5.2 SELECTING A REPORT**

##### **REPORT CHOICES**

5.2.1 The user enters the report generator program from the OPERATIONS option on the Main Menu. After selecting the OPERATIONS option, the user selects the REPORT GENERATOR option. A Reports Welcome Screen is displayed, followed by the Reports Generator Main Menu. The user must press <Enter> on the Report Generation Screen to reach the Main Menu.

5.2.2 The Main Menu has seven report selections and one exit selection. Reports 1 and 2 are executed directly off this menu, while reports 3 through 7 have several submenu options. To select a report, move the highlight bar to the desired choice and press <Enter>. Either a message indicating the report is processing or a window containing a submenu of reports will be displayed. The report options are shown in Figure 5-1 and described in the following paragraphs.

5.2.3 SYSTEM/EQUIPMENT DATA. This option generates a report containing the system/equipment data for this session to the output device selected.

5.2.4 OVERALL ASSESSMENT RESULTS. This option generates a report containing the overall assessment results for the selected equipment to the output device selected.

SYSTEM/EQUIPMENT DATA  
OVERALL ASSESSMENT RESULTS  
ASSESSMENT STATUS  
ASSESSMENT RESULTS  
COST AND SCHEDULE IMPACTS  
PERFORMANCE AND SUSTAINABILITY IMPACTS  
ALERT AND ACTION SCHEDULE DATES  
EXIT TO MAIN ILS MENU

Figure 5-1. Report Generator Main Menu

5.2.5 ASSESSMENT STATUS. This option displays a submenu which allows the user to generate either a WEAPONS SYSTEM CURRENT STATUS REPORT or a CURRENT REVIEW SESSION REPORT. The report is directed to the selected output device.

5.2.6 ASSESSMENT RESULTS. This option displays a submenu which allows the user to select an ASSESSMENT HISTORY REPORT, WEAPONS SYSTEM CURRENT STATUS REPORT or a CURRENT REVIEW SESSION REPORT. The generated report is then directed to the output device selected.

5.2.7 COST AND SCHEDULE IMPACTS. This option displays a submenu which allows the user to select a WEAPONS SYSTEM CURRENT STATUS REPORT, CURRENT REVIEW SESSION REPORT, CRITICALITY ANALYSIS REPORT or a WEAPONS SYSTEM SUMMARY REPORT. The generated report is then directed to the output device selected.

5.2.8 PERFORMANCE AND SUSTAINABILITY IMPACTS. This option displays a submenu which allows the user to select a WEAPONS SYSTEM CURRENT STATUS REPORT, CURRENT REVIEW SESSION REPORT, CRITICALITY ANALYSIS REPORT or a WEAPONS SYSTEM SUMMARY REPORT. The generated report is then directed to the output device selected.

5.2.9 ALERT AND ACTION SCHEDULE DATES. This option displays a submenu which allows the user to select an ALERT DATE ITEMS REPORT or an ACTION DATE ITEMS REPORT. The generated report is then directed to the output device selected.

5.2.10 EXIT TO MAIN ILS MENU. This option terminates the report generator program and returns the user back to the ILS Main Menu.

### **5.3 CHANGING REPORT DESTINATION**

5.3.1 The ILS Assessment software allows the User to output reports to the screen, printer, or file. The mechanism to control the output, device is located on the last line of the Report Menu Screen. Pressing the <F2> key toggles between the three options.

#### **SCREEN OUTPUT**

5.3.2 SCREEN OUTPUT. The default device for Report Output is the Screen or Video Display. After the report module loads, the output device is set to screen. After selecting the output device, select any report from the menu and the software generates it. After several minutes the report is displayed to the screen in a format that is analogous to one of the figures presented in Chapter 5. To scroll through the report use the up & down arrow, page up, page down, home, and end keys. Once you have finished reviewing the report, use <ESC> to exit and return to the Report Menu.

#### **PRINTER OUTPUT**

5.3.3 PRINTER OUTPUT. Press the <F2> key once to change the output device to printer. Make sure that your printer is on-line. Select the report from the Report Menu. After several minutes your report will begin to print out. Depending on the amount of data in the report, it may take a long period of time for the complete report to print out. At the conclusion of the report, a message indicating the report has finished will be displayed.

**FILE  
OUTPUT**

5.3.4 FILE OUTPUT. To change the output device to file, press <F2> twice from the Screen Device option or once from the Printer Device option. When this option is chosen, the file name must be entered. The file name must be eight characters or less. Type the name of the file and press <ENTER>. An .RPT file extension is automatically appended to the name of the file. Choose the Report you wish to generate from the Report Menu and after several minutes a message is displayed indicating the report is complete.

---

**NOTE**

Caution should be used when naming reports, since a newly created report file can overwrite an existing report file with the same name.

---

**REPORT  
FILES**

5.3.5 REPORT FILES. The files created from the File Output option are stored in the directory containing the ILS Program. The file is an ASCII text file devoid of any special control characters. The page layout of the information contained in the file is formatted exactly like the printed output. This file maybe imported into a word processor in order to print out only pertinent parts of the report or redirected to a printer at a later date. For instructions on printing a text file from DOS, consult your DOS manual.

**SYSTEM/  
EQUIPMENT  
DATA  
REPORT****5.4 SYSTEM/EQUIPMENT DATA REPORT**

5.4.1 This report provides information on the system/equipment being assessed (the system/equipment selected on the Equipment Sign-On Screen). Information related to the life cycle phase, project manager and reviewer is included. Refer to Figure 5-2 for an example of this report.

**5.5 OVERALL ASSESSMENT RESULTS REPORT****OVERALL  
ASSESSMENT  
RESULTS  
REPORT**

5.5.1 This report contains the narrative text, Cost and Schedule (C/S), and the Performance and Sustainability (P/S) ratings input for each review topic. The C/S and P/S ratings are CRITICAL, INTERMEDIATE, and ROUTINE. The report is sorted by process number and contains the last assessment for each topic. The topic title and the date of the last assessment are also included. Refer to Figure 5-3 for an example of this report.

**5.6 ASSESSMENT STATUS REPORT****ASSESSMENT  
STATUS  
REPORT**

5.6.1 This report has two options: WEAPON SYSTEM CURRENT STATUS and CURRENT REVIEW SESSION REPORT.

5.6.2 These reports contain seven columns. The columns are labeled: Question, Answer, Review Date, Reviewer Initials, C/S Rating, P/S Rating and Action Date. For the questions answered YES, N/A, or Text, the C/S and P/S ratings will not appear. The Action Date may or may not be completed. Any question not answered will have blank columns to the right of the question number.

5.6.3 CURRENT WEAPON SYSTEM STATUS. This report is used to determine the assessment status of the selected System/Equipment. It lists all questions and shows which are answered. A summary is included at the end of the report which indicates the number of questions answered YES/NO/NA/TEXT, and NOT ANSWERED. Following this is a Criticality Summary for the C/S and P/S showing the total number of questions rated as Critical, Intermediate, or Routine. Refer to Figure 5-4 for an example of this report.

5.6.4 CURRENT REVIEW SESSION. This report has the same format as the CURRENT WEAPONS SYSTEM STATUS REPORT. However, it contains only those questions answered during the current session. Refer to Figure 5-5 for an example of this report.

**ASSESSMENT  
RESULTS  
REPORT****5.7 ASSESSMENT RESULTS REPORT**

5.7.1 This report has three options: ASSESSMENT HISTORY REPORT; WEAPON SYSTEM CURRENT STATUS REPORT; and CURRENT REVIEW SESSION REPORT. All versions of this report are generated in question number order, but list only those questions that have been answered. In addition, each topic (e.g., process) begins on a new page.

5.7.2 All reports start with the question number and question. This is followed by any related subquestion (if applicable). The answer (i.e., YES/NO/NA/TEXT), session date, and reviewer's name follow the question. If a YES response was made, the assessment (narrative text) will follow.

5.7.3 If a NO response was entered, the Cost and Schedule Rating and short explanation of the rating will follow. Next, the Performance and Sustainability rating with its short explanation will appear. The last item is the assessment results (narrative text) which may include any actions.

5.7.4 HISTORICAL REPORT. The historical report prints each question and subquestion once. This is followed by all the answers to the question in descending date order (latest to earliest). The answers to a question are separated by a line, and the questions are separated by a gray band. Refer to Figure 5-6 for an example of this report.

5.7.5 CURRENT WEAPON SYSTEM STATUS. This report has the same format as the historical report. However, it contains only one answer to every question. The last answer entered, regardless of the analyst who entered it, is included. Refer to Figure 5-7 for an example of this report.

5.7.6 CURRENT REVIEW SESSION. This report has the same format as the historical report. However, it contains only the answers input by the analyst performing the assessment during the current session. Refer to Figure 5-8 for an example of this report.

**COST AND  
SCHEDULE  
IMPACTS  
REPORT****5.8 COST AND SCHEDULE IMPACTS REPORTS**

5.8.1 This report has four options: Current Weapon System Status; Current Review Session; Criticality Analysis; and Weapon System Summary.

5.8.2 CURRENT WEAPON SYSTEM STATUS REPORT. This report is sorted by rating. All CRITICAL issues are grouped together followed by INTERMEDIATE and ROUTINE issues. Within each rating group, the questions are broken down by topic where the first question for each topic starts on a new page.

5.8.3 This report is formatted so that question number, question, subquestion (if applicable) appear first. This is followed by the Cost and Schedule Impact (short narrative), and a detailed action field. Refer to Figure 5-9 for an example of this report.

5.8.4 CURRENT REVIEW SESSION. This report has the same format as the Current Weapon System Status Report. However, this report contains only the answers input by the analyst during the current session. Refer to Figure 5-10 for an example of this report.

5.8.5 CRITICALITY ANALYSIS REPORT. This report provides a summary of problem areas for the equipment being assessed. The report is grouped by rating (CRITICAL, INTERMEDIATE, or ROUTINE). It contains all questions whose last answer was NO. Within each grouping, the topics are sorted by topic number and within each topic, the questions are sorted by question number. For each question, the alert and action dates are listed. At the conclusion of each group, the total number of questions within each rating group is provided. At the end of the report, the total number of questions (e.g. TOTAL ACTIONS) counted in the report is provided. Refer to Figure 5-11 for an example of this report.

5.8.6 WEAPON SYSTEM SUMMARY REPORT. This report compares, by topic, the number of questions rated CRITICAL, INTERMEDIATE, and ROUTINE to the number answered satisfactorily and also includes those remaining to be answered.

5.8.7 This report contains seven columns labeled: Process #; Title; Critical; Intermediate; Routine; Satisfactory; and To Do. It is sorted by process number and reflects only the last answer to each question. All topics are included, even if no questions were answered. The report is intended to identify those topics where a large number of problems exist, and therefore require additional effort. Refer to Figure 5-12 for an example of this report.

## 5.9 PERFORMANCE AND SUSTAINABILITY IMPACT REPORTS

### PERFORM- ANCE & SUSTAIN- ABILITY

5.9.1 This report has four options: Current Weapon System Status; Current Review Session; Criticality Analysis; and Weapon System Summary.

5.9.2 CURRENT WEAPON SYSTEM STATUS REPORT. This report is sorted by rating. All CRITICAL issues are grouped together followed by INTERMEDIATE and ROUTINE issues. Within each rating group, the questions are broken down by topic where the first question for each topic starts on a new page. Refer to Figure 5-13 for an example of this report.

5.9.3 This report is formatted so that question number, question and subquestion (if applicable) appear first. This is followed by the Cost and Schedule Impact (short narrative), and a detailed action field.

5.9.4 CURRENT REVIEW SESSION. This report has the same format as the Current Weapon System Status Report. However, it contains only the answered questions entered by the analyst during the current session. Refer to Figure 5-14 for an example of this report.

5.9.5 CRITICALITY ANALYSIS REPORT. This report provides a summary of problem areas for the equipment being assessed. The report is grouped by rating (CRITICAL, INTERMEDIATE, or ROUTINE). It contains all questions whose last answer was NO. Within each grouping, the topics are sorted by topic number and within each topic, the questions are sorted by question number. For each question, the alert and action dates are listed. At the conclusion of each group, the total number of questions within each rating group is provided. At the end of the report, the total number of questions (e.g. TOTAL ACTIONS) counted in this report is provided. Refer to Figure 5-15 for an example of this report.

5.9.6 WEAPON SYSTEM SUMMARY REPORT. This report compares, by topic, the number of questions rated CRITICAL, INTERMEDIATE, and ROUTINE to the number answered satisfactorily and also includes those still remaining to be answered.

5.9.7 This report contains seven columns labeled: Process #; Title; Critical; Intermediate; Routine; Satisfactory; and To Do. It is sorted by process number and reflects only the last answer to each question. All topics are included, even if no questions were answered. The report is intended to identify those topics where a large number of problems exist, and therefore require additional effort. Refer to Figure 5-16 for an example of this report.

## 5.10 ALERT AND ACTION SCHEDULE DATES REPORTS

### ALERT AND ACTION SCHEDULE DATES REPORTS

5.10.1 This report has two options: Alert Date List of Problem Areas; and Action Date List of Problem Areas. The Alert Date List contains a set of follow-up dates related to specific questions, while the Action Date List contains a set of completion dates related to specific actions associated with a question. Each report is a Weapon System Current Status type, but contains only those questions where dates were entered. The questions are sorted by ALERT or ACTION date.

5.10.2 ALERT DATE ITEMS LIST. This report contains all questions where the ALERT DATE has been completed. It is sorted by ALERT DATE from the oldest to the newest. There are six columns in the report that are labeled: Question, Answer, C/S Rating, P/S Rating, Alert Date, and Days Left. The report contains YES/NO/TEXT answers. For YES and TEXT answers, the ratings are blank. The Days Left column indicates the number of days remaining from the Report Date before a follow-up is required. A negative number in this column indicates that the follow-up date has passed. Refer to Figure 5-17 for an example of this report.

5.10.3 ACTION DATE ITEMS LIST. This report contains all questions where the ACTION DATE has been completed. It is sorted by ACTION DATE from the oldest to the newest. There are six columns in the report that are labeled: Question, Answer, C/S Rating, P/S Rating, Alert Date, and Days Left. The report contains YES/NO/TEXT answers. For YES and TEXT answers, the ratings are blank. The Days Left column indicates the number of days remaining from the Report Date before all actions associated with the question must be completed. A negative number in this column indicates that the actions have not been completed. Refer to Figure 5-18 for an example of this report.

PAGE #: 1

10/12/90

ASSESSMENT OF ILS MAINTENANCE PLANNING  
REVIEW MANAGEMENT REPORT

|                                   |                   |
|-----------------------------------|-------------------|
| EQUIPMENT IDENTIFICATION:         |                   |
| SYSTEM:                           | XX XX XXXXXX      |
| SUBSYSTEM:                        | Not Subsystem     |
| MILESTONE IDENTIFICATION:         |                   |
| LOCAL ILS:                        | XXX               |
| AMC PAM 70-20:                    | XXX               |
| DA PAM 700-26:                    | X                 |
| PROJECT MANAGER POINT OF CONTACT: |                   |
| COMMAND/OFFICE:                   | XXXXXXXXX         |
| CONTACT NAME:                     | XXX X., XXXX      |
| CONTACT PHONE:                    | 1 (XXX) -XXX-XXXX |
| REVIEWER REFERENCES:              |                   |
| COMMAND/OFFICE:                   | XXXX              |
| REVIEWER NAME:                    | XXXXX, XXXXXX     |
| PHONE:                            | 1 (XXX) -XXX-XXXX |
| REVIEW DATE:                      | XX/XX/XX          |
| AUTOVON PHONE:                    |                   |
| SEND REPORT TO: XXXX XXXXXX       |                   |
| NOTES:                            |                   |

Figure 5-2. System/Equipment Data Report

**OVERALL ASSESSMENT RESULTS  
WEAPON SYSTEM CURRENT STATUS**

**ASSESSMENT OF MAINTENANCE PLANNING**

**EQUIPMENT ID: XXXXXX**

**MILESTONE: XXX**

**Page #1**

**REPORT DATE: XX/XX/XX**

|      |                                         |                         |                 |                |
|------|-----------------------------------------|-------------------------|-----------------|----------------|
| E1.1 | Review Design for Logistical<br>Impacts | Review Date<br>XX/XX/XX | C/S<br>INTERMED | P/S<br>ROUTINE |
|------|-----------------------------------------|-------------------------|-----------------|----------------|

Summary

|        |                                                      |                         |                 |                 |
|--------|------------------------------------------------------|-------------------------|-----------------|-----------------|
| E1.3A1 | Review Tasks or Functions to<br>Mission Requirements | Review Date<br>XX/XX/XX | C/S<br>CRITICAL | P/S<br>CRITICAL |
|--------|------------------------------------------------------|-------------------------|-----------------|-----------------|

Summary

|        |                                              |                         |     |     |
|--------|----------------------------------------------|-------------------------|-----|-----|
| E1.4A1 | Review (P)MAC for Accuracy &<br>Completeness | Review Date<br>XX/XX/XX | C/S | P/S |
|--------|----------------------------------------------|-------------------------|-----|-----|

Summary

|        |                                                          |             |     |     |
|--------|----------------------------------------------------------|-------------|-----|-----|
| E1.5A1 | Assess Reliability Centered<br>Maintenance (RCM) Results | Review Date | C/S | P/S |
|--------|----------------------------------------------------------|-------------|-----|-----|

Summary

**Figure 5-3. Overall Assessment Results Report**

WEAPON SYSTEM CURRENT ILS STATUS  
ASSESSMENT OF ILS MAINTENANCE PLANNING

EQUIPMENT ID: XXXXXX

MILESTONE: XXX

PAGE #: 1

REPORT DATE: XX/XX/XX

| QUESTION | ANSWER                                                      | REVIEW<br>DATE | INIT | COST & SCHED<br>RATING | PERF & SUST<br>RATING | ACTION<br>DATE |
|----------|-------------------------------------------------------------|----------------|------|------------------------|-----------------------|----------------|
| E1.1     | Review Design for Logistical Impacts                        |                |      |                        |                       |                |
| E1.1-01  |                                                             |                |      |                        |                       |                |
| E1.1-02  |                                                             |                |      |                        |                       |                |
| E1.1-03  | NO                                                          | XX/XX/XX       | AA   | INTERMED               | INTERMED              | XX/XX/XX       |
| E1.1-04  |                                                             |                |      |                        |                       |                |
| E1.1-05  | TEXT                                                        | XX/XX/XX       | BB   | ---                    | ---                   | / /            |
| E1.1-06  |                                                             |                |      |                        |                       |                |
| E1.1-07  |                                                             |                |      |                        |                       |                |
| E1.1-08  |                                                             |                |      |                        |                       |                |
| E1.1-09  |                                                             |                |      |                        |                       |                |
| E1.1-10  |                                                             |                |      |                        |                       |                |
| E1.1-11  |                                                             |                |      |                        |                       |                |
| E1.1-12  |                                                             |                |      |                        |                       |                |
| E1.2     | Review Program Management Documentation for<br>Completeness |                |      |                        |                       |                |
| E1.2-01  |                                                             |                |      |                        |                       |                |
| E1.2-02  |                                                             |                |      |                        |                       |                |
| E1.2-03  | YES                                                         | XX/XX/XX       | AA   | ---                    | ---                   | / /            |
| E1.2-04  |                                                             |                |      |                        |                       |                |
| E1.2-05  | TEXT                                                        | XX/XX/XX       | BB   | ---                    | ---                   | / /            |
| E1.2-06  | NO                                                          | XX/XX/XX       | CC   | ROUTINE                | ROUTINE               | XX/XX/XX       |
| E1.2-07  |                                                             |                |      |                        |                       |                |
| E1.2-08  |                                                             |                |      |                        |                       |                |
| E1.2-09  |                                                             |                |      |                        |                       |                |
| E1.2-10  |                                                             |                |      |                        |                       |                |
| E1.2-11  |                                                             |                |      |                        |                       |                |
| E1.2-12  |                                                             |                |      |                        |                       |                |
| E1.3A1   | Review Tasks or Functions to Mission Requirements           |                |      |                        |                       |                |
| E1.3A-01 |                                                             |                |      |                        |                       |                |
| E1.3A-02 |                                                             |                |      |                        |                       |                |
| E1.3A-03 |                                                             |                |      |                        |                       |                |
| E1.3A-04 |                                                             |                |      |                        |                       |                |
| E1.3A-05 |                                                             |                |      |                        |                       |                |

Figure 5-4. Assessment Status Report (Weapon System  
Current Status) Sheet 1 of 2

**ILS REVIEW**

**REPORT GENERATION**

**5-14**

**WEAPON SYSTEM CURRENT ILS STATUS  
ASSESSMENT OF ILS MAINTENANCE PLANNING**

**EQUIPMENT ID: XXXXXX**

**MILESTONE: XXX**

**PAGE #: XX**

**REPORT DATE: XX/XX/XX**

**REVIEW STATUS SUMMARY**

|              |            |
|--------------|------------|
| YES          | 10         |
| NO           | 8          |
| N/A          | 4          |
| TEXT         | 2          |
| UNANSWERED   | 198        |
| <b>TOTAL</b> | <b>222</b> |

**CRITICALITY SUMMARY**

|                                | <b>CRITICAL</b> | <b>INTERMEDIATE</b> | <b>ROUTINE</b> |
|--------------------------------|-----------------|---------------------|----------------|
| Cost and Schedule              | 4               | 3                   | 1              |
| Performance and Sustainability | 3               | 3                   | 2              |
| <b>Total</b>                   | <b>7</b>        | <b>6</b>            | <b>3</b>       |

**Figure 5-4. Assessment Status Report (Weapon System  
Current Status) Sheet 2 of 2**

CURRENT REVIEW SESSION REPORT  
ASSESSMENT OF ILS MAINTENANCE PLANNING

EQUIPMENT ID: XX XX XXXXX  
REVIEW DATE: XX/XX/XX  
MILESTONE: XXX

REVIEWER: X. XXXXXX  
OFFICE SYMBOL: XXXXX

PAGE #: 1

XX/XX/XX

| QUESTION  | ANSWER                                                        | COST & SCHED<br>RATING | PERF & SUST<br>RATING | ACTION<br>DATE |
|-----------|---------------------------------------------------------------|------------------------|-----------------------|----------------|
| E1.6A3    | Review Depot Support Plans                                    |                        |                       |                |
| E1.6A3-01 | YES                                                           | ---                    | ---                   | / /            |
| E1.6A3-02 | YES                                                           | ---                    | ---                   | XX/XX/XX       |
| E1.6A3-03 | N/A                                                           | ---                    | ---                   | ---            |
| E1.6A4    | Review ISSA, HNS, CLS, ICLS Implementation Plans              |                        |                       |                |
| E1.6A4-01 | N/A                                                           | ---                    | ---                   | ---            |
| E1.6A4-02 | N/A                                                           | ---                    | ---                   | ---            |
| E1.6A6    | Review Warranty Implementation Plans                          |                        |                       |                |
| E1.6A6-01 | NO                                                            | CRITICAL               | INTERMEDIATE          | XX/XX/XX       |
| E1.6A7    | Review SDC Plans and Execution                                |                        |                       |                |
| E1.6A7-01 | NO                                                            | INTERMEDIATE           | ROUTINE               | XX/XX/XX       |
| E1.7A1    | Review Sub-Assessments for Overall Consistency                |                        |                       |                |
| E1.7A1-02 | NO                                                            | CRITICAL               | CRITICAL              | XX/XX/XX       |
| E1.7A4    | Identify Actions Requiring Further Analysis<br>for Resolution |                        |                       |                |
| E1.7A4-01 | YES                                                           | ---                    | ---                   | XX/XX/XX       |

Figure 5-5. Assessment Status Report (Current Review  
Session Report)

HISTORICAL ASSESSMENT RESULTS  
ASSESSMENT OF MAINTENANCE PLANNING

EQUIPMENT ID: XXXXXX

MILESTONE: XXX

PAGE #: XX

REPORT DATE: XX/XX/XX

PROCESS E1.1

Review Design for Logistical Impacts

## ----- QUESTION-----

QUESTION #: E1.1-01

Do design specifications establish logistical requirements (i.e., maintainability, reliability) to meet system readiness objectives and the operational scenarios?

ANSWER: YES    SESSION DATE: XX/XX/XX    REVIEWER: X. XXXXX

## -----ASSESSMENT-----

ANSWER: NO    SESSION DATE: XX/XX/XX    REVIEWER: X. XXXXX

COST & SCHEDULE RATING: ROUTINE  
COST & SCHEDULE IMPACT:

PERFORMANCE & SUSTAINABILITY RATING: ROUTINE  
PERFORMANCE AND SUSTAINABILITY IMPACT:

## -----ACTION-----

Figure 5-6. Assessment Results Report (Assessment History)

*ILS REVIEW*

*REPORT GENERATION*

*5-17*

ASSESSMENT RESULTS  
WEAPON SYSTEM CURRENT STATUS  
ASSESSMENT OF MAINTENANCE PLANNING

EQUIPMENT ID: XXXXXX

MILESTONE: XXX

PAGE #: XX

REPORT DATE: XX/XX/XX

PROCESS E1.1

Review Design for Logistical Impacts

----- QUESTION-----

QUESTION #: E1.1-02

How are system designers, maintenance engineers, and other logistical element managers communicating on the design and support planning effort?

-----SUBQUESTION-----

- o Explain mechanism for exchanging information.

ANSWER: TEXT    SESSION DATE: XX/XX/XX    REVIEWER: X. XXXXX

-----ASSESSMENT-----

Figure 5-7. Assessment Results Report (Weapons System Current Status)

**ILS REVIEW**

**REPORT GENERATION**

**5-18**

**ASSESSMENT RESULTS  
CURRENT REVIEW SESSION  
ASSESSMENT OF MAINTENANCE PLANNING**

**EQUIPMENT ID: XXXXXX**

**MILESTONE: XXX**

**PAGE #: XX**

**REPORT DATE: XX/XX/XX**

**PROCESS E1.1**

**Review Design for Logistical Impacts**

----- QUESTION-----

QUESTION #: E1.1-02

How are system designers, maintenance engineers, and other logistical element managers communicating on the design and support planning effort?

-----

**ANSWER: TEXT    SESSION DATE: XX/XX/XX    REVIEWER: X. XXXXX**

-----ASSESSMENT-----

Figure 5-8. Assessment Results Report (Current Review Session)

**COST AND SCHEDULE IMPACT REPORT  
WEAPON SYSTEM CURRENT STATUS  
ASSESSMENT OF ILS MAINTENANCE PLANNING**

EQUIPMENT ID: XXXXXX  
ILS MILESTONE: XXX

OFFICE SYMBOL: XXXXX

Page #: 1

Report Date: XX/XX/XX

**CRITICAL ISSUE**

E1.4A1 Review (P)MAC for Accuracy & Completeness  
QUESTION #: E1.4A1-02

----- QUESTION-----

Do the functional group codes adequately reflect the system from a top-down breakdown?

-----SUBQUESTION-----

-Identify functional groups that have placed at incorrect level in the breakdown. -How will this functional group be placed at the correct level? (The End Item Family Tree is useful in performing this analysis.)

**COST AND SCHEDULE IMPACT**

(A three line text field that includes a short explanation of the cost and/or schedule impact.)

-----ACTION-----

Figure 5-9. Cost and Schedule Impacts Report (Weapons System Current Status)

COST AND SCHEDULE IMPACT REPORT  
CURRENT REVIEW SESSION  
ASSESSMENT OF ILS MAINTENANCE PLANNING

EQUIPMENT ID: XXXXXX  
ILS MILESTONE: XXX

OFFICE SYMBOL: XXXXX

Page #: 1

Report Date: XX/XX/XX

CRITICAL ISSUE

PROCESS # :E1.4A03      Review Compatibility of (P)MAC  
QUESTION #: E1.4A1-02      with (B)MC

----- QUESTION-----  
Have adequate and accurate task times been input into the  
(P)MAC?

-----SUBQUESTION-----  
-Specify whether the results of testing and demonstrations  
contradict these values. -Identify the reason the times in  
(P)MAC and the actual times are different (e.g., training,  
publications etc.)

---

COST AND SCHEDULE IMPACT  
81 MM Mortar      Question E1.4A03-03  
XX/XX/XX      C&S Rating: Critical  
Session #X Analyst: XXX XXXX

-----ACTION-----

Figure 5-10. Cost and Schedule Impacts Report (Current  
Review Session Report)

COST AND SCHEDULE IMPACT REPORT  
CRITICALITY ANALYSIS REPORT  
ASSESSMENT OF ILS MAINTENANCE PLANNING

EQUIPMENT ID: XXXXXX

ILS MILESTONE: XXX

LAST SESSION DATE: XX/XX/XX

REVIEWER: X. XXXXXX

Page #: 1

Report Date: XX/XX/XX

## -----CRITICAL-----

E1.4A1            Review (P)MAC for Accuracy & Completeness  
E1.4A1.02            ALERT DATE:            ACTION DATE:

E1.6A6            Review Warranty Implementation Plans  
E1.6A6-01            ALERT DATE: XX/XX/XX    ACTION DATE: XX/XX/XX

E1.7A1            Review Sub-Assessments for Overall Consistency  
E1.7A1-02            ALERT DATE: XX/XX/XX    ACTION DATE: XX/XX/XX

TOTAL CRITICAL ACTIONS:    3

## -----INTERMEDIATE-----

E1.1            Review Design for Logistical Impacts.  
E1.1-07            ALERT DATE: XX/XX/XX    ACTION DATE: XX/XX/XX

E1.4A1            Review (P)MAC for Accuracy & Completeness  
E1.4A1-03            ALERT DATE: XX/XX/XX    ACTION DATE: XX/XX/XX

E1.6A7            Review SDC Plans and Execution.  
E1.6A7-01            ALERT DATE: XX/XX/XX    ACTION DATE: XX/XX/XX

TOTAL INTERMEDIATE ACTIONS:    3

## -----ROUTINE-----

E1.2            Review Program Management Documentation for  
Completeness  
E1.2-07            ALERT DATE: XX/XX/XX    ACTION DATE: XX/XX/XX

TOTAL ROUTINE ACTIONS:    3

SUMMARY

TOTAL ACTIONS:    7

Figure 5-11. Cost and Schedule Impacts (Criticality  
Analysis)

COST AND SCHEDULE SUMMARY REPORT  
ASSESSMENT OF MAINTENANCE PLANNING

EQUIPMENT ID: XXXXXX  
LAST SESSION DATE: XX/XX/XX

ILS MILESTONE: XXX  
REVIEWER: X. XXXXXX

Page #: 1

Report Date: XX/XX/XX

| Process # | Title                                                    | Crit | Int | Rout | Sat | To<br>Do |
|-----------|----------------------------------------------------------|------|-----|------|-----|----------|
| E1.1      | Review Design for Logistical Impacts.                    | 0    | 1   | 0    | 1   | 14       |
| E1.2      | Review Program Management Documentation for Completeness | 0    | 0   | 1    | 5   | 3        |
| E1.3A1    | Review Tasks or Functions to Mission Requirements        | 0    | 0   | 0    | 0   | 11       |
| E1.3A2    | Review Maintenance Principles and Level of Repair.       | 0    | 0   | 0    | 0   | 11       |
| E1.3A3    | Review Personnel/Non-Personnel Resource Requirements     | 0    | 0   | 0    | 0   | 11       |
| E1.3A4    | Review (B) MC use of 3 Level Army Maintenance Structure  | 0    | 0   | 0    | 0   | 2        |
| E1.3A5    | Review Host Nation Support (HNS), Interservice Support   | 0    | 0   | 0    | 0   | 15       |
| E1.3A6    | Review Maintenance Task and Level of Repair Trade-Offs   | 0    | 0   | 0    | 0   | 2        |
| E1.3A7    | Assess Achievement of SPO and Supportability Objectives  | 0    | 0   | 0    | 0   | 3        |

Figure 5-12. Cost and Schedule Impacts (Weapon System Summary)

**PERFORMANCE AND SUSTAINABILITY REPORT  
WEAPON SYSTEM CURRENT STATUS  
ASSESSMENT OF ILS MAINTENANCE PLANNING**

EQUIPMENT ID: XXXXXX  
ILS MILESTONE: XXX

OFFICE SYMBOL: XXXXX

Page #: 1

Report Date: XX/XX/XX

**CRITICAL ISSUE**

E1.4A1 Review (P)MAC for Accuracy & Completeness  
QUESTION #: E1.4A1-02

----- QUESTION-----

Do the functional group codes adequately reflect the system from a top-down breakdown?

-----SUBQUESTION-----

-Identify functional groups that have placed at incorrect level in the breakdown. -How will this functional group be placed at the correct level? (The End Item Family Tree is useful in performing this analysis.)

---

---

**COST AND SCHEDULE IMPACT**

(This is a three line text field in which a short explanation of the performance and sustainability impact is included.)

-----ACTION-----

Figure 5-13. Performance and Sustainability Impacts Report  
(Weapons System Current Status)

**ILS REVIEW**

**REPORT GENERATION**

**5-24**

**PERFORMANCE AND SUSTAINABILITY REPORT  
CURRENT REVIEW SESSION  
ASSESSMENT OF ILS MAINTENANCE PLANNING**

EQUIPMENT ID: XXXXXX  
ILS MILESTONE: XXX

OFFICE SYMBOL: XXXXX

Page #: 1

Report Date: XX/XX/XX

**CRITICAL ISSUE**

E1.4A1            Review (P)MAC for Accuracy & Completeness  
QUESTION #: E1.4A1-02

----- QUESTION-----

Do the functional group codes adequately reflect the  
system from a top-down breakdown?

-----SUBQUESTION-----

-Identify functional groups that have placed at incorrect  
level in the breakdown. -How will this functional group be  
placed at the correct level? (The End Item Family Tree is  
useful in performing this analysis.)

---

**COST AND SCHEDULE IMPACT**

MS\_SCHED\_M -the long character field for MS\_SCHED M.  
Information about this record: qn=E1.4A1-02,  
sn=9007181406.

-----ACTION-----

Figure 5-14. Performance and Sustainability Impacts Report  
(Current Review Session)

PERFORMANCE AND SUSTAINABILITY REPORT  
CRITICALITY ANALYSIS REPORT  
ASSESSMENT OF ILS MAINTENANCE PLANNING

EQUIPMENT ID: XXXXXX  
LAST SESSION DATE: XX/XX/XX

ILS MILESTONE: XXX  
REVIEWER: X. XXXXXX

Page #: 1

Report Date: XX/XX/XX

-----CRITICAL-----  
E1.4A1            Review (P)MAC for Accuracy & Completeness  
E1.4A1-02            ALERT DATE:            ACTION DATE:  
  
E1.6A6            Review Warranty Implementation Plans  
E1.6A6-01            ALERT DATE: XX/XX/XX    ACTION DATE: XX/XX/XX  
  
E1.7A1            Review Sub-Assessments for Overall Consistency  
E1.7A1-02            ALERT DATE: XX/XX/XX    ACTION DATE: XX/XX/XX  
  
TOTAL CRITICAL ACTIONS:    3

-----INTERMEDIATE-----  
E1.1            Review Design for Logistical Impacts.  
E1.1-07            ALERT DATE: XX/XX/XX    ACTION DATE: XX/XX/XX  
  
E1.4A1            Review (P)MAC for Accuracy & Completeness  
E1.4A1-03            ALERT DATE: XX/XX/XX    ACTION DATE: XX/XX/XX  
  
E1.6A7            Review SDC Plans and Execution.  
E1.6A7-01            ALERT DATE: XX/XX/XX    ACTION DATE: XX/XX/XX  
  
TOTAL INTERMEDIATE ACTIONS:    3

-----ROUTINE-----  
E1.2            Review Program Management Documentation for  
Completeness  
E1.2-07            ALERT DATE: XX/XX/XX    ACTION DATE: XX/XX/XX  
  
TOTAL ROUTINE ACTIONS:    3

SUMMARY

TOTAL ACTIONS:    7

Figure 5-15. Performance and Sustainability Impacts  
(Criticality Analysis)

PERFORMANCE AND SUSTAINABILITY SUMMARY REPORT  
ASSESSMENT OF MAINTENANCE PLANNING

EQUIPMENT ID: XXXXXX  
LAST SESSION DATE: XX/XX/XX

ILS MILESTONE: XXX  
REVIEWER: X. XXXXXX

Page #: 1

Report Date: XX/XX/XX

| Process # | Title                                                    | Crit | Int | Rout | Sat | To<br>Do |
|-----------|----------------------------------------------------------|------|-----|------|-----|----------|
| E1.1      | Review Design for Logistical Impacts.                    | 0    | 1   | 0    | 1   | 14       |
| E1.2      | Review Program Management Documentation for Completeness | 0    | 0   | 1    | 5   | 3        |
| E1.3A1    | Review Tasks or Functions to Mission Requirements        | 0    | 0   | 0    | 0   | 11       |
| E1.3A2    | Review Maintenance Principles and Level of Repair.       | 0    | 0   | 0    | 0   | 11       |
| E1.3A3    | Review Personnel/Non-Personnel Resource Requirements     | 0    | 0   | 0    | 0   | 11       |
| E1.3A4    | Review (B) MC use of 3 Level Army Maintenance Structure  | 0    | 0   | 0    | 0   | 2        |
| E1.3A5    | Review Host Nation Support (HNS), Interservice Support   | 0    | 0   | 0    | 0   | 15       |
| E1.3A6    | Review Maintenance Task and Level of Repair Trade-Offs   | 0    | 0   | 0    | 0   | 2        |
| E1.3A7    | Assess Achievement of SRO and Supportability Objectives  | 0    | 0   | 0    | 0   | 3        |

Figure 5-16. Performance and Sustainability Impacts  
(Weapon System Summary)

**ILS REVIEW**

**REPORT GENERATION**

**5-27**

**ACTION DATE LIST OF PROBLEM AREAS  
ASSESSMENT OF ILS MAINTENANCE PLANNING**

**EQUIPMENT ID: XXXXXX  
ILS MILESTONE: XXX**

**OFFICE SYMBOL: XXXXX**

**Page #: 1**

**Report Date: XX/XX/XX**

| QUESTION  | ANSWER | COST & SCHED<br>RATING | PERF & SUST<br>RATING | ALERT<br>DATE | DAYS<br>LEFT |
|-----------|--------|------------------------|-----------------------|---------------|--------------|
| E1.7A1-02 | NO     | CRITICAL               | CRITICAL              | XX/XX/XX      | -98          |
| E1.6A7-01 | NO     | INTERMEDIATE           | ROUTINE               | XX/XX/XX      | -97          |
| E1.1-07   | NO     | INTERMEDIATE           | INTERMEDIATE          | XX/XX/XX      | -69          |
| E1.6A6-01 | NO     | CRITICAL               | INTERMEDIATE          | XX/XX/XX      | 228          |
| E1.6A3-02 | YES    | ---                    | ---                   | XX/XX/XX      | 425          |

**Figure 5-17. Alert and Action Schedule Dates  
(Alert Date Items)**

**ACTION DATE LIST OF PROBLEM AREAS  
ASSESSMENT OF ILS MAINTENANCE PLANNING**

EQUIPMENT ID: XXXXXX  
ILS MILESTONE: XXX

OFFICE SYMBOL: XXXXX

Page #: 1

Report Date: XX/XX/XX

| QUESTION  | ANSWER | COST & SCHED<br>RATING | PERF & SUST<br>RATING | ACTION<br>DATE | DAYS<br>LEFT |
|-----------|--------|------------------------|-----------------------|----------------|--------------|
| E1.7A1-02 | NO     | CRITICAL               | CRITICAL              | XX/XX/XX       | -98          |
| E1.6A7-01 | NO     | INTERMEDIATE           | ROUTINE               | XX/XX/XX       | -97          |
| E1.1-07   | NO     | INTERMEDIATE           | INTERMEDIATE          | XX/XX/XX       | -69          |
| E1.6A6-01 | NO     | CRITICAL               | INTERMEDIATE          | XX/XX/XX       | 228          |
| E1.6A3-02 | YES    | ---                    | ---                   | XX/XX/XX       | 425          |

Figure 5-18. Alert and Action Schedule Dates  
(Action Date Items)

# **APPENDIX A**

----

## **ILS ELEMENT E11 DESIGN INFLUENCE**

### **DATA FLOW DIAGRAMS**

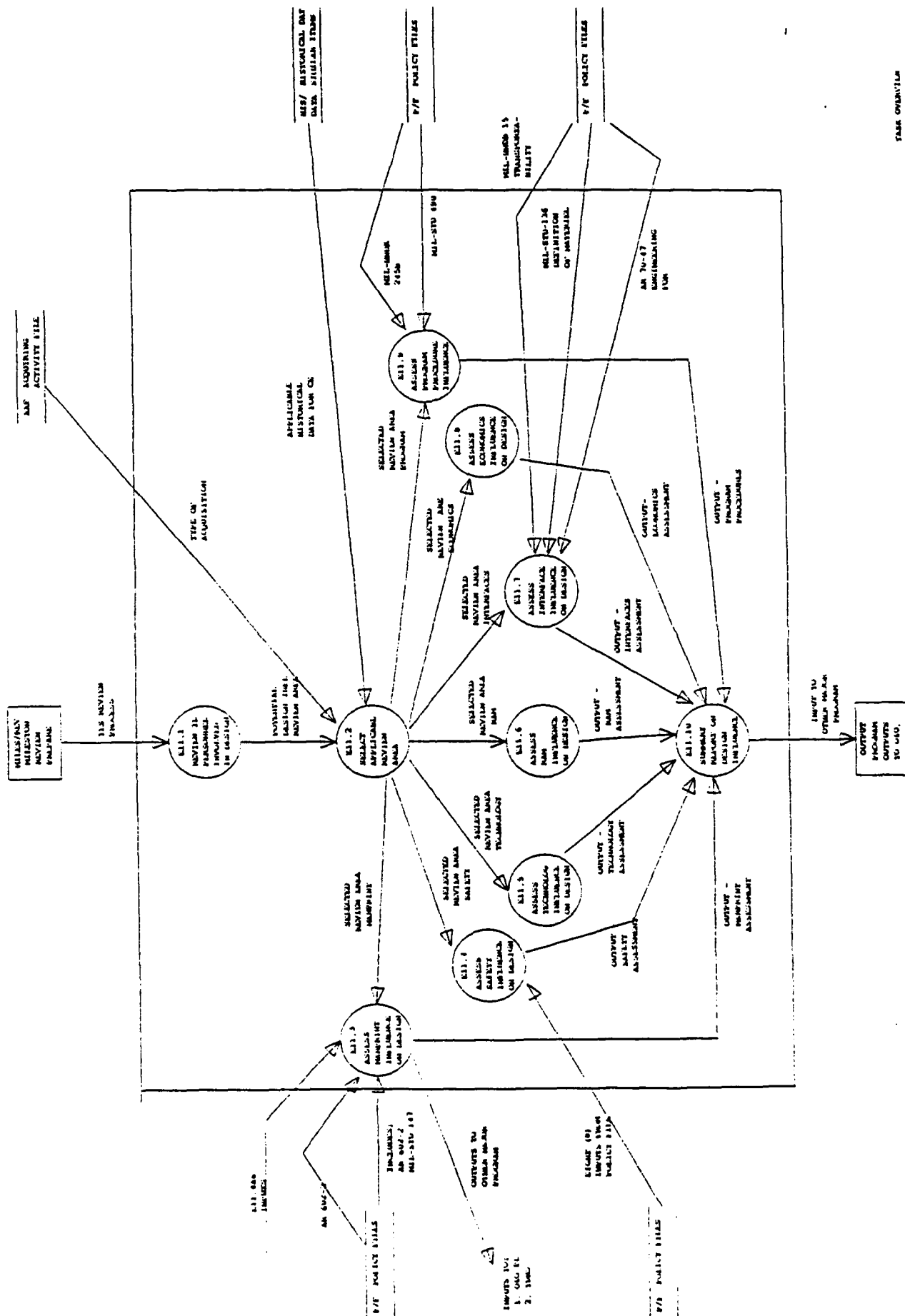
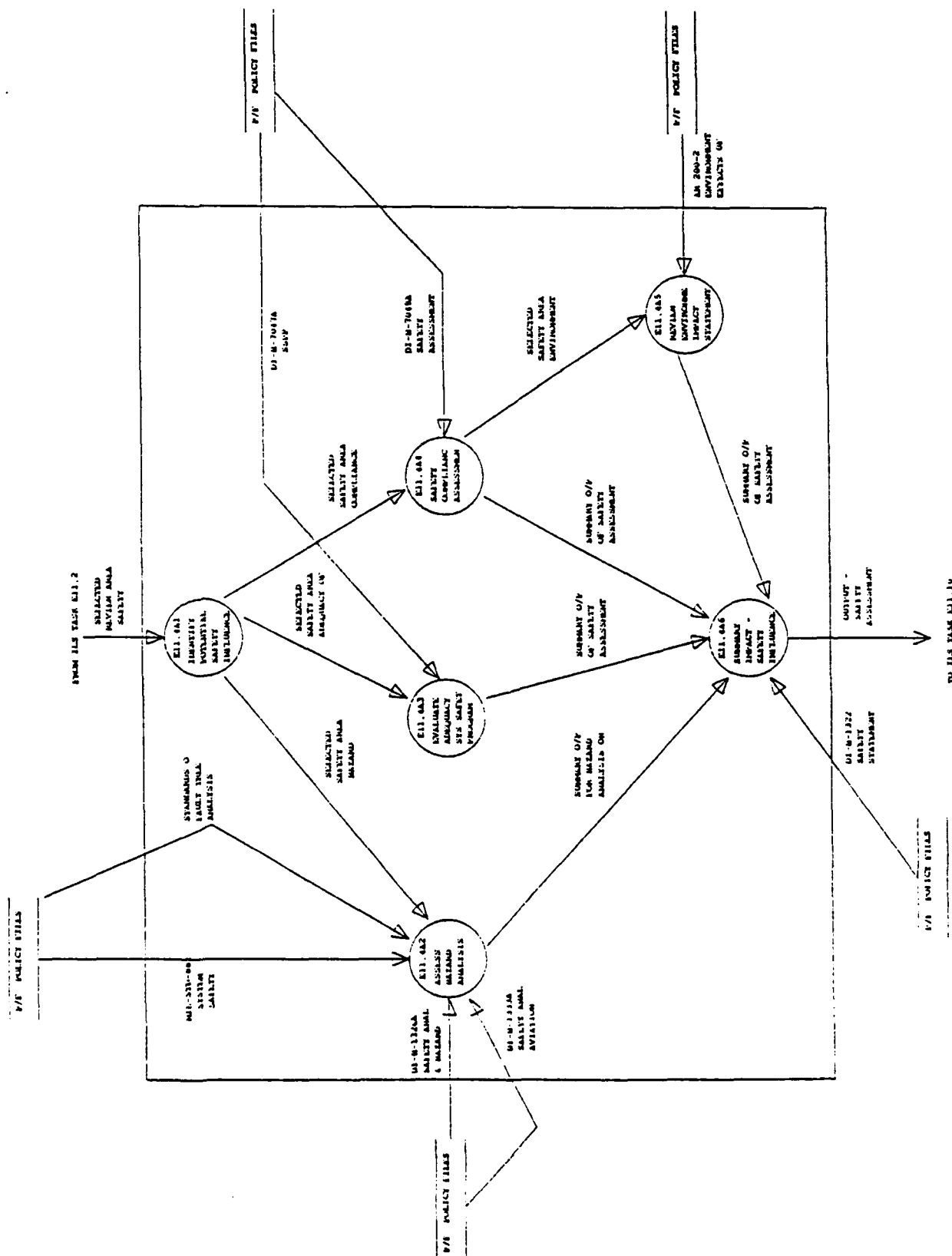


TABLE OVERVIEW

MIL-STD-156  
 Control by: JAC  
 Control by: JAC  
 Date changed: 11-10-88

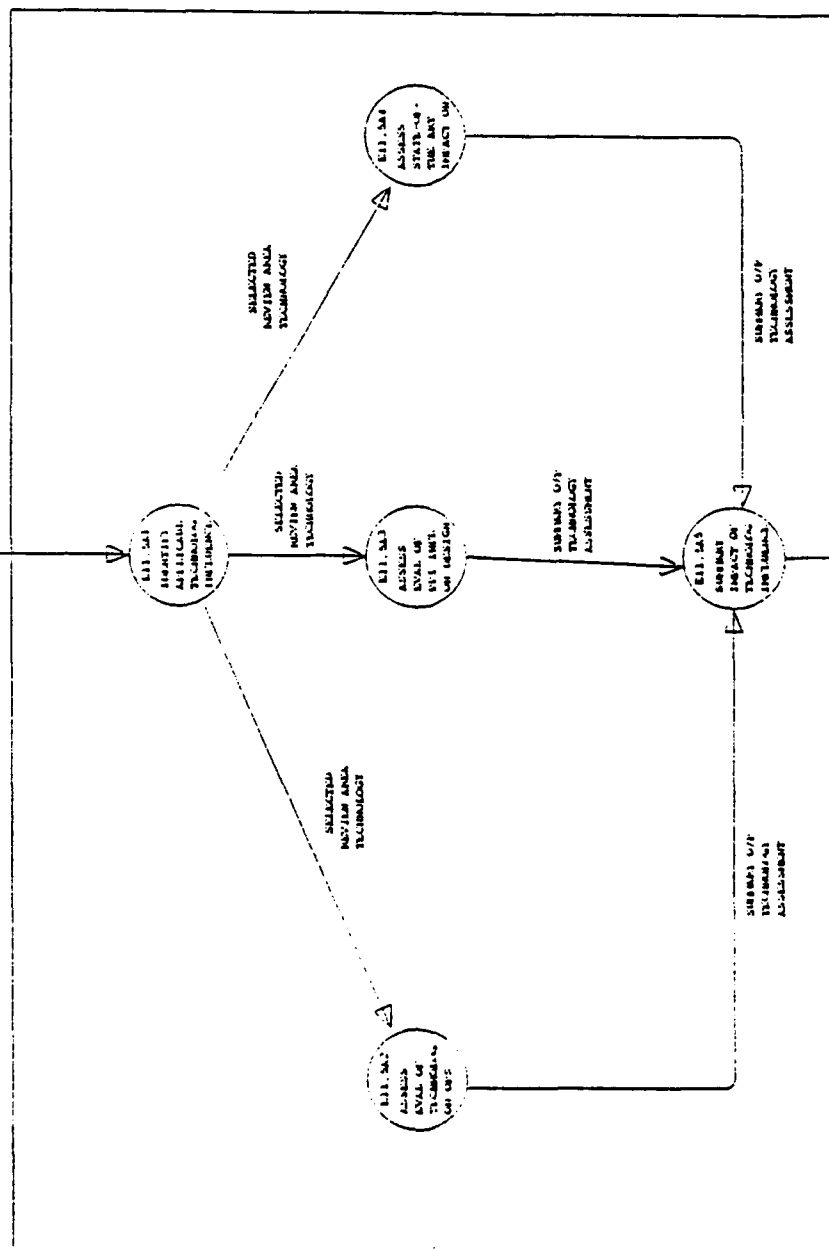


SAFETY



FROM ILS TASK E11.1

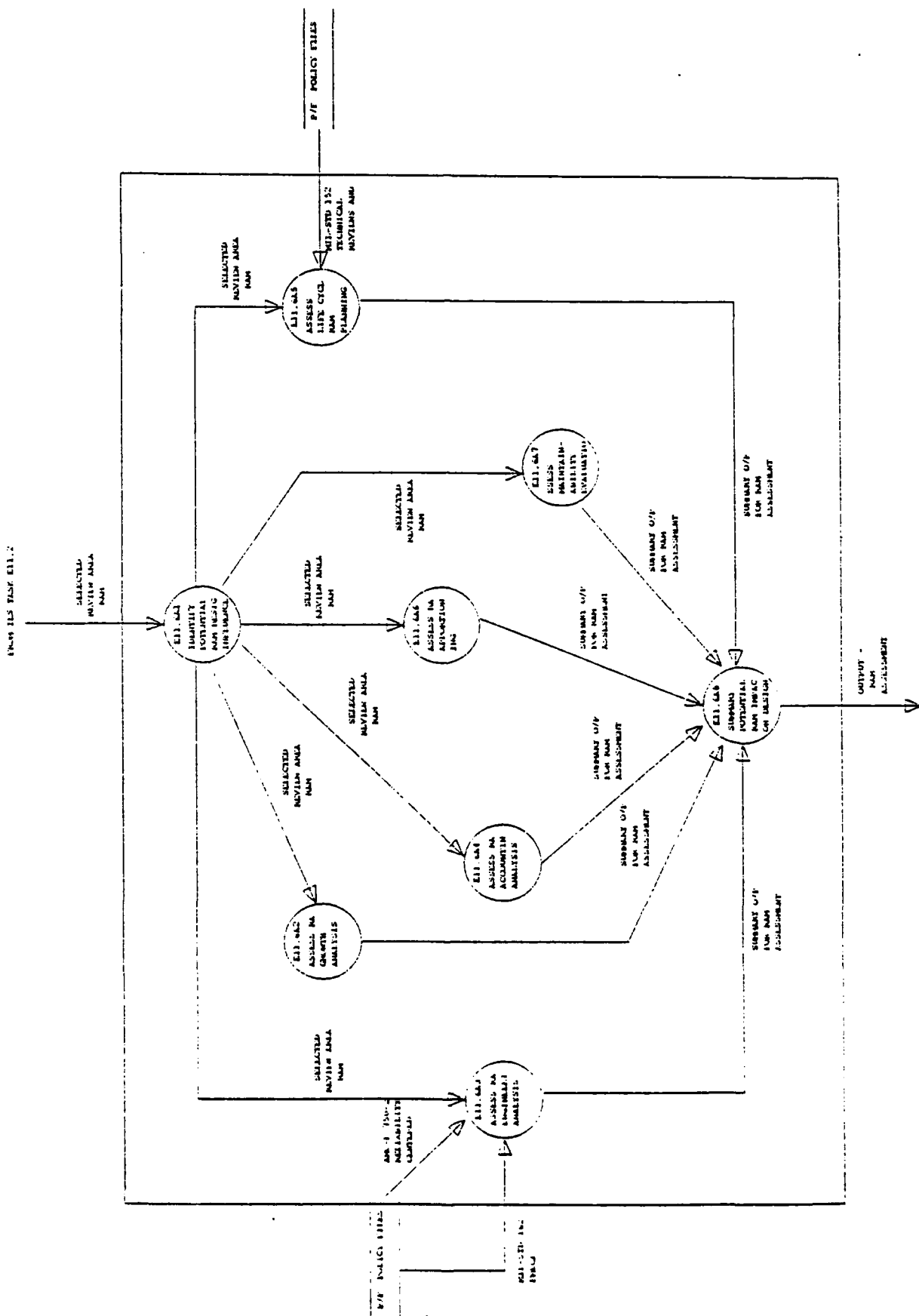
DATA-TYPE  
SYSTEM AREA  
TECHNICAL

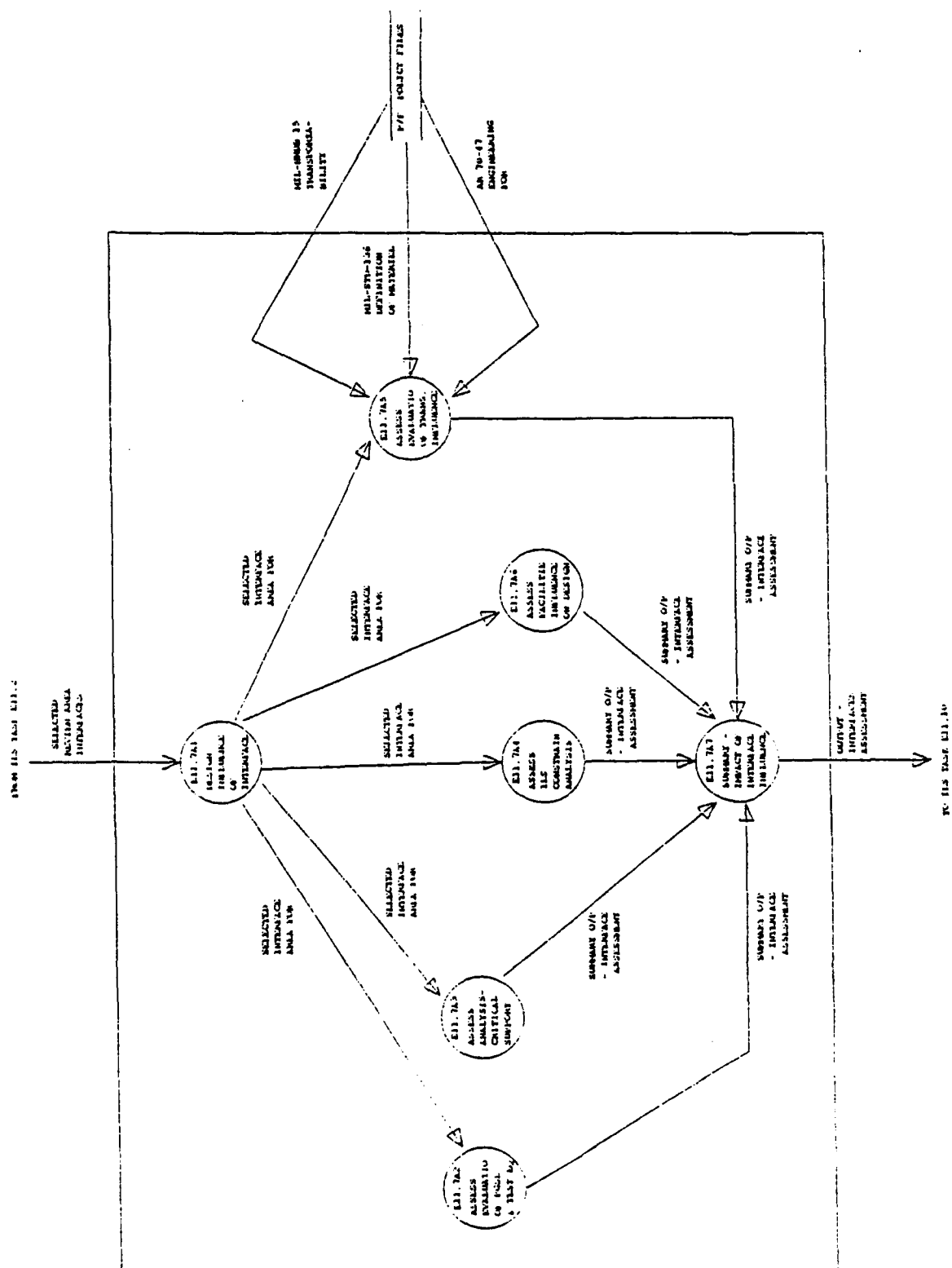


TO ILS TASK E11.15

TECHNICAL

E11.14  
Created by: MLC  
Reviewed by: MLC  
Date: 10/10/00





**ROYALTY**

1000

[illegible]

10-277-01 10-277-01 10-277-01





## **APPENDIX B**

----

### **ILS ELEMENT E11 ASSESSMENT OF DESIGN INFLUENCE**

## E11 - DESIGN INFLUENCE

THROUGHOUT THE QUESTIONS/ISSUES TO BE ADDRESSED TO ADEQUATELY COVER THE ILS ELEMENT OF DESIGN INFLUENCE, REFERENCES ARE MADE TO THE LOGISTIC SUPPORT ANALYSIS (LSA) TASKS AND LSA RECORDS (LSAR). THIS IS BECAUSE LSA IS THE SINGLE, UNIFORM APPROACH FOR CONDUCTING ACTIVITIES NECESSARY TO CAUSE SUPPORTABILITY REQUIREMENTS TO BE AN INTEGRAL PART OF SYSTEM REQUIREMENTS AND DESIGN, AND IS THE SELECTIVE APPLICATION OF ENGINEERING EFFORTS AS A PART OF SYSTEM ENGINEERING AND THE DESIGN PROCESS.

RESULTS FROM LSA TASKS GENERATE DATA THAT IS RECORDED AS LSA DOCUMENTATION, INCLUDING MANUAL AND/OR AUTOMATED LSAR DATA RECORDS. NOTE THAT LITTLE FORMAL LSAR DATA IS GENERATED IN THE EARLY PHASES OF THE MATERIEL DEVELOPMENT AND ACQUISITION PROGRAM. THE RESULTS OF EARLY LSA ARE DOCUMENTED THROUGH STUDY REPORTS AND RECOMMENDATIONS, AND USED TO DEFINE GROSS REQUIREMENTS AT SYSTEM AND MAJOR SUBSYSTEM LEVELS. MOST DETAILED LSAR DATA IS INITIATED IN THE DEVELOPMENT PHASE PROVIDED DURING THE FULL-SCALE DEVELOPMENT OR EQUIVALENT PHASE.

THE PRIMARY SOURCE OF VALIDATED AND INTEGRATED DESIGN RELATED SUPPORTABILITY DATA IS LSA DOCUMENTATION. IT IS ALSO THE AUDIT TRAIL OF SUPPORTABILITY RELATED DESIGN ANALYSIS AND DECISIONS, AND SERVES AS THE BASIS FOR ACTIONS AND DOCUMENTS RELATED TO ALL ILS ELEMENTS.

IT IS CRITICAL THAT ONLY SPECIFIC LSA TASK AREAS AND ONLY THE MINIMUM RANGE OF LSAR DATA BE SELECTED, BASED ON EACH PROGRAM TO EFFECTIVELY SATISFY PLANNING FOR SUPPORT OF THE NEW WEAPON SYSTEMS AND EQUIPMENT.

### E11.1 DESIGN REVIEW PERSONNEL

SINCE INTEGRATED LOGISTIC SUPPORT (ILS) IS THE MANAGEMENT PROCESS TO FACILITATE DEVELOPMENT AND INTEGRATION OF LOGISTIC SUPPORT ELEMENTS TO ACQUIRE, FIELD, AND SUPPORT SYSTEMS, AN ILS MANAGEMENT TEAM (ILSMT) COORDINATES ILS PLANNING AND EXECUTION. DESIGN INFLUENCE IS AN INTANGIBLE ILS ELEMENT WHICH IMPACTS SIGNIFICANTLY ON SYSTEM READINESS, SUPPORTABILITY AND AFFORDABILITY. TO ENSURE THAT ILS GOALS AND THRESHOLDS INFLUENCE SYSTEM DESIGN, ILSMT MEMBERS MUST PARTICIPATE IN THE PROGRAM DESIGN AND LSA REVIEWS.

- E11.1-1            HAVE PERSONNEL TO PARTICIPATE IN DESIGN REVIEWS BEEN IDENTIFIED FROM THE ILSMT MEMBERSHIP PLAN TO ENSURE REPRESENTATION BY ALL FUNCTIONAL AREAS THAT AFFECT SUPPORTABILITY AND SUPPORTABILITY-RELATED DESIGN REQUIREMENTS?
- o Yes
  - o No
- E11.1-2            IS LSA TASK 103, "PROGRAM AND DESIGN REVIEW", INCLUDED IN THE LSA PROGRAM TO PLAN AND PROVIDE FOR OFFICIAL REVIEW AND CONTROL OF RELEASED DESIGN INFORMATION IN A TIMELY AND CONTROLLED MANNER?
- o Yes
  - o No
    - Determine if there is an equivalent requirement specified in the statement of work.
- E11.1-3            HAVE REVIEW PERSONNEL BEEN ADVISED OF THEIR RESPONSIBILITY TO IDENTIFY FOR COORDINATED RESOLUTION THOSE IMPACTS OR PROPONENT REQUIREMENTS THAT MAY ADVERSELY AFFECT SYSTEM FIELDING?
- o Yes
  - o No
- E11.1-4            ARE DESIGN REVIEW PROCEDURES, AGENDAS, AND DOCUMENTED RESULTS OF EACH REVIEW BEING PROVIDED TO EACH REVIEW PARTICIPANT?
- o Yes
  - o No

- E11.1-5 ARE PERSONNEL INVOLVED IN DESIGN REVIEWS SUITABLE FOR ACCOMPLISHING A SUPPORTABILITY ASSESMENT OF DESIGN FEATURES INCLUDING SUPPORTABILITY, COST, AND READINESS DRIVERS AND NEW OR CRITICAL LOGISTIC SUPPORT RESOURCE REQUIREMENTS?
- ☐ Yes
  - ☐ No
- E11.1-6 ARE PERSONNEL INVOLVED IN DESIGN REVIEWS SUITABLE FOR IDENTIFYING DESIGN, SCHEDULE, OR ANALYSIS PROBLEMS AFFECTING SUPPORTABILITY?
- ☐ Yes
  - ☐ No
- E11.1-7 ARE PERSONNEL INVOLVED IN DESIGN REVIEWS SUITABLE FOR REVIEWING CORRECTIVE ACTIONS CONSIDERED, PROPOSED, OR TAKEN?
- ☐ Yes
  - ☐ No
- E11.2 SELECT APPLICABLE REVIEW AREA
- E11.2-1 IS SELECTED REVIEW AREA BASED ON SUPPORTABILITY PROBLEMS AND SUPPORTABILITY, COST, AND READINESS DRIVERS IDENTIFIED IN THE BASELINE COMPARISON SYSTEM SELECTED OR DEVELOPED UNDER LSA TASK 203, COMPARATIVE ANALYSIS?
- ☐ Yes
  - ☐ No

- E11.2-2 HAVE APPROPRIATE SUPPORTABILITY AND SUPPORTABILITY-RELATED DESIGN CONSTRAINTS BEEN DEFINED BASED ON COST, MANPOWER, PERSONNEL, READINESS, OR SUPPORT POLICY CONSIDERATIONS?
- o Yes
    - Consider how LSA Task 202 results were used.
    - Comment on the use of mission hardware, software, and support system standardization in the development of supportability design constraints.
  - o No
- E11.2-3 DO REVIEW AREAS INCLUDE DESIGN PROBLEMS OR DEFICIENCIES AFFECTING SUPPORTABILITY IDENTIFIED BY PROCEDURES AND CONTROLS ESTABLISHED IN LSA TASK 102, OR THE LSA PLAN?
- o Yes
    - Determine if the review includes the assessment the status of actions required and taken to resolve the problems.
  - o No
- E11.3 ASSESS MANPRINT INFLUENCE ON DESIGN
- E11.3A1 IDENTIFY MANPRINT INFLUENCE
- E11.3A1-1 HAVE MANPRINT PARAMETERS BEEN PROJECTED FROM THE BASELINE COMPARISON SYSTEM SELECTED OR DEVELOPED UNDER LSA TASK 203?
- o Yes
  - o No
- E11.3A1-2 IS THE SYSTEM COMPLETELY FREE OF MANPRINT PROBLEMS WHICH WERE IDENTIFIED ON SIMILAR SYSTEMS THAT WERE PREVIOUSLY FIELDDED?
- o Yes
  - o No

- E11.3A1-3 HAVE MANPRINT DOMAINS BEEN DETERMINED TO BE COST AND READINESS DRIVERS FOR THE NEW SYSTEM?
- o Yes
  - o No
- E11.3A1-4 HAVE QUANTITATIVE AND/OR QUALITATIVE MANPRINT DOMAIN DESIGN OBJECTIVES, GOALS, THRESHOLDS AND CONSTRAINTS BEEN ESTABLISHED FROM LSA TASK 205, SUPPORTABILITY AND SUPPORTABILITY-RELATED DESIGN FACTORS?
- o Yes
  - o No
- E11.3A1-5 HAS LSA TASK 301, "FUNCTIONAL REQUIREMENTS IDENTIFICATION" BEEN COMPLETED TO IDENTIFY DESIGN DEFICIENCIES REQUIRING REDESIGN?
- o Yes
  - o No
- E11.3A1-6 HAVE DESIGN ALTERNATIVES BEEN FORMULATED TO CORRECT DESIGN DEFICIENCIES UNCOVERED DURING THE FUNCTIONAL REQUIREMENTS IDENTIFICATION?
- c Yes
    - Indicate whether the design alternatives reduce/simplify the functions affecting MANPRINT domains.
  - o No
- E11.3A1-7 DO THE RESULTS OF LSA TASK 301 "FUNCTIONAL REQUIREMENTS IDENTIFICATION" INDICATE THAT THE DESIGN SIMPLIFIES OPERATOR/MAINTENANCE FUNCTIONS AND REDUCES THE EFFECT ON MANPRINT DOMAIN?
- o Yes
  - o No

E11.3A1-8 HAS AN ANALYSIS BEEN CONDUCTED TO IDENTIFY  
MANPRINT ISSUES REQUIRING TRADE-OFF STUDIES UNDER  
LSA TASK 303?

- o Yes
  - What MANPRINT issues have been identified?
  - Where are they documented?

o No

E11.3A1-9 HAVE MANPRINT ISSUES BEEN IDENTIFIED FOR TEST,  
EVALUATION AND VERIFICATION UNDER TASK 501?

- o Yes
  - Indicate methods for correcting deficiencies.

o No

E11.3A2 ASSESS PLANS FOR HUMAN FACTORS ENGINEERING ANALYSIS  
(HFEA)

E11.3A2-1 IS HFE BEING PROPERLY APPLIED IN THE  
DEVELOPMENT OF HUMAN PERFORMANCE REQUIREMENTS  
AND FOR SYSTEMS WITH SPECIFIC SOLDIER-MATERIEL  
INTERFACE?

o Yes

o No

E11.3A2-2 ARE HFE CONSIDERATIONS AND DESIGN CRITERIA  
INTEGRATED INTO THE DEVELOPMENT OF PACKAGING,  
HANDLING STORAGE, MAINTENANCE, IDENTIFICATION,  
TRANSPORTATION, AND DISPOSAL?

o Yes

o No

- E11.3A2-3 ARE HFE ISSUES INCLUDED IN TT, UT, FAT, TEST PLANNING AND FOE?
- o Yes
    - Indicate whether the results of these tests showed shortcomings in HFE.
  - o No
    - What is the status of implementing necessary corrective action?
- E11.3A2-4 IS A HUMAN FACTORS ENGINEER FROM THE HUMAN ENGINEERING LABORATORY AN ACTIVE MEMBER OF THE MANPRINT JWG?
- o Yes
    - Indicate whether he was involved in the requirement to conduct a HFEA at the conclusion of each materiel acquisition phase IAW AR 602-1?
  - o No
- E11.3A2-5 IS HFE BEING APPLIED TO APPLICABLE ILS PROGRAM ELEMENTS AND TO SYSTEM DESIGN APPROACHES TO ASSURE COMPATIBILITY WITH THE CAPABILITIES AND LIMITATIONS OF OPERATIONS AND MAINTENANCE PERSONNEL?
- o Yes
  - o No
    - Indicate whether HFE was considered, and if not, why not

E11.3A3 ASSESS SYSTEM MANPRINT MANAGEMENT PLAN (SMMP)

E11.3A3-1 DOES THE SMMP SERVE AS A STAND-ALONE PLANNING AND MANAGEMENT GUIDE AND AUDIT TRAIL TO IDENTIFY THE TASKS, ANALYSES, TRADE-OFFS, AND DECISIONS THAT MUST ADDRESS MANPRINT ISSUES?

☐ Yes

- Provide a rationale for selecting tasks, analysis, trade-offs that are going to be performed.

☐ No

E11.3A3-2 HAS IT BEEN UPDATED TO REMAIN CURRENT BY PROVIDING NEW INFORMATION OR DATA AS THE ACQUISITION PROCESS PROGRESSES?

☐ Yes

☐ No

E11.3A3-3 DOES IT DOCUMENT AVAILABLE DATA AND LIST MILESTONES FOR DATA TO BE GENERATED?

☐ Yes

☐ No

E11.3A3.4 DOES IT PROVIDE A COURSE OF ACTION TO IDENTIFY AND ADDRESS MANPRINT CONCERNS, LIST RANGE OF OPTIONS TO BE STUDIED, AND DOCUMENT RESULTS?

☐ Yes

☐ No

E11.3A3.5 DOES TAB D OF THE SMMP, QUESTIONS TO BE RESOLVED, LIST QUESTIONS WHOSE ANSWERS WILL INFLUENCE THE MANPRINT DECISIONS AND TRADE-OFFS TO BE MADE?

☐ Yes

- Indicate whether they are detailed and specific in nature.

- Indicate whether the SMMP has been coordinated with all MANPRINT program participants.

☐ No

E11.3A4 ASSESS EVALUATION OF SKILLS INFLUENCE

E11.3A4-1 DO THE STATEMENTS OF WORK IN THE RFP IDENTIFY THE QUANTITY QUALIFICATION OF THE SOLDIERS WHO WILL OPERATE, MAINTAIN, AND SUPPORT THE NEW SYSTEM?

☐ Yes

☐ No

E11.3A4-2 ARE ALL THE VARIABLES RELEVANT TO DESIGN CHARACTERISTICS FOR MEETING PERFORMANCE REQUIREMENTS (INCLUDING SKILL LEVEL AND EXPERIENCE) OF THE POOL OF SOLDIERS ADDRESSED?

☐ Yes

☐ No

E11.3A4-3 ARE RELEVANT VARIABLES BASED ON TASKS THAT MUST BE PERFORMED TO OPERATE, MAINTAIN, AND SUPPORT THE SYSTEM?

☐ Yes

☐ No

E11.3A4-4 ARE MOS DESCRIPTIONS AT DIFFERENT SKILL LEVELS PROVIDED TO DESIGNERS ABOUT JOBS PERFORMED IN THE SPECIALTY, TASK TRAINING, AND MAJOR DUTIES?

☐ Yes

☐ No

E11.3A4-5 DOES THE DESIGN MINIMIZE THE NEED FOR ADDITIONAL SKILLS OR TRAINING TO THE MAXIMUM FEASIBLE EXTENT?

☐ Yes

☐ No

E11.3A5 ASSESS EVALUATION OF MANPOWER REQUIRED

E11.3A5-1 ARE MANPOWER (NUMBER OF PERSONNEL AND GRADE LEVEL DISTRIBUTION FOR EACH MOS) GOALS AND CONSTRAINTS INCLUDED IN THE REQUIREMENT DOCUMENTS, SMMP, SOLICITATION DOCUMENTS, TEMP AND INDEPENDENT EVALUATION PLANS?

☐ Yes

☐ No

E11.3A5-2 DOES THE SYSTEM DESIGN CONSIDER MANPOWER NUMBERS FOR OPERATION AS WELL AS FOR MAINTENANCE, REPAIR, AND SUPPORT?

☐ Yes

☐ No

E11.3A5-3 IS THE OPERATOR AND MAINTAINER WORKLOAD (NUMBER AND FREQUENCY OF TASKS) RESULTING FROM THE SYSTEM DESIGN COMPATIBLE WITH MANPOWER AUTHORIZATIONS?

☐ Yes

☐ No

E11.3A5-4 COULD A TRADE-OFF BE CONSIDERED IN THE SYSTEM DESIGN TO REDUCE MANPOWER REQUIREMENTS BY REALLOCATING THE FUNCTION OR TASK TO A MACHINE OR A MAN/MACHINE CAPABILITY?

☐ Yes

☐ No

E11.3A5-5 ARE ANALYTICAL TECHNIQUES SPECIFIED IN TAB C OF THE SMMP TO DEVELOP MANPOWER GOALS AND CONSTRAINTS?

☐ Yes

- Comment on whether such techniques address trade-offs or alternate design options, and validation of design requirements.

☐ No

E11.3A6 PHYSICAL CONSTRAINT

- E11.3A6-1 HAS A COMPARISON BEEN MADE TO DETERMINE IF THE DESIGN CHARACTERISTICS FOR PERFORMANCE OF OPTIMUM MAINTENANCE AND SYSTEM SUPPORT TASKS BY THE TARGET POPULATION AGREES WITH THOSE CHARACTERISTICS OF THE TARGET MOS CONTAINED IN THE TARGET AUDIENCE DESCRIPTION, TAB G OF THE SMMP?
- o Yes
    - Consider the 70 lb. limitation on packages being subject to individual handling at the tactical unit level.
  - o No
- E11.3A6-2 IS THERE ADEQUATE SPACE FOR PERSONNEL, THEIR EQUIPMENT, AND FREE VOLUME FOR THE MOVEMENTS AND ACTIVITIES THEY ARE REQUIRED TO PERFORM DURING OPERATION AND MAINTENANCE TASKS?
- o Yes
  - o No
- E11.3A6-3 DOES THE DESIGN PROVIDE AN EFFICIENT ARRANGEMENT OF OPERATION AND MAINTENANCE WORKPLACES, EQUIPMENT, CONTROLS, AND DISPLAYS?
- o Yes
  - o No
- E11.3A6-4 HAS HUMAN ENGINEERING DESIGN CRITERIA WHICH DEFINES THE NATURE AND LIMITS OF HUMAN CAPABILITIES APPLIED DURING SYSTEM DESIGN TO ACHIEVE OPTIMUM COMPATIBILITY BETWEEN EQUIPMENT AND HUMAN PERFORMANCE?
- o Yes
  - o No

- E11.3A6-5 DOES THE SYSTEM DESIGN PROVIDE WORK ENVIRONMENTS WHICH DO NOT EXCEED OPERATOR AND MAINTAINER CAPABILITIES REGARDING REQUIRED WORKLOAD, ACCURACY, TIME CONSTRAINTS, MENTAL PROCESSING AND COMMUNICATION REQUIREMENTS?
- ☐ Yes
  - ☐ No
- E11.3A6-6 ARE CONTROLS, DISPLAYS, MARKING, CODING, LABELING AND ARRANGEMENT SCHEMES OF EQUIPMENT AND PANEL LAYOUT UNIFORM FOR COMMON FUNCTIONS OF ALL EQUIPMENT?
- ☐ Yes
  - ☐ No
- E11.3A6-7 DOES THE DESIGN INCORPORATE APPLICABLE SYSTEM AND PERSONNEL SAFETY FACTORS INCLUDING MINIMIZATION OF POTENTIAL HUMAN ERROR IN THE OPERATION AND MAINTENANCE OF THE SYSTEM?
- ☐ Yes
  - ☐ No
- E11.3A6-8 IS THERE ADEQUATE OR ARTIFICIAL ILLUMINATION FOR PERFORMANCE OF OPERATION, CONTROL, TRAINING, AND MAINTENANCE?
- ☐ Yes
  - ☐ No
- E11.3A6-9 ARE THE DESIGN, LOCATION AND LAYOUT OF CONTROLS, DISPLAYS, WORKSPACES, AND MAINTENANCE ACCESSSES COMPATIBLE WITH THE CLOTHING AND PERSONAL EQUIPMENT TO BE WORN BY OPERATORS AND MAINTAINERS?
- ☐ Yes
    - Discuss whether these task allocations and control movements are compatible with restrictions imposed on human performance by the clothing and personal equipment.
  - ☐ No

- E11.3A6-10 DOES THE EQUIPMENT REPRESENT THE SIMPLEST DESIGN CONSISTENT WITH FUNCTIONAL REQUIREMENTS AND SERVICE CONDITIONS TO ENABLE OPERATION, MAINTENANCE, AND REPAIR BY PERSONNEL WITH A MINIMUM OF TRAINING?
- ☐ Yes
  - ☐ No
- E11.3A7 TRAINING
- E11.3A7-1 ARE TRAINING CONSTRAINTS INCLUDED IN THE OPERATIONAL AND ORGANIZATIONAL (O&O) PLAN AND THE SMMP? (TRAINING CONSTRAINTS INCLUDE DESIGN REQUIREMENT TO ELIMINATE OR SIMPLIFY IDENTIFIED HIGH DRIVER TASKS, COMPLETE TRAINING WITHIN TIME LIMITS, AND PROVIDE FOR SIMULATORS TO MEET CONSTRAINTS OF TRAINING RESOURCES.)
- ☐ Yes
  - ☐ No
- E11.3A7-2 DOES THE TRAINING ASSESSMENT IN THE REQUIRED OPERATIONAL CAPABILITY (ROC) INCLUDE THE NEED FOR SYSTEM TRAINING DEVICES TO SUPPORT INSTITUTIONAL TRAINING AND EMBEDDED TRAINING CAPABILITY TO SUPPORT INDIVIDUAL TRAINING?
- ☐ Yes
    - Discuss requirements for development of a training package and extension training materials.
  - ☐ No
- E11.3A7-3 WAS LSA TASK 303.2.6, "TRAINING TRADE-OFFS" CONDUCTED TO CONSIDER REQUIREMENT FOR DESIGN OF TRAINING SIMULATORS?
- ☐ Yes
  - ☐ No

E11.3A7-4      IS DESIGN, DEVELOPMENT, DELIVERY, INSTALLATION  
AND LOGISTIC SUPPORT OF REQUIRED TRAINING  
DEVICES INCLUDED?

☐ Yes

☐ No

#### E11.4      SAFETY INFLUENCE

IS IT IMPOSSIBLE OR IMPRACTICAL TO DESIGN A SYSTEM THAT IS COMPLETELY HAZARD-FREE? A HAZARD IS AN EXISTING OR LIKELY CONDITION THAT CAN CAUSE AN ACCIDENT WHICH IS AN UNPLANNED EVENT THAT RESULTS IN ILLNESS, INJURY, OR DEATH TO PERSONNEL OR DAMAGE TO EQUIPMENT OR PROPERTY. SYSTEM SAFETY INVOLVES DESIGNING THE OPTIMUM DEGREE OF SAFETY AND HEALTH FEATURES WITHIN THE BOUNDS OF OPERATIONAL EFFECTIVENESS, TIME, AND COST TO REDUCE AND CONTROL HAZARDS AND THEIR ASSOCIATED RISKS TO AN ACCEPTABLE LEVEL.

SYSTEM SAFETY REQUIREMENTS MUST BE SATISFIED BY FOLLOWING AN ORDER OF PRECEDENCE SPECIFIED IN MIL-STD-882B, "SYSTEM SAFETY PROGRAM REQUIREMENTS"

#### E11.4A1      POTENTIAL SAFETY INFLUENCE

E11.4A1-1      WHEN POTENTIALLY HAZARDOUS MATERIALS MUST BE USED, IS SELECTION BASED UPON THE LEAST RISK THROUGHOUT THE LIFE CYCLE OF THE SYSTEM?

☐ Yes

☐ No

E11.4A1-2      ARE HAZARDOUS SUBSTANCES, COMPONENTS, AND OPERATIONS ISOLATED FROM OTHER ACTIVITIES, AREAS, PERSONNEL, AND INCOMPATIBLE MATERIALS?

☐ Yes

☐ No

- E11.4A1-3 IS THE REQUIRED USE OF HAZARDOUS MATERIALS IN THE SYSTEM DESIGN KEPT TO AN ABSOLUTE MINIMUM TO REDUCE HAZARDS ASSOCIATED WITH OPERATION, TRANSPORTATION, MAINTENANCE, HANDLING, AND FUTURE DISPOSAL REQUIREMENTS?
- ☐ Yes
  - ☐ No
- E11.4A1-4 IS EQUIPMENT LOCATED SO THAT ACCESS DURING OPERATION, SERVICING, MAINTENANCE, REPAIR, OR ADJUSTMENT MINIMIZES PERSONNEL EXPOSURE TO HAZARDOUS CHEMICALS, HIGH VOLTAGE, ELECTRO-MAGNETIC RADIATION, CUTTING EDGES OR SHARP POINTS?
- ☐ Yes
  - ☐ No
- E11.4A1-5 IS RISK MINIMIZED WHICH WOULD RESULT FROM EXCESSIVE TEMPERATURES, PRESSURE, NOISE, TOXICITY, ACCELERATION, AND VIBRATION?
- ☐ Yes
  - ☐ No
- E11.4A1-6 DOES DESIGN MINIMIZE RISKS CREATED BY HUMAN ERROR IN OPERATION AND SUPPORT OF THE SYSTEM?
- ☐ Yes
  - ☐ No
- E11.4A1-7 WHEN HAZARDS EXIST, ARE ASSOCIATED RISKS MINIMIZED BY INCORPORATION OF INTERLOCKS, REDUNDANCY, FAIL-SAFE DESIGN, FIRE SUPPRESSION, AND PROTECTIVE CLOTHING, EQUIPMENT, DEVICES, AND PROCEDURES?
- ☐ Yes
  - ☐ No

- E11.4A1-8 ARE POWER SOURCES, CONTROLS, AND CRITICAL COMPONENTS OF REDUNDANT SUBSYSTEMS PROTECTED BY PHYSICAL SEPARATION OR SHIELDING?
- ☐ Yes
  - ☐ No
- E11.4A1-9 ARE DISTINCTIVE MARKINGS INCLUDED ON HAZARDOUS COMPONENTS, MATERIALS, AND EQUIPMENT?
- ☐ Yes
  - ☐ No
- E11.4A1-10 ARE STANDARDIZED WARNING AND CAUTION NOTES PROVIDED IN ASSEMBLY, OPERATION, MAINTENANCE, AND REPAIR INSTRUCTIONS?
- ☐ Yes
  - ☐ No
- E11.4A2 HAZARD ANALYSIS
- E11.4A2-1 IS TASK 100 OF MIL-STD-882B SPECIFIED TO CONDUCT A BASIC SYSTEM SAFETY PROGRAM AS A PREREQUISITE FOR IMPOSING MIL-STD-882B TASKS?
- ☐ Yes
  - ☐ No
- E11.4A2-2 IS TASK 105, "HAZARD TRACKING AND RISK RESOLUTION", OF MIL-STD-882B SPECIFIED TO DEVELOP AND MAINTAIN A SINGLE CLOSED-LOOP HAZARD TRACKING SYSTEM TO PROVIDE AN AUDIT TRAIL OF HAZARD RESOLUTION?
- ☐ Yes
  - ☐ No

- E11.4A2-3 IS TASK 201, "PRELIMINARY HAZARD LIST", OF MIL-STD-882B SPECIFIED TO IDENTIFY POSSIBLY INHERENT HAZARDS THAT MAY REQUIRE SPECIAL SAFETY DESIGN EMPHASIS OR IN-DEPTH ANALYSIS?
- ☐ Yes
  - ☐ No
- E11.4A2-4 IS TASK 202, "PRELIMINARY HAZARD ANALYSIS", OF MIL-STD-882B SPECIFIED TO IDENTIFY SAFETY CRITICAL AREAS AND DEVELOP SAFETY DESIGN CRITERIA?
- ☐ Yes
  - ☐ No
- E11.4A2-5 DOES THE PRELIMINARY HAZARD ANALYSIS (PHA) CONSIDER ALL HAZARDOUS COMPONENTS, SAFETY-RELATED INTERFACE CONSIDERATIONS, ENVIRONMENTAL CONSTRAINTS; OPERATING, TEST, MAINTENANCE AND EMERGENCY PROCEDURES, INCLUDING HUMAN ERROR ANALYSIS; FACILITIES, SUPPORT EQUIPMENT AND TRAINING; AND SAFETY-RELATED EQUIPMENT AND SAFEGUARDS?
- ☐ Yes
  - ☐ No
- E11.4A2-6 IS THE PHA STRUCTURED FOR CONTINUAL REVISION AND UPDATING UNTIL TERMINATED AT THE START OF SUBSYSTEM HAZARD ANALYSIS?
- ☐ Yes
  - ☐ No
- E11.4A2-7 IS TASK 203, "SUBSYSTEM HAZARD ANALYSIS (SSHA)", OF MIL-STD-882B SPECIFIED FOR SPECIFIC SUBSYSTEMS TO IDENTIFY HAZARDS RELATED TO COMPONENT FAILURE MODES, CRITICAL HUMAN EFFORT INPUTS, AND HAZARDS HAZARDS RESULTING FROM FUNCTIONAL RELATIONSHIPS BETWEEN COMPONENTS AND EQUIPMENT OF THE SUBSYSTEM?
- ☐ Yes
  - ☐ No

- E11.4A2-8 ARE ANALYSIS TECHNIQUES SPECIFIED, SUCH AS FAULT-HAZARD ANALYSIS, FAULT-TREE ANALYSIS, AND SNEAK CIRCUIT ANALYSIS?
- ☐ Yes
  - ☐ No
- E11.4A2-9 IS TASK 204, "SYSTEM HAZARD ANALYSIS (SHA)", OF MIL-STD-882B SPECIFIED TO DETERMINE SAFETY PROBLEM AREAS OF THE TOTAL SYSTEM DESIGN, INCLUDING POTENTIAL SAFETY CRITICAL HUMAN ERRORS AND SUBSYSTEM INTERFACES?
- ☐ Yes
  - ☐ No
- E11.4A3 SYSTEM SAFETY PROGRAM PLAN (SSPP)
- E11.4A3-1 IS TASK 101 OF MIL-STD-882B AND DATA ITEM DI-H 7047A SPECIFIED TO DEVELOP AND PROVIDE A SYSTEM SAFETY PROGRAM PLAN?
- ☐ Yes
  - ☐ No
- E11.4A3-2 ARE PROCEDURES ESTABLISHED BY WHICH THE CONTRACTOR WILL INTEGRATE AND COORDINATE SYSTEM SAFETY EFFORTS, INCLUDING HAZARD ANALYSIS AND PROGRAM AND DESIGN REVIEWS?
- ☐ Yes
  - ☐ No
- E11.4A3-3 ARE SAFETY DESIGN CRITERIA DESCRIBED AND SAFETY STANDARDS LISTED TO SATISFY SAFETY REQUIREMENTS?
- ☐ Yes
  - ☐ No

- E11.4A3-4 ARE CLOSED-LOOP PROCEDURES DESCRIBED FOR ACTIONS TO RESOLVE IDENTIFIED HAZARDS, INCLUDING VERIFICATION?
- ☐ Yes
  - ☐ No
- E11.4A4 SAFETY COMPLIANCE ASSESSMENT
- E11.4A4-1 IS TASK 210 OF MIL-STD-882B AND DI-H-7049A SPECIFIED TO PERFORM AND DOCUMENT A SAFETY COMPLIANCE ASSESSMENT TO VERIFY COMPLIANCE WITH SAFETY REQUIREMENTS AND ENSURE A SAFE DESIGN AND EVALUATE THE SAFETY RISK BEING ASSUMED PRIOR TO TEST OR OPERATION OF A SYSTEM?
- ☐ Yes
  - ☐ No
- E11.4A4-2 DOES THE ASSESSMENT DOCUMENT COMPLIANCE OF THE DESIGN AND PROCEDURES WITH CONTRACTUAL SAFETY REQUIREMENTS?
- ☐ Yes
  - ☐ No
- E11.4A4-3 DOES THE ASSESSMENT EVALUATE RESIDUAL HAZARDS INHERENT IN THE SYSTEM OR THAT ARISE FROM INSTALLATION, TEST, OPERATION, MAINTENANCE, OR SUPPORT OF THE SYSTEM?
- ☐ Yes
  - ☐ No
- E11.4A4-4 ARE REQUIRED SAFETY DESIGN FEATURES, DEVICES, PROCEDURES, SKILLS, TRAINING, SUPPORT REQUIREMENTS, AND PERSONNEL PROTECTIVE EQUIPMENT IDENTIFIED?
- ☐ Yes
  - ☐ No

- E11.4A4-5 ARE PRECAUTIONS AND PROCEDURES IDENTIFIED FOR SAFE STORAGE, HANDLING, TRANSPORT, USE AND DISPOSAL OF HAZARDOUS MATERIALS?
- ☐ Yes
  - ☐ No
- E11.4A5 REVIEW ENVIRONMENTAL IMPACT STATEMENT
- E11.4A5-1 HAS THE SYSTEM BEEN REVIEWED TO DETERMINE WHETHER AN ENVIRONMENTAL ASSESSMENT OR AN ENVIRONMENTAL IMPACT STATEMENT IS REQUIRED BASED ON CRITERIA AND QUALIFICATION FOR EXCLUSION CONTAINED IN AR 200-2?
- ☐ Yes
  - ☐ No
- E11.4A5-2 ARE THERE DESIGN CONSIDERATIONS WHICH CAN BE INCORPORATED TO PROVIDE MITIGATION MEASURES TO REDUCE OR AVOID ADVERSE ENVIRONMENTAL EFFECTS?
- ☐ Yes
  - ☐ No
- E11.4A5-3 IF AN ENVIRONMENTAL ASSESSMENT IS REQUIRED TO EXAMINE THE NEW SYSTEM, HAVE ALTERNATIVES BEEN CONSIDERED WHICH WILL NOT HAVE A SIGNIFICANT EFFECT ON THE HUMAN ENVIRONMENT AND THAT WILL NOT REQUIRE AN ENVIRONMENTAL IMPACT STATEMENT?
- ☐ Yes
  - ☐ No
- E11.4A5-4 IS THE DESIGN OF THE NEW WEAPON SYSTEM SIMILAR TO EXISTING SYSTEMS WHICH HAVE BEEN PREVIOUSLY EXAMINED AND FOUND TO MEET CRITERIA NOT REQUIRING AN ENVIRONMENTAL ASSESSMENT OR ENVIRONMENTAL IMPACT STATEMENT?
- ☐ Yes
  - ☐ No

E11.5 ASSESS TECHNOLOGY INFLUENCE ON DESIGN

E11.5A1 DESIGN OPPORTUNITIES FOR SUPPORTABILITY

E11.5A1-1 IS TASK 204, TECHNOLOGICAL OPPORTUNITIES, OF MIL-STD-1388-1A SPECIFIED TO IDENTIFY AND EVALUATE DESIGN OPPORTUNITIES FOR IMPROVEMENT OF THE NEW SYSTEMS SUPPORTABILITY CHARACTERISTICS?

☐ Yes

☐ No

E11.5A1-2 COMMENT ON WHETHER THE IDENTIFIED DESIGN IMPROVEMENTS HAVE THE POTENTIAL FOR REDUCING LOGISTIC SUPPORT REQUIREMENTS, REDUCING COSTS, OR ENHANCING SYSTEM REQUIREMENTS?

☐ Yes

☐ No

E11.5A1-3 ARE THERE DESIGN IMPROVEMENTS TO LOGISTIC ELEMENTS, E.G., SUPPORT EQUIPMENT AND TRAINING DEVICES THAT ARE IDENTIFIED AND CAN BE APPLIED TO INCREASE THE SUPPORT SYSTEM EFFECTIVENESS OR ENHANCE THE SYSTEM READINESS?

☐ Yes

☐ No

E11.5A1-4 HAVE SUPPORTABILITY, COST, AND READINESS VALUES AND DRIVERS BEEN IDENTIFIED, ALONG WITH QUALITATIVE SUPPORTABILITY PROBLEMS FOR COMPARATIVE SYSTEMS FROM TASK 203 OF MIL-STD-1388-1A?

☐ Yes

☐ No

E11.5A1-5 HAVE ASSOCIATED RISKS, VERIFICATION APPROACHES, FUNDING, COST, AND SCHEDULE IMPACTS BEEN IDENTIFIED FOR THE POTENTIAL IMPROVEMENTS?

☐ Yes

☐ No

- E11.5A2 IDENTIFY DESIGN CHANGES FROM USE STUDY 201
- E11.5A2-1 ARE PERTINENT SUPPORTABILITY FACTORS RELATED TO THE INTENDED USE OF THE NEW SYSTEM IDENTIFIED FROM TASK 201 OF MIL-STD-1388-1A?
- ☐ Yes
  - ☐ No
- E11.5A2-2 DOES QUALITATIVE DATA DOCUMENTED TO INCLUDE OPERATING REQUIREMENTS, TRANSPORTATION FACTORS, ALLOWABLE MAINTENANCE PERIODS, ENVIRONMENTAL REQUIREMENTS, AND QUANTITY OF SYSTEMS TO BE SUPPORTED?
- ☐ Yes
  - ☐ No
- E11.5A2-3 ARE SUPPORTABILITY RISKS ASSOCIATED WITH PLANNED NEW TECHNOLOGY DOCUMENTED IN TASK 205, SUPPORTABILITY AND SUPPORTABILITY DESIGN FACTORS, OF MIL-STD-1388-1A?
- ☐ Yes
  - ☐ No
- E11.5A3 PREPLANNED PRODUCT IMPROVEMENT
- E11.5A3-1 HAVE STRATEGIES BEEN DEVELOPED TO INCORPORATE NEW TECHNOLOGIES AS PREPLANNED PRODUCT IMPROVEMENTS INTO NEW SYSTEMS DESIGNS THAT MINIMIZE SUPPORT BURDENS, REDUCE RESOURCE REQUIREMENTS AND SUPPORTABILITY RISKS.
- ☐ Yes
  - ☐ No
- E11.5A3-2 IS THE DESIGN COMPATIBLE TO ENHANCE FUTURE APPLICATION OF PROJECTED TECHNOLOGY?
- ☐ Yes
  - ☐ No

E11.5A4 STATE-OF-THE-ART

E11.5A4-1 ARE CURRENT RELIABILITY, MAINTAINABILITY, AND SUPPORT SYSTEM DESIGN IMPROVEMENTS AVAILABLE FOR OTHER STATEMENT-OF-THE-ART SYSTEMS AND EQUIPMENT UTILIZED AS INPUT TO TASK 204, TECHNOLOGICAL OPPORTUNITIES, OF MIL-STD-1388-1A?

☐ Yes

☐ No

E11.6 ASSESS RAM INFLUENCE ON DESIGN

E11.6A1 IDENTIFY POTENTIAL RAM DESIGN INFLUENCE

E11.6A1-1 ARE THE RELIABILITY (R) AND MAINTAINABILITY (M) PROGRAMS ESTABLISHED BY SELECTION OF SPECIFIC TASKS FROM MIL-STD-785B AND MIL-STD-470A?

☐ Yes

☐ No

E11.6A1-2 ARE SELECTED TASKS ALSO TAILORED TO MEET PROGRAM NEEDS?

☐ Yes

☐ No

E11.6A1-3 DOES THE R&M PROGRAM INCLUDE AN APPROPRIATE MIX OF MANAGEMENT, ENGINEERING, AND ACCOUNTING TASKS WHICH IS BASED ON IDENTIFIED PROGRAM NEEDS?

☐ Yes

☐ No

E11.6A1-4 HAVE APPLICABLE SYSTEM R&M PARAMETERS BEEN DEFINED AND QUANTITATIVE VALUES DETERMINED? (INCLUDE THE DISTINCTION BETWEEN BASIC RELIABILITY REQUIREMENTS FOR ITEM DESIGN.)

☐ Yes

☐ No

- E11.6A1-5 ARE SYSTEM RELIABILITY PARAMETERS DEFINED IN UNITS OF MEASUREMENT DIRECTLY RELATED TO OPERATIONAL READINESS, MISSION SUCCESS, DEMAND FOR MAINTENANCE MANPOWER AND DEMAND FOR LOGISTIC SUPPORT?
- ☐ Yes
  - ☐ No
- E11.6A1-6 ARE PERFORMANCE AND ANALYSIS OF R&M TASKS THAT ARE RELATED AND SIMILAR IN PURPOSE AND OBJECTIVES COORDINATED AND WHERE POSSIBLE, COMBINED?
- ☐ Yes
  - ☐ No
- E11.6A1-7 IS R&M DATA RESULTING FROM APPLICABLE TASKS USED SATISFY THE LSAR REPORTING REQUIREMENTS?
- ☐ Yes
  - ☐ No
- E11.6A1-8 DOES THE CONTRACT SPECIFY HOW R&M VALUES WILL BE TESTED TO ASSURE COMPLIANCE
- ☐ Yes
  - ☐ No
- E11.6A2 RAM GROWTH ANALYSIS
- E11.6A2-1 IS THERE A FORMALIZED RELIABILITY INDICATED VIA GROWTH CURVES AND CONTRACTUAL PROVISIONS TO IDENTIFY AND CORRECT INITIAL DESIGN AND ENGINEERING DEFICIENCIES TO REACH PREDICTED RELIABILITY LEVELS BY ACHIEVING A MATURE SYSTEM PRIOR TO FULL PRODUCTION OR FIELD USE?
- ☐ Yes
  - ☐ No

- E11.6A1-2 IS AN ITERATIVE TEST-FAIL-CORRECT OR TEST-ANALYZE AND FIX PROCESS SPECIFIED FOR RELIABILITY GROWTH?
- o Yes
  - o No
- E11.6A2-3 IS THE STATUS OF IMPLEMENTING CORRECTIVE ACTIONS FOR FAILURES IDENTIFIED TO DATE SUCH THAT THERE IS CONFIDENCE THAT RAM THRESHOLDS WILL BE EXCEEDED PRIOR TO A PRODUCTION DECISION?
- o Yes
  - o No
- E11.6A2-4 IS RELIABILITY GROWTH INCORPORATED INTO THE CONTRACT BY SPECIFYING TASK 104, "FAILURE REPORTING SYSTEM ANALYSIS AND CORRECTIVE ACTION SYSTEM (FRACAS)" AS A PREREQUISITE FOR TASK 302, "RELIABILITY DEVELOPMENT/GROWTH TEST PROGRAM", FROM MIL-STD-785B?
- o Yes
    - Indicate whether MIL-STD-2155 is specified to describe the FRACAS.
  - o No
- E11.6A2-5 ARE TASKS 104, "DATA COLLECTION, ANALYSIS, AND CORRECTIVE ACTION SYSTEM", AND 301, "MAINTAINABILITY DEMONSTRATION" OF MIL-STD-470A, SPECIFIED TO ESTABLISH A DATA COLLECTION AND ANALYSIS SYSTEM, IDENTIFY CORRECTIVE ACTIONS AND EVALUATE TEST RESULTS?
- o Yes
  - o No
- E11.6A2-6 ARE TASKS 104 AND 301 SPECIFIED TO VERIFY THAT DESIGN COMPLIES WITH MAINTAINABILITY DESIGN REQUIREMENTS?
- o Yes
  - o No

E11.6A2-7      IS MIL-STD-471 SPECIFIED TO DESCRIBE THE  
MAINTAINABILITY DEMONSTRATION DETAILS AND  
METHODS?

☐ Yes

☐ No

E11.6A3      RAM ENGINEERING ANALYSIS

E11.6A3-1      IS TASK 204, "FAILURE MODES, EFFECTS, AND  
CRITICALITY ANALYSIS (FMECA)" OF MIL-STD-785B,  
PLUS MIL-STD-1629A, AND DI-R-7085A SPECIFIED  
TO IDENTIFY POTENTIAL DESIGN WEAKNESSES?

☐ Yes

☐ No

E11.6A3-2      IS THE FMECA SCHEDULED SO THAT THE DESIGN  
TRADE-OFFS REFLECT ANALYSIS CONCLUSIONS AND  
RECOMMENDATIONS?

☐ Yes

☐ No

E11.6A3-3      DOES THE FMECA IDENTIFY CATASTROPHIC AND  
CRITICAL FAILURE POSSIBILITIES REQUIRING  
ELIMINATION OR MINIMIZING BY DESIGN?

☐ Yes

☐ No

E11.6A3-4      ARE DESIGN FEATURES IDENTIFIED BY FMECA TO  
DETECT AND ISOLATE FAILURES OR IMPENDING  
FAILURES?

☐ Yes

☐ No

- E11.6A3-5 ARE DESIGN REQUIREMENTS OR OPERATOR ACTIONS IDENTIFIED BY FMECA TO CIRCUMVENT OR MITIGATE FAILURE EFFECTS?
- o Yes
  - o No
- E11.6A3-6 IS TASK 205, "SNEAK CIRCUIT ANALYSIS", OF MIL-STD-785B SPECIFIED FOR COMPONENTS AND CIRCUITRY WHICH ARE CRITICAL TO MISSION SUCCESS AND SAFETY?
- o Yes
    - Consider the identification of latent paths which cause occurrence of unwanted functions or inhibit desired functions with all components functioning properly.
  - o No
- E11.6A3-7 IS RELIABILITY CENTERED MAINTENANCE (RCM) ANALYSIS PER AMC-P 750-2 SPECIFIED TO IDENTIFY MAINTENANCE PROBLEM AREAS FOR REDESIGN CONSIDERATION?
- o Yes
  - o No
- E11.6A4 RAM ACCOUNTING ANALYSIS
- E11.6A4-1 ARE QUANTITATIVE R&M REQUIREMENTS ESTABLISHED AND ALLOCATED, PREDICTED AND MEASURED BASED ON ACCOUNTING TASKS IN TABLE A-1, "APPLICATION MATRIX", OF MIL-STD-785B AND 470A?
- o Yes
  - o No
- E11.6A4-2 ARE R&M ALLOCATIONS AND PREDICTIONS FROM TASKS 202 AND 203 BASED ON MATH MODELS FROM TASK 201 OF MIL-STD-785B AND 470A TO APPORTION HIGHER ORDER REQUIREMENTS TO CONSTITUENT ELEMENTS?
- o Yes
  - o No

- E11.6A4-3 WHERE R&M PREDICTIONS INDICATE EQUIPMENT R&M CHARACTERISTICS THAT ARE SHORT OF REQUIREMENTS, IS CORRECTIVE ACTION IN DESIGN IDENTIFIED AND IMPLEMENTED?
- ☐ Yes
  - ☐ No
- E11.6A4-4 ARE MAINTAINABILITY ALLOCATIONS BASED ON RELIABILITY ALLOCATIONS AND FAILURE RATE ESTIMATES?
- ☐ Yes
  - ☐ No
- E11.6A4-5 HAVE ENGINEERING TESTS BEEN INCLUDED TO MEASURE R&M PARAMETERS THAT WILL DISCLOSE DEFICIENCIES IN SYSTEM DESIGN?
- ☐ Yes
  - ☐ No
- E11.6A4-6 DOES THE TEST PROGRAM EXAMINE MATERIEL AND WORKMANSHIP PRACTICES AND PROVIDE ASSURANCE THAT MINIMUM ACCEPTABLE R&M REQUIREMENTS HAVE BEEN MET?
- ☐ Yes
  - ☐ No
- E11.6A5 LIFE CYCLE RAM PLANNING
- E11.6A5-1 ARE SYSTEM LEVEL R&M REQUIREMENTS AND CONSTRAINTS IDENTIFIED IN THE EARLY LIFE CYCLE PHASE?
- ☐ Yes
    - Determine whether a RAM rationale report has been prepared and coordinated in accordance with TRADOC/AMC PAM 70-11.
  - ☐ No

- E11.6A5-2 ARE QUANTITATIVE AND QUALITATIVE R&M REQUIREMENTS FOR SUBSYSTEMS AND COMPONENTS DIRECTLY RELATED OR TRACEABLE TO SYSTEM LEVEL REQUIREMENTS, AS WELL AS MISSION AND SAFETY REQUIREMENTS?
- ☐ Yes
  - ☐ No
- E11.6A5-3 IS THE SCHEDULE OF R&M ACHIEVEMENT MILESTONES AND MONITORING POINTS TIME-PHASED TO SUPPORT SYSTEM DESIGN AND WITH PROGRAM MILESTONES?
- ☐ Yes
  - ☐ No
- E11.6A5-4 IS MONITORING TO DETERMINE CONFORMANCE TO SPECIFIED REQUIREMENTS ACCOMPLISHED BY CONDUCTING INFORMAL AND FORMAL DESIGN REVIEWS, BY APPROVAL OF SUBMITTED DATA ITEMS, AND BY REVIEW OF PROGRESS REPORTS?
- ☐ Yes
  - ☐ No
- E11.6A5-5 ARE R&M ANALYSES INITIALLY PERFORMED PRIOR TO HARDWARE FABRICATION TO EFFECT DESIGN CHANGES WITH MINIMUM MODIFICATION COSTS?
- ☐ Yes
  - ☐ No
- E11.6A5-6 IS AN INITIAL SYSTEM LEVEL FMEA PERFORMED IN THE EARLY LC PHASE AND THEN CARRIED TO THE EQUIPMENT LEVEL IN SUBSEQUENT PHASES?
- ☐ Yes
  - ☐ No

- E11.6A5-7 IS A PARTS CONTROL AND APPLICATION PROGRAM INCLUDED TO INCREASE THE PROBABILITY OF ACHIEVING AND MAINTAINING INHERENT R&M AND MINIMIZING PARTS PROLIFERATION AND LOGISTICS SUPPORT COSTS?
- ☐ Yes
  - ☐ No
- E11.6A5-8 ARE R&M DESIGN PROBLEMS OR POTENTIAL PROBLEMS REVEALED BY SPECIFIED ANALYSES AND DETECTED BY TECHNICAL TESTING?
- ☐ Yes
  - ☐ No
- E11.6A5-9 IS ACCEPTANCE AND FAILURE CRITERIA ESTABLISHED FOR R&M TESTING AND/OR DEMONSTRATIONS?
- ☐ Yes
  - ☐ No
- E11.6A5-10 ARE R&M PROGRAM AND DESIGN REVIEWS SCHEDULED TO PRECEDE IMPLEMENTATION OF THE DESIGN?
- ☐ Yes
  - ☐ No
- E11.6A5-11 DOES DESIGN REVIEW MATERIEL INCLUDE CURRENT ANALYSIS RESULTS WITH SUPPORTING DOCUMENTATION?
- ☐ Yes
  - ☐ No
- E11.6A5-12 ARE R&M PROGRAM PLANS PER TASK 101 OF MIL-STD-785B AND 470A SPECIFIED TO ESTABLISH TIME-PHASED R&M TASKS AND THE SCOPE OF EACH TASK?
- ☐ Yes
  - ☐ No

- E11.6A5-13      ARE TECHNICAL REVIEWS AND AUDITS SPECIFIED AS IDENTIFIED IN MIL-STD-1521?
- o Yes
  - o No
- E11.6A6      APPORTIONING
- E11.6A6-1      ARE R&M MODELS IDENTIFIED FOR THE SYSTEM, SUBSYSTEM, AND EQUIPMENT FOR MAKING NUMERICAL APPORTIONMENTS AND ESTIMATES OF BASIC AND MISSION RELIABILITY AND MAINTAINABILITY PARAMETERS?
- o Yes
  - o No
- E11.6A6-2      ARE THE R&M ALLOCATIONS BASED ON MATH MODELS AND BLOCK DIAGRAMS AND DO THEY APPORTION HIGHER ORDER REQUIREMENTS TO CONSTITUENT ELEMENTS?
- o Yes
  - o No
- E11.6A6-3      DO MAINTAINABILITY ALLOCATIONS FOLLOW RELIABILITY ALLOCATIONS WITH RESULTANT FAILURE RATE ESTIMATES AS INPUTS?
- o Yes
  - o No
- E11.6A6-4      ARE TASKS 201, 202, AND 203 OF MIL-STD-785B AND 740A SPECIFIED TO CONDUCT R&M MODELING ALLOCATIONS AND PREDICTIONS?
- o Yes
  - o No
- E11.6A6-5      ARE R&M REQUIREMENTS INCLUDED IN SPECIFICATIONS WHICH ARE CONSISTENT WITH ALLOCATIONS TO LOWER INDENTURE LEVELS?
- o Yes
  - o No

- E11.6A6-6 HAVE THE TESTABILITY DESIGN OBJECTS, GOALS AND THRESHOLD FOR THE SYSTEM BEEN MET (E.G., ISOLATE TO A SINGLE LRV 90% OF THE TIME OR PERFORM SYSTEM CHECK WITHIN 30 SECONDS AFTER POWER UP)?
- o Yes
    - Identify the testability design objectives.
    - Discuss how each objective or goal has been met.
  - o No
    - Identify any design deficiencies that cause the testability objectives not to be met.
    - Identify any technology advances which could be exploited to improve the testability of the system.
- E11.6A6-7 WHAT ARE THE BIT, TEST EQUIPMENT, AND SUPPORTABILITY CONSTRAINTS OF THE NEW SYSTEM?
- o Explain the constraints that exist in each area.
- E11.6A6-8 HAVE ALTERNATE TESTABILITY CONCEPTS BEEN CONSIDERED AND TRADED-OFF?
- o Yes
    - What concepts were traded-off and what criteria were used to make the decision to select one concept over another?
  - o No
    - Explain if developing alternative testability concepts would improve system supportability.
- E11.6A6-9 ARE (OR HAVE) TESTABILITY REQUIREMENTS BEEN DEMONSTRATED AND VERIFIED?
- o Yes
    - Did the Operating System detect the presence of errors?
    - Discuss the ability of the system or subsystem BIT to detect and isolate failures.
    - Discuss the compatibility of each UUT with the selected test equipment.
    - Discuss the ability of the test equipment and associated TFSs to detect and isolate failures.

- o No
  - Explain how the Operating System will be evaluated to detect the presence of errors.
  - Explain how the system/subsystem will be evaluated to show: how BIT will detect and isolate failures; the compatibility of each UUT with the test equipment; the ability of the test equipment and TPSs to detect and isolate failures; and the compatibility of off-line test results with BIT detector and fault isolation of failed components.

E11.6A7 MAINTAINABILITY EVALUATION

E11.6A7-1 HAVE THE INHERENT OR BUILT-IN MAINTAINABILITY DESIGN REQUIREMENTS BEEN ADEQUATELY MET?

- o Yes
- o No

E11.6A7-2 HAS THE SYSTEM DESIGN FOR MAINTAINABILITY BEEN WELL THOUGHT OUT (E.G., USE OF MODULAR SUBSYSTEMS AND STANDARDIZATION OF PARTS) IN ORDER TO SIMPLIFY MAINTENANCE FUNCTIONS (E.G., REPAIR, ADJUST, REPLACE, CALIBRATE, ETC.) FOR ORGANIZATION AND INTERMEDIATE LEVEL MAINTAINERS?

- o Yes
- o No

E11.6A7-3 DOES THE DESIGN SUPPORT EASE OF ACCESS TO THE LOWEST REPLACEABLE ASSEMBLIES, ACCOMPLISHED WITHIN REASONABLE TIME USING COMMON TOOLS AND AVERAGE SKILLS?

- o Yes
- o No

E11.6A7-4 HAVE THE MINIMUM DOWNTIME REQUIREMENTS TO ACCOMPLISH MAINTENANCE ACTIONS BEEN MET?

- o Yes
- o No

- E11.6A7-5      HAVE THE REQUIRED SKILL LEVELS TO PERFORM,  
ORGANIZATIONAL AND INTERMEDIATE LEVEL MAINTENANCE  
BEEN IDENTIFIED?
- o Yes
  - o No
- E11.6A7-6      HAVE ALL REQUIRED TOOLS, TMDE, EQUIPMENT AND  
FACILITIES BEEN IDENTIFIED AND VALIDATED?
- o Yes
  - o No
- E11.6A7-7      HAVE SAFETY CONSIDERATIONS BEEN MADE FOR ALL  
MAINTENANCE TASKS?
- o Yes
  - o No
- E11.6A7-8      HAVE THE NECESSARY CORRECTION FACTORS, ADJUSTMENT  
AND REDUNDANT ITEMS BEEN INCLUDED IN THE DESIGN  
IN ORDER TO REDUCE MAINTENANCE DOWNTIME?
- o Yes
  - o No
- E11.6A7-9      OVERALL, DOES THE MAINTAINABILITY EVALUATION  
ADEQUATELY TRANSLATE MAINTAINABILITY REQUIREMENTS  
AND ANTICIPATED OPERATIONAL CONSTRAINTS INTO  
PRACTICAL AND EFFECTIVE HARDWARE DESIGNS?
- o Yes
  - o No
- E11.7A1      DESIGN INFLUENCE INTERFACE
- E11.7A1.1      DETERMINE AND EXPLAIN THE SUITABILITY AND  
COMPLIANCE WITH INTERFACE REQUIREMENTS DESCRIBED  
IN THE LSA PLAN, TASK 102.

E11.7A2      INTERFACE TMDE & TEST EQUIPMENT

E11.7A2-1      COMMENT ON WHETHER THE SYSTEM AND SUPPORT CONCEPTS WERE DEVELOPED TO MAXIMIZE USE OF SUPPORT AND TEST EQUIPMENT ALREADY AVAILABLE IN THE TOE/TDA, ARMY INVENTORY, OTHER SERVICES, OR THE COMMERCIAL MARKET (IN DESCENDING ORDER OF DESIRABILITY).

E11.7A2-2      IF A SYSTEM-PECULIAR SUPPORT ITEM IS REQUIRED, HAS APPROVAL BEEN OBTAINED FROM THE APPROPRIATE ARMY ACTIVITY PRIOR TO INITIATING DEVELOPMENT?

o Yes

o No

E11.7A2-3      IS LSA TASK 202 SPECIFIED TO DEFINE SYSTEM DESIGN CONSTRAINTS BASED ON EXISTING AND PLANNED LOGISTIC SUPPORT RESOURCES AND SUPPORT STANDARDIZATION CONSIDERATIONS?

o Yes

o No

E11.7A3      CRITICAL SUPPORT CHARACTERISTICS

E11.7A3-1      COMMENT ON WHETHER THERE ARE SUPPORTABILITY PROBLEMS IDENTIFIED ON COMPARATIVE SYSTEMS FROM LSA TASK 203 OF MIL-STD-1388-1A WHICH SHOULD BE PREVENTED ON THE NEW SYSTEM/EQUIPMENT.

E11.7A3-2      ARE SUPPORTABILITY, COST, AND READINESS DRIVERS ESTABLISHED FOR THE NEW SYSTEM FROM LSA TASK 203 BASED ON COMPARATIVE SYSTEMS/EQUIPMENT?

o Yes

o No

E11.7A3-3      ARE QUALITATIVE AND QUANTITATIVE SUPPORTABILITY AND SUPPORTABILITY-RELATED DESIGN CONSTRAINTS IDENTIFIED AND UPDATED FOR THE NEW SYSTEM FROM LSA TASK 205?

o Yes

o No

- E11.7A3-4 HAVE THE FUNCTIONAL REQUIREMENTS AND OPERATIONS AND MAINTENANCE TASK IDENTIFICATIONS FROM LSA TASK 301 BEEN COMPLETED WITHOUT INDICATING DESIGN DEFICIENCIES THAT REQUIRE REDESIGN?
- o Yes
  - o No
- E11.7A3-5 DOES LSA TASK 303 SHOW THAT THERE ARE NO LIMITING CONSTRAINTS, CHARACTERISTICS, AND ENVIRONMENTS FOR EACH OF THE MODES OF TRANSPORTATION IDENTIFIED?
- o Yes
  - o No
- E11.7A3-6 ARE NEW OR CRITICAL LOGISTIC SUPPORT RESOURCES REQUIRED TO PERFORM OPERATION AND MAINTENANCE TASKS IDENTIFIED FROM LSA TASK 401?
- o Yes
  - o No
- E11.7A3-7 IS THE DESIGN OPTIMIZED WITHOUT THE NEED FOR IDENTIFYING ALTERNATIVES TO SIMPLIFY OPERATIONS AND MAINTENANCE TASKS OR TO BRING TASK REQUIREMENTS WITHIN ACCEPTABLE LEVELS?
- o Yes
    - Have design alternatives been considered to resolve identified transportability problems?
    - Determine whether system/equipment sectionalization to meet existing transportation system capability has been considered.
  - o No
- E11.7A3-8 IS DOCUMENTED INFORMATION VALIDATED BY DEMONSTRATION AND TESTS TO ASSESS THE ACHIEVEMENT OF SUPPORTABILITY REQUIREMENTS FROM LSA TASK 501?
- o Yes
  - o No

E11.7A3-9        HAVE MODIFICATIONS TO HARDWARE OR SOFTWARE  
DEVELOPED TO CORRECT SUPPORTABILITY PROBLEMS  
UNCOVERED DURING TEST AND EVALUATION BEEN  
IMPLEMENTED AND VERIFIED THROUGH FURTHER TESTING?

☐ Yes

☐ No

E11.7A4        ILS CONSTRAINT ANALYSIS

E11.7A4-1        IS PROPER ATTENTION GIVEN TO EACH ILS ELEMENT AND  
AND HOW IT INTEGRATES WITH OTHERS IN ORDER TO  
ASSURE A FULLY SUPPORTABLE MATERIEL SYSTEM?

☐ Yes

☐ No

E11.7A4-2        ARE THE EFFECTS ON THE ESTABLISHED OR PLANNED  
TOTAL ARMY MANPOWER, PERSONNEL, TRAINING  
FACILITIES AND LOGISTICS SYSTEM CONSIDERED FOR  
PROPOSED AND/OR ESTABLISHED SYSTEM SUPPORT?

☐ Yes

☐ No

E11.7A4-3        ARE ILS CONSTRAINTS IDENTIFIED IN THE O&O PLAN,  
REQUIRED OPERATIONAL CAPABILITY (ROC) AND OTHER  
MATERIEL REQUIREMENT DOCUMENTS?

☐ Yes

☐ No

E11.7A4-4        IS THE LSA PROGRAM ESTABLISHED TO IDENTIFY ANY  
EXISTING OR PROPOSED SUPPORT STRUCTURE AND ANY  
ASSOCIATED CONSTRAINTS AS SUPPORT DESIGN  
INFLUENCE?

☐ Yes

☐ No

E11.7A4-5 DO DESIGN SOLUTIONS FORMULATED FOR OPERATIONS AND MAINTENANCE TASKS MEET ILS CONSTRAINTS?

o Yes

o No

E11.7A4-6 IS THE USE OF STANDARD ARMY, OTHER MILITARY SERVICES, OR ALLIED MATERIEL SYSTEMS, COMPONENTS, REPAIR PARTS, AND SUPPORT AND TEST EQUIPMENT EMPHASIZED?

o Yes

o No

E11.7A4-7 IS DESIGN, DEVELOPMENT, DELIVERY, INSTALLATION AND LOGISTIC SUPPORT OF REQUIRED TRAINING

E11.7A5 TRANSPORTABILITY INFLUENCE

E11.7A5-1 HAS THE SYSTEM BEEN DESIGNED TO MEET THE TRANSPORTABILITY REQUIREMENT FOR HIGHWAY, RAIL, MARINE, AIRCRAFT, AND TRANSPORT?

o Yes

- Which modes of transport are applicable?
- Explain the test results that confirm that the requirement has been met.

o No

- Explain the effect on meeting the transportability requirement for the system to fulfill its mission.
- How will the inability of the system to be transported in a designated mode be met?

E11.7A5-2 ARE TRANSPORTABILITY LIMITATIONS SUCH AS SIZE, SHAPE, AND WEIGHT CONSIDERED DURING SYSTEM DESIGN TO CONFORM TO MIL-STD-366 AND MIL-ADBX-157? (ALSO CONSIDER REQUIREMENTS FOR SECTIONALIZATION, SPECIAL HANDLING, AND TRANSPORT STORAGE AND SECURITY NEEDS)

o Yes

o No

- E11.7A5-3      IS THE SYSTEM DESIGN IN ITS SHIPPING CONFIGURATION SUITABLE FOR MOVEMENT TO THE ULTIMATE DESTINATION VIA AVAILABLE AND AUTHORIZED TRANSPORTATION MODES?
- o Yes
  - o No
- E11.7A5-4      HAS THE SYSTEM BEEN DESIGNED TO MEET THE SECTIONALIZATION AND DISASSEMBLY REQUIREMENTS OF AR 70-47?
- o Yes
  - o No
    - Explain how the design must be changed to meet those requirements.
- E11.7A5-5      HAVE LOAD, TIEDOWN, SUSPENSION, AND EXTRACTOR REQUIREMENTS BEEN MET?
- o Yes
  - o No

E11.7A6    FACILITIES INFLUENCE

- E11.7A6-1      IS THE DESCRIPTION OF EXISTING OPERATING AND SUPPORT FACILITIES CHARACTERISTICS AND AVAILABILITY AT THE PROJECTED SYSTEM DEPLOYMENT LOCATIONS PROVIDED TO THE CONTRACTOR TO INFLUENCE SYSTEM DESIGN?
- o Yes
  - o No
- E11.7A6-2      HAVE NEW OR MODIFIED OPERATIONAL OR SUPPORT FACILITY REQUIREMENTS BEEN IDENTIFIED?
- o Yes
  - o No

E11.7A6-3        HAVE ALL POTENTIAL DESIGN TRADE-OFFS TO MINIMIZE  
THE NEED FOR THESE FACILITIES BEEN INVESTIGATED  
AND THE OPTIMUM DESIGN SELECTED?

☐ Yes

☐ No

E11.8        ASSESS ECONOMICS INFLUENCE ON DESIGN

E11.8A1    IDENTIFY AREAS OF ECONOMIC INFLUENCE

E11.8A1-1        HAVE ALL AREAS OF ECONOMIC INFLUENCE ON DESIGN,  
INCLUDING COST AND PERFORMANCE FACTORS BEEN  
CONSIDERED? (COST FACTORS INCLUDE INVENTORY  
SUPPORT AND TEST EQUIPMENT, SPACE REQUIREMENTS,  
LABOR TRAINING, SPARE PARTS AND DOCUMENTATION  
SUCH AS TECHNICAL MANUALS. PERFORMANCE FACTORS  
TO QUANTITATIVE RAM PARAMETERS.)

☐ Yes

☐ No

E11.8A2    PROGRAM FUNDING

E11.8A2-1        DO THE PROGRAM MANAGEMENT DOCUMENTS CONTAIN  
FUNDING INFORMATION WHICH HAS BEEN UPDATED  
THROUGHOUT THE PHASES OF THE MATERIEL  
ACQUISITION PROCESS?

☐ Yes

☐ No

E11.8A2-2        DOES THE SYSTEM CONCEPT PAPER (SCP), WHICH IS  
THE DECISION DOCUMENT PREPARED FOR MILESTONE  
I, INCLUDE RESULTS OF COST-EFFECTIVENESS  
ANALYSIS FOR ALTERNATIVES CONSIDERED AND VERIFY  
THAT THE SELECTED ALTERNATIVE IS AFFORDABLE?

☐ Yes

☐ No

- E11.8A2-3 DOES THE DECISION COORDINATING PAPER (DCP), WHICH IS PREPARED FOR MILESTONES II & III, SUMMARIZE THE SAME AREAS AS IN THE SCP PLUS, AT MILESTONE II, VERIFY THAT FUTURE COST AND SCHEDULE ARE DEFINED IN DETAIL AND ARE CREDIBLE?
- o Yes
  - o No
- E11.8A2-4 DOES THE ILS PLAN (ILSP) AND SOLICITATION DOCUMENTS DESCRIBE HOW ILS INCLUDING LIFE CYCLE COST WILL INFLUENCE MATERIEL DESIGN AND DECISIONS WITHIN THE "DESIGN INFLUENCE" ILS ELEMENT PLAN?
- o Yes
  - o No
- E11.8A2-5 ARE ILS-RELATED LIFE CYCLE FUNDING REQUIREMENTS IDENTIFIED UNDER "SUPPORT RESOURCE FUNDS" OF ILS ELEMENT PLANS?
- o Yes
    - Determine the funded and unfunded ILS element.
    - What ILS element funding shortfalls exist?
  - o No
- E11.8A2-6 DOES LSA TASK 101 OF MIL-STD-1388-1A INCLUDE A COST ESTIMATE TO PERFORM EACH PROPOSED LSA TASK AND SUBTASK AND THEIR COST EFFECTIVENESS?
- o Yes
  - o No
- E11.8A3 LCC INFLUENCE
- E11.8A3-1 DOES THE SYSTEM LIFE CYCLE COST (LCC) INCLUDE THE REQUIRED THREE PROGRAM COST CATEGORIES FOR TOTAL COST OF OWNERSHIP? [RESEARCH AND DEVELOPMENT (R&D) INVESTMENT, OPERATION AND SUPPORT (O&S)]
- o Yes
  - o No

- E11.8A3-2 DO R&D COSTS INCLUDE ENGINEERING DESIGN, ANALYSIS, DEVELOPMENT, TEST, EVALUATION AND MANAGEMENT EFFORTS FOR RESULTANT PRODUCTS TO BRING A MATERIEL SYSTEM FROM CONCEPT TO PRODUCTION?
- ☐ Yes
  - ☐ No
- E11.8A3-3 DO INVESTMENT COSTS INCLUDE PRODUCTS AND SERVICES NECESSARY TO TRANSFORM THE RESULTS OF R&D INTO A FULLY OPERATIONAL SYSTEM CONSISTING OF THE HARDWARE, TRAINING, AND SUPPORT ACTIVITIES NECESSARY TO INSTITUTE OPERATIONS?
- ☐ Yes
  - ☐ No
- E11.8A3-4 DO O&S COSTS INCLUDE THOSE COSTS RESULTING FROM THE OPERATION, MAINTENANCE, AND CONSUMPTION OF MATERIALS AND SUPPLIES OF A SYSTEM AFTER IT BECOMES A PART OF THE INVENTORY?
- ☐ Yes
  - ☐ No
- E11.8A3-5 DOES THE BASELINE COST ESTIMATE (BCE) ADDRESS THE COST OF ACQUISITION PLUS OWNERSHIP (INCLUDING OPERATING COSTS) AND SPECIFY DESIRED UNIT COSTS FOR USE IN ESTIMATING COST PARAMETERS AND ESTABLISHING DESIGN-TO-UNIT PRODUCTION COST GOALS?
- ☐ Yes
  - ☐ No
- E11.8A3-6 DOES THE BCE AND CURRENT ESTIMATES INCLUDE COSTS FOR ILS ELEMENTS REQUIRED FOR THE SYSTEM?
- ☐ Yes
  - ☐ No

E11.8A3-7 ARE COST-EFFECTIVENESS ANALYSIS CONDUCTED  
FOR SUPPORT ALTERNATIVES AND LCC ESTIMATES  
DEVELOPED FOR TRADE-OFF ALTERNATIVES?

☐ Yes

☐ No

E11.8A4 O&S COST REDUCTION INFLUENCE

E11.8A4-1 ARE READINESS AND SUPPORT COST DRIVERS  
IDENTIFIED EARLY IN THE PROGRAM WITH COST AND  
READINESS IMPROVEMENT TARGETS BY LSA TASKS  
203, AND 204 OF MIL-STD-1388-IA?

☐ Yes

☐ No

E11.8A4-2 ARE COST AND SUPPORT TREATED AS EQUAL  
CONSIDERATIONS WITH PERFORMANCE AND SCHEDULE?

☐ Yes

☐ No

E11.8A4-3 ARE ILS INITIATIVES BEING FUNDED TO REDUCE O&S  
COSTS THROUGH RAM-D IMPROVEMENTS IN THE SYSTEM  
TO IMPROVE/REDUCE ITS SUPPORT STRUCTURE?

☐ Yes

☐ No

E11.8A4-4 FOR SYSTEMS INVOLVING SOLDIERS AND MACHINES, IS  
THE COST OF PERSONNEL RESOURCES AND TRAINING  
INCLUDED IN CONSIDERATIONS OF ALTERNATE SYSTEMS  
AND FOR THE SELECTED SYSTEM DURING SUBSEQUENT  
STAGES?

☐ Yes

☐ No

- E11.8A4-5      HAVE SYSTEM DESIGN ALTERNATIVES BEEN CONSIDERED THAT REALIZE O&S COST SAVINGS THROUGH MANPRINT-DRIVEN ENGINEERING DESIGN FEATURES THAT REDUCE SUPPORT DEMANDS, INCLUDING MANPOWER, PERSONNEL, OR TRAINING REQUIREMENTS?
- o Yes
  - o No
- E11.8A4-6      ARE DESIGN CONSTRAINTS DEVELOPED FOR IDENTIFIED EXISTING AND PLANNED LOGISTIC SUPPORT RESOURCES HAVING POTENTIAL STANDARDIZATION BENEFITS BY IMPOSITION OF LSA TASK 202 OF MIL-STD-1388-1A?
- o Yes
  - o No
- E11.8A4-7      ARE OPERATION AND MAINTENANCE FUNCTIONS WHICH ARE SUPPORTABILITY, COST, AND READINESS DRIVERS IDENTIFIED BY LSA TASK 301 OF MIL-STD-1388-1A?
- o Yes
    - Determine whether there are adequate plans for system redesign to reduce the need for these functions.
  - o No
- E11.8A4-8      ARE DESIGN DEFICIENCIES BASED ON OPERATIONS AND MAINTENANCE FUNCTIONS AND TASKS IDENTIFIED TOGETHER WITH CORRECTING DESIGN ALTERNATIVES WHICH REDUCE LOGISTIC SUPPORT RESOURCE REQUIREMENTS BY LSA TASK 301?
- o Yes
  - o No

E11.8A5 DESIGN FOR DISCARD

E11.8A5-1 DOES SYSTEM DESIGN FACILITATE A MAINTENANCE POLICY TO ACCOMPLISH CORRECTIVE MAINTENANCE BELOW DEPOT LEVEL PRIMARILY BY REPLACEMENT OF MODULES (COMPONENTS AND ASSEMBLIES) RATHER THAN PIECE/PARTS?

☐ Yes

☐ No

E11.8A5-2 FOR ITEMS THAT ARE NONREPAIRABLE, BUT REPLACED BY A LIKE SPARE, DOES THE DESIGN PROVIDE A RELIABLE POSITIVE SELF-TEST CAPABILITY TO ELIMINATE REQUIREMENTS FOR ANCILLARY TEST EQUIPMENT AND INSURE THAT GOOD UNITS ARE NOT DISCARDED?

☐ Yes

☐ No

E11.8A5-3 DOES THE NONREPAIRABLE ITEM DESIGN INCORPORATE HERMETIC SEALING OR ENCAPSULATION OF ALL ITEM COMPONENTS TO IMPROVE RELIABILITY AND PROTECT AGAINST HUMIDITY AND CORROSION?

☐ Yes

☐ No

E11.8A5-4 WHEN AN ASSEMBLY IS REPARABLE BY REMOVAL AND REPLACEMENT OF SUBASSEMBLIES ARE THE SUBASSEMBLIES DESIGNED AS THROWAWAY ITEMS?

☐ Yes

☐ No

E11.8A5-5 ARE SELECTED ITEMS SUBJECTED TO A LEVEL OF REPAIR ANALYSIS (LORA) AS EARLY AS POSSIBLE IN THE ACQUISITION PROGRAM TO ISOLATE ITEMS WHICH SHOULD CLEARLY BE DESIGNED FOR DISCARD FROM THOSE THAT MAY BE DESIGNED FOR REPAIR?

☐ Yes

☐ No

E11.8A6 LORA

E11.8A6-1 IS A LORA PROGRAM SPECIFIED BY IMPOSITION OF LSA SUBTASK 303.2.7 OF MIL-STD-1388-1A OR AMC-R 700-27 (LEVEL OF REPAIR ANALYSIS (LORA) PROGRAM) DURING EACH PHASE OF THE MATERIEL ACQUISITION TO EVOLVE A DESIGN THAT CONSIDERS THE ECONOMIC AND NON-ECONOMIC FACTORS OF SUPPORT ALTERNATIVES?

☐ Yes

☐ No

E11.8A6-2 ARE ONLY APPROVED LORA MODELS/TECHNIQUES UTILIZED FOR CONDUCTING LORA EVALUATIONS?

☐ Yes

☐ No

E11.8A6-3 DOES THE LORA PROGRAM PLAN INDICATE TIME PHASING AND THE COORDINATION WITH RELATED ELEMENTS OF THE OVERALL SYSTEM ENGINEERING EFFORT?

☐ Yes

☐ No

E11.8A6-4 IS A LORA REPORT SPECIFIED TO DOCUMENT AND SUPPORT RECOMMENDATIONS FOR REPAIR LEVEL AND DISCARD DETERMINATION WITH RATIONALE FOR THE DECISION?

☐ Yes

☐ No

E11.8A6-5 ARE LORA EVALUATIONS BASED ON ECONOMIC CONSIDERATIONS INCLUDING COST AND PERFORMANCE FACTORS IN USING A LORA MODEL AS WELL AS NON-ECONOMIC CONSIDERATIONS SUCH AS SAFETY AND DESIGN CONSTRAINTS FOR LEVEL OF REPAIR/DISCARD DECISIONS?

☐ Yes

☐ No

E11.8A7 ENERGY REQUIREMENTS

- E11.8A7-1 IS LSA SUBTASK 303.2.10. OF MIL-STD-1388-1A SPECIFIED TO CONDUCT EVALUATIONS AND TRADEOFFS BETWEEN SYSTEM/EQUIPMENT ALTERNATIVES AND ENERGY REQUIREMENTS?
- o Yes
    - Determine if conduct of sensitivity analysis on POL costs is included.
  - o No
- E11.8A7-2 WAS ENERGY COST DETERMINED TO BE A PRIME COST DRIVER FROM COMPARATIVE SYSTEMS?
- o Yes
  - o No
- E11.8A7-3 DOD ENERGY COST REPRESENT A DRIVER FOR THE NEW SYSTEM/EQUIPMENT?
- o Yes
  - o No
- E11.8A7-4 ARE APPLICABLE ENERGY RELATED DESIGN CONSTRAINTS ESTABLISHED BASED ON POL RESOURCES THAT WILL BE AVAILABLE WHEN THE NEW SYSTEM/EQUIPMENT IS FIELDDED?
- o Yes
  - o No
- E11.8A7-5 IS SUFFICIENT TESTING PLANNED TO VERIFY ACHIEVEMENT OF THESE CONSTRAINTS?
- o Yes
  - o No
- E11.8A7-6 HAVE CONSTRAINTS BEEN MET OR APPROPRIATE CORRECTIVE ACTION PLANNED?
- o Yes
  - o No

E11.8A8 TRADE OFF ANALYSES

- E11.8A8-1 ARE TRADE-OFF ANALYSES CONDUCTED TO DETERMINE THE OPTIMUM BALANCE BETWEEN SYSTEM COST, SCHEDULE, PERFORMANCE, AND SUPPORTABILITY?
- ☐ Yes
  - ☐ No
- E11.8A8-2 IS LSA TASK 303 OF MIL-STD-1388-1A SPECIFIED AS A FACTOR IN ALTERNATIVE SYSTEM TRADE-OFFS TO DETERMINE THE BEST APPROACH FOR SUPPORT, DESIGN AND OPERATION to SATISFIES THE SYSTEM NEED?
- ☐ Yes
  - ☐ No
- E11.8A8-3 ARE TRADE-OFFS CONDUCTED BETWEEN SUPPORT SYSTEM ALTERNATIVES IDENTIFIED FOR EACH SYSTEM/EQUIPMENT ALTERNATIVE TO IDENTIFY ANY NEW OR CRITICAL LOGISTIC SUPPORT RESOURCE REQUIREMENTS?
- ☐ Yes
  - ☐ No
- E11.8A8-4 ARE OPTIMUM TRAINING REQUIREMENTS AND DIAGNOSTIC CONCEPTS PROVIDED FROM TOA'S BY IMPOSITION OF LSA SUBTASKS 303.2.6. AND 303.2.8 OF MIL-STD-1388 1A?
- ☐ Yes
  - ☐ No
- E11.8A8-5 ARE RESULTS OF TOAs BETWEEN SYSTEM/EQUIPMENT ALTERNATIVES AND ENERGY REQUIREMENTS, SURVIVABILITY AND BATTLE DAMAGE REPAIR CHARACTERISTICS, AND TRANSPORTABILITY REQUIREMENTS AVAILABLE BY IMPOSITION OF LSA SUBTASKS 303.2.10, .11, & .12 OF MIL-STD-1388-1A?
- ☐ Yes
  - ☐ No

- E11.8A8-6 ARE TRADE-OFFS CONDUCTED IN INITIAL PHASES OF MATERIAL ACQUISITION BETWEEN SYSTEM CHARACTERISTICS AND SUPPORT CONCEPTS TO MEET PEACETIME READINESS AND WARTIME EMPLOYMENT OBJECTIVES AND TO ESTABLISH FIRM GOALS AND THRESHOLDS FOR SUPPORT AND RAM PARAMETERS?
- ☐ Yes
  - ☐ No
- E11.8A8-7 ARE TRADEOFFS BETWEEN DESIGN, RAM, MANPOWER AND OTHER SUPPORT-RELATED GOALS CONDUCTED TO CONFIRM THE SYSTEM OPERATIONAL AND SUPPORT CONCEPT DURING FULL SCALE DEVELOPMENT OR EQUIVALENT PHASE?
- ☐ Yes
  - ☐ No
- E11.8A8-8 ARE DESIGN, OPERATIONAL, AND SUPPORT OBJECTIVES (WHICH ARE QUALITATIVE OR QUANTITATIVE VALUES OR RANGE OF VALUES WHICH REPRESENT DESIRABLE LEVELS OF PERFORMANCE) USED AS TRADEOFFS TO OPTIMIZE SYSTEM REQUIREMENTS?
- ☐ Yes
  - ☐ No
- E11.9 ASSESS PROGRAM PROCEDURE INFLUENCE
- E11.9A1 PROGRAM PHASED INFLUENCE AREAS
- E11.9A1-1 ARE ILS DESIGN RELATED AND MANPRINT REQUIREMENTS AND CONSIDERATIONS INCLUDED IN SOLICITATION DOCUMENTS, SOURCE SELECTION PROCEDURES AND CONTRACTS?
- ☐ Yes
  - ☐ No

- E11.9A1-2 ARE ILS AND MANPRINT REQUIREMENTS AND CONSIDERATIONS INCLUDED IN THE REVIEW AND EVALUATION OF CONTRACTOR PRODUCTS AND PERFORMANCE DURING THE SYSTEM ACQUISITION PROCESS?
- ☐ Yes
  - ☐ No
- E11.9A1-3 DO SOLICITATION DOCUMENTS AND CONTRACTS MANAGEMENT EFFORTS (WITHIN THE ILS PROGRAM FOR INTEGRATED DEVELOPMENT OF ILS ELEMENTS WITH MANPRINT) INFLUENCE SYSTEM DESIGN?
- ☐ Yes
  - ☐ No
- E11.9A1-4 IS THE CONTRACTOR'S INTEGRATED SUPPORT PLAN (ISP) MAINTAINED IN CURRENT STATUS BY PERIODIC UPDATES?
- ☐ Yes
    - Indicate whether it is used to measure the contractor's performance.
  - ☐ No
- E11.9A1-5 IS LSA STRATEGY (WHICH IDENTIFIES LSA TASKS AND SUBTASKS TO MAXIMIZE DESIGN INFLUENCE) AVAILABLE BEFORE PREPARING SOLICITATION DOCUMENTS?
- ☐ Yes
    - Determine if in the updates, the LSA strategy summarizes accomplished LSA task outputs and projects the LSA task requirements for succeeding program phases.
  - ☐ No
- E11.9A1-6 IS MIL-HDBK-245B [PREPARATION OF STATEMENT OF WORK (SOW)] UTILIZED FOR PREPARATION OF THE APPLICABLE TYPE OF SOW FOR INCLUSION IN SOLICITATION AND CONTRACT DOCUMENTS?
- ☐ Yes
  - ☐ No

E11.9A1-7 DOES THE SOW EXPRESS IN DISCERNIBLE EVENTS, ACTIVITIES, PRODUCTS, ETC., WHAT THE CONTRACTOR IS TO DO AND CAN PROVIDE, WHICH CAN BE MONITORED TO ENSURE THAT ITS REQUIREMENTS ARE BEING MET?

☐ Yes

☐ No

E11.9A1-8 IS MIL-STD-490, "SPECIFICATION PRACTICES," UTILIZED FOR PREPARATION OF THE APPLICABLE TYPE OF SPECIFICATION?

☐ Yes

☐ No

E11.9A1-9 DOES SECTION L OF MIL-STD-490, INSTRUCTION AND CONDITIONS AND NOTICES TO OFFERORS/QUOTERS OF THE REQUEST FOR PROPOSAL (RFP), INCLUDE REQUIREMENTS FOR A LOGISTICS PROPOSAL AS A PART OF THE INSTRUCTIONS FOR PROPOSAL PREPARATION?

☐ Yes

☐ No

E11.9A2 STATEMENT OF WORK

E11.9A2-1 IS MIL-HDBK-245B UTILIZED AS GUIDANCE IN THE PREPARATION OF THE SOW?

☐ Yes

☐ No

E11.9A2-2 DOES THE SOW ESTABLISH AND DEFINE ALL NON-SPECIFICATION REQUIREMENTS FOR CONTRACTOR EFFORTS WITH QUALITATIVE AND QUANTITATIVE DESIGN AND PERFORMANCE REQUIREMENTS INCLUDED IN THE SPECIFICATION?

☐ Yes

☐ No

E11.9A2-3 DOES THE TEXT OF THE SOW TASKS IDENTIFY ONLY THE WORK EFFORT TO BE PERFORMED AND NOT INCLUDE THE DESCRIPTION AND DELIVERY REQUIREMENTS FOR DATA WHICH CAN ONLY BE DEFINED AND SCHEDULED THROUGH THE USE OF THE CDRL, DD FORM 1423 IN CONJUNCTION WITH THE INCORPORATION OF THE APPROPRIATE DATA ITEM DESCRIPTION (DID), DD FORM 1664?

☐ Yes

☐ No

E11.9A2-4 IS THE CDRL USED ONLY TO LIST AND ORDER THE CONTRACT DATA REQUIRED, AND THE DID USED TO DESCRIBE THE DATA AND PRESCRIBE THE PREPARATION INSTRUCTIONS IN TERMS OF FORMAT AND ARRANGEMENT?

☐ Yes

☐ No

E11.9A2-5 COMMENT ON HOW THE PROPOSER INTENDS TO MEET THE REQUIREMENTS AS ESTABLISHED WHETHER CONTAINED IN A SEPARATE DOCUMENT OR INCLUDED IN THE SOW.

E11.9A2-6 DOES THE SOW SPECIFICALLY DEFINE THE LIMITATIONS OF THE APPROPRIATE MILITARY STANDARDS OR MILITARY SPECIFICATIONS THAT ARE INVOKED?

☐ Yes

☐ No

#### E11.9A3 SPECIFICATIONS

E11.9A3-1 HAS MIL-STD-490, "SPECIFICATIONS PRACTICES," BEEN UTILIZED FOR CONTENT DEFINITION OF TYPE A, SYSTEM SPECIFICATION AND/OR TYPE B1, PRIME ITEM DEVELOPMENT SPECIFICATION?

☐ Yes

☐ No

- E11.9A3-2 HAVE SYSTEM/ITEM DEFINITION WHICH TRANSLATES OPERATIONAL REQUIREMENTS INTO EQUIPMENT DEVELOPMENTAL TASKS BEEN INCLUDED IN SECTIONS 3 & 4 OF THE SPECIFICATION?
- ☐ Yes
  - ☐ No
- E11.9A3-3 WERE PERFORMANCE CHARACTERISTICS WHICH DESCRIBE WHAT THE SYSTEM/ITEM SHOULD DO (INCLUDING BOTH BOTH UPPER AND LOWER PERFORMANCE LIMITS) INCLUDED IN SECTIONS 3 & 4 OF THE SPECIFICATION?
- ☐ Yes
  - ☐ No
- E11.9A3-4 WERE PHYSICAL CHARACTERISTICS (WEIGHT AND SIZE LIMITATIONS, TRANSPORT AND STORAGE REQUIREMENTS, DURABILITY AND VULNERABILITY FACTORS, AND HEALTH, SAFETY AND SECURITY CRITERIA) BEEN INCLUDED IN SECTIONS 3 & 4 OF THE SPECIFICATION?
- ☐ Yes
  - ☐ No
- E11.9A3-5 HAVE RELIABILITY REQUIREMENTS STATED IN QUANTITATIVE TERMS (I.E., A RELIABILITY APPORTIONMENT MODEL TO SUPPORT APPORTIONMENT OF RELIABILITY VALUES ASSIGNED TO FUNCTIONAL AREAS OR MAJOR COMPONENTS FOR THEIR SHARE IN ACHIEVING DESIRED SYSTEM OR ITEM RELIABILITY) BEEN INCLUDED IN SECTIONS 3 & 4 OF THE SPECIFICATION?
- ☐ Yes
  - ☐ No
- E11.9A3-6 WERE MAINTAINABILITY REQUIREMENTS IN QUANTITATIVE TERMS AS THEY APPLY TO MAINTENANCE IN THE PLANNED MAINTENANCE AND SUPPORT ENVIRONMENT BEEN INCLUDED IN SECTIONS 3 & 4 OF THE SPECIFICATION?
- (MAINTAINABILITY REQUIREMENTS SHOULD INCLUDE TIME AND RATE FACTORS AND MAINTENANCE COMPLEXITY SUCH NUMBER OF PEOPLE, AND SKILL LEVELS AND VARIETY OF SUPPORT EQUIPMENT. TIME FACTORS INCLUDE MEAN AND MAXIMUM DOWNTIME, MEAN AND MAXIMUM TIME TO REPAIR,

AND MEAN TIME BETWEEN MAINTENANCE ACTIONS. RATE FACTORS INCLUDE MAINTENANCE MANEUVERS PER SPECIFIC MAINTENANCE ACTION, MAINTENANCE HOURS AND FREQUENCY HOURS, AND FREQUENCY OF PREVENTATIVE MAINTENANCE.)

☐ Yes

☐ No

E11.9A3-7

WERE ENVIRONMENTAL CONDITIONS, BOTH NATURAL AND INDUCED, DURING OPERATION, STORAGE, AND SHIPMENT INCLUDED IN SECTIONS 3 & 4 OF THE SPECIFICATION? FACTORS SUCH AS CLIMATE, VIBRATION, NOISE, AND NOXIOUS FUMES SHOULD ALSO BE INCLUDED.

☐ Yes

☐ No

E11.9A3-8

WERE TRANSPORTABILITY REQUIREMENTS TO PERMIT DEPLOYMENT, EMPLOYMENT, AND LOGISTIC SUPPORT INCLUDED IN SECTIONS 3 & 4 OF THE SPECIFICATION?

☐ Yes

☐ No

E11.9A3-9

WERE DESIGN AND CONSTRUCTION REQUIREMENTS SPECIFIED BY ESTABLISHED MILITARY STANDARDS AND SPECIFICATIONS INCLUDED IN SECTIONS 3 & 4 OF THE SPECIFICATION?

☐ Yes

☐ No

E11.9A3-10

WERE SYSTEM/ITEM REQUIREMENTS FOR USE OF MATERIALS, PARTS, AND PROCESSES IN THE DESIGN (INCLUDING QUALIFIED STANDARD AND COMMERCIAL PARTS) INCLUDED IN SECTIONS 3 & 4 OF THE SPECIFICATION?

☐ Yes

☐ No

- E11.9A3-11 WERE ELECTROMAGNETIC RADIATION REQUIREMENTS, (INCLUDING OPERATING ENVIRONMENT AND THAT WHICH IT GENERATES) INCLUDED IN SECTIONS 3 & 4 OF THE SPECIFICATION?
- ☐ Yes
  - ☐ No
- E11.9A3-12 WERE NAME PLATES AND IDENTIFYING MARKING REQUIREMENTS FOR SYSTEM, EQUIPMENT AND PARTS WITH APPLICABLE EXISTING STANDARDS ON CONTENT AND APPLICATION INCLUDED IN SECTIONS 3 & 4 OF THE SPECIFICATION?
- ☐ Yes
  - ☐ No
- E11.9A3-13 WERE SAFETY REQUIREMENTS TO PRECLUDE OR LIMIT HAZARDS TO PERSONNEL AND EQUIPMENT IMPOSED BY CITING ESTABLISHED STANDARDS INCLUDED IN SECTIONS 3 & 4 OF THE SPECIFICATION? INCLUDE REQUIREMENTS FOR SUPPORT EQUIPMENT AND FOR ASSEMBLY, DISASSEMBLY, TEST, TRANSPORT, STORAGE, OPERATION AND MAINTENANCE. ALSO INCLUDE FAIL-SAFE AND EMERGENCY OPERATING RESTRICTIONS REQUIRED TO PREVENT INJURY OR TO PROVIDE FOR RECOVERY IN THE EVENT OF FAILURE, AS WELL AS ELECTRICAL SYSTEM GROUNDING, GAS DETECTION AND WARNING DEVICES, CLEANLINESS AND DECONTAMINATION.
- ☐ Yes
  - ☐ No
- E11.9A3-14 WERE HUMAN ENGINEERING REQUIREMENTS WITH APPLICABLE MIL-STD BY REFERENCES AND CONSTRAINTS ON ALLOCATION OF FUNCTIONS TO PERSONNEL AND PERSONNEL/EQUIPMENT INTERACTIONS INCLUDED IN SECTIONS 3 & 4 OF THE SPECIFICATION?
- ☐ Yes
  - ☐ No

- E11.9A3-15 WERE INTERCHANGEABILITY REQUIREMENTS FOR SYSTEM EQUIPMENT OR COMPONENTS AS A CONDITION OF DESIGN INCLUDED IN SECTIONS 3 & 4 OF THE SPECIFICATION?
- o Yes
  - o No
- E11.9A3-16 WERE SYSTEM AND ITEM DOCUMENTATION REQUIREMENTS (I.E., TECHNICAL MANUALS AND INSTALLATION INSTRUCTIONS) INCLUDED IN SECTIONS 3 & 4 OF THE SPECIFICATION?
- o Yes
  - o No
- E11.9A3-17 WERE MAINTENANCE CONSIDERATIONS (INCLUDING USE OF MULTIPURPOSE TEST EQUIPMENT, REPAIR VERSUS DISCARD CRITERIA, ORGANIZATIONAL LEVELS OF MAINTENANCE, AND REPAIR CYCLES, AND ACCESSIBILITY) INCLUDED IN SECTIONS 3 & 4 OF THE SPECIFICATION?
- o Yes
  - o No
- E11.9A3-18 WERE SUPPLY SYSTEM CONSIDERATIONS WHICH INFLUENCE DESIGN (I.E., INTRODUCTION OF NEW ITEMS INTO THE SUPPLY SYSTEM, SUPPLY AND RESUPPLY METHODS, DISTRIBUTION AND LOCATION OF SYSTEM AND ITEM STOCKS) INCLUDED IN SECTIONS 3 & 4 OF THE SPECIFICATION?
- o Yes
  - o No
- E11.9A3-19 WERE FACILITIES, FACILITY EQUIPMENT, AND ANCILLARY EQUIPMENT IMPACT AND REQUIREMENTS TO SUPPORT THE SYSTEM OR ITEM INCLUDED IN SECTIONS 3 & 4 OF THE SPECIFICATION?
- o Yes
  - o No

- E11.9A3-20 WERE PERSONNEL REQUIREMENTS WHICH MUST BE INTEGRATED INTO THE DESIGN (I.E., NUMBER AND SKILL LEVELS FOR OPERATING AND MAINTENANCE PERSONNEL AND PERSONNEL RESOURCES EXPECTED TO BE AVAILABLE FOR TRAINING ON THE SYSTEM OR ITEM) INCLUDED IN SECTIONS 3 & 4 OF THE SPECIFICATION?
- ☐ Yes
  - ☐ No
- E11.9A3-21 WERE TRAINING REQUIREMENTS (INCLUDING TRAINING EQUIPMENT, TRAINING DEVICES, TRAINING TIME AND LOCATIONS, AND COURSE MATERIAL AND TRAINING AIDS TO SUPPORT THE SPECIFIED TRAINING) INCLUDED IN SECTIONS 3 & 4 OF THE SPECIFICATION?
- ☐ Yes
  - ☐ No
- E11.9A3-22 WERE FUNCTIONAL AREA OR MAJOR COMPONENT PERFORMANCE AND PHYSICAL CHARACTERISTICS, (I.E., PARAMETERS, PHYSICAL INTERFACES) INCLUDED IN SECTIONS 3 & 4 OF THE SPECIFICATION?
- ☐ Yes
  - ☐ No
- E11.9A3-23 WERE ORDER OF PRECEDENCE OF REQUIREMENTS OR WEIGHT ASSIGNMENTS TO INDICATE RELATIVE IMPORTANCE OF CHARACTERISTICS AND OTHER REQUIREMENTS INCLUDED IN SECTIONS 3 & 4 OF THE SPECIFICATION? ALSO THE ESTABLISHMENT OF ORDER OF PRECEDENCE OF SPECIFICATION RELATIVE TO REFERENCED DOCUMENTS SHOULD BE INCLUDED.
- ☐ Yes
  - ☐ No

E11.9A3-24 DOES SECTION 4 OF THE SYSTEM AND/OR DEVELOPMENT SPECIFICATION COVER REQUIREMENTS FOR FORMAL TESTS/VERIFICATIONS OF SYSTEM OR ITEM PERFORMANCE, DESIGN CHARACTERISTICS AND OPERABILITY?

☐ Yes

☐ No

E11.9A3-25 ARE RELIABILITY TESTS, ENGINEERING TESTS, QUALIFICATION TESTS, AND INSTALLATION TESTS AND CHECKOUTS INCLUDED AS WELL AS FORMAL TEST VERIFICATION OF PERFORMANCE CHARACTERISTICS?

☐ Yes

☐ No

E11.9A3-26 ARE PREPARATION FOR DELIVERY REQUIREMENTS FOR EQUIPMENT INCLUDED IN SECTION 5 OF THE SPECIFICATIONS BY REFERENCING APPROPRIATE MILITARY SPECIFICATIONS AND STANDARDS AS WELL AS ANY NON-STANDARD PRACTICES PECULIAR TO THE SYSTEM OR THE ITEM?

☐ Yes

☐ No

E11.9A4 CONTRACTOR INCENTIVES

E11.9A4-1 DOES THE SOW CLEARLY DEFINE THE DESIRED WORK EFFORT TO BE PERFORMED AND ACCOMPLISHED EXPRESSED AS MINIMUM NEEDS WITHIN THE SCOPE OF OUTER LIMITS OF THE CONTRACTOR'S EFFECTIVENESS?

☐ Yes

☐ No

E11.9A4-2 IS THE SOW DESCRIPTION OF THE WORK DEFINITE ENOUGH FOR CONTRACT ENFORCEMENT YET BROAD ENOUGH TO ALLOW FOR THE CONTRACTOR'S CREATIVE EFFORT TO ENHANCE THE PROGRAM?

☐ Yes

☐ No

- E11.9A4-3 ARE SOW REQUIREMENTS, OBJECTIVES AND GOALS CLEARLY WRITTEN IN ORDINARY LANGUAGE WHICH ALLOWS ONLY ONE INTERPRETATION WITH ESSENTIAL TECHNICAL LANGUAGE USED SPARINGLY?
- o Yes
  - o No
- E11.9A4-4 IS "SHALL" USED WHENEVER A PROVISION IS MANDATORY AND "WILL" USED TO EXPRESS A DECLARATION OF PURPOSE OR WHERE SIMPLE FUTURITY IS INTENDED?
- o Yes
  - o No
- E11.9A4-5 ARE "WORK WORDS" USED TO IDENTIFY WORK EFFORT AND PERFORMANCE AND NOT "DATA WORDS" TO IDENTIFY DATA DELIVERABLES?
- o Yes
  - o No
- E11.9A4-6 ARE REFERENCE DOCUMENTS AND MILITARY SPECIFICATIONS AND STANDARDS SELECTIVELY INVOKED TO THE LEVEL REQUIRED TO SATISFY THE MINIMAL NEED?
- o Yes
  - o No
- E11.9A4-7 DOES THE DEMONSTRATION AND EVALUATION (DVAL) PHASE SOW CONTAIN DISCRETE DETAIL TO ENABLE THE BIDDERS AND SUBSEQUENTLY THE CONTRACTOR TO EXPAND THE PROGRAM REQUIREMENTS INTO AN EFFECTIVE PROGRAM PLAN, AND THE SYSTEM REQUIREMENTS INTO THE SYSTEM TYPE SPECIFICATIONS?
- o Yes
    - Include whether system engineering, construction of test hardware, and risk assessment are part of the effort.
  - o No

E11.9A5 SOURCE SELECTION TECHNIQUE AND WEIGHING

E11.9A5-1 DOES SECTION L, INSTRUCTION AND CONDITIONS AND NOTICES TO OFFERORS/QUOTERS, INCLUDE A "LOGISTICS PROPOSAL" REQUIREMENT AS A PART OF THE INSTRUCTIONS FOR PROPOSAL PREPARATION FOR COMPLIANCE WITH AR 1000-1, BASIC POLICIES FOR SYSTEMS ACQUISITION, WHICH STATES THAT "LOGISTICS SUPPORTABILITY WILL BE A DESIGN REQUIREMENT AS IMPORTANT AS COST, SCHEDULE, AND PERFORMANCE?

☐ Yes

☐ No

E11.9A5-2 ARE THE FORMAT AND CONTENT DESIRED IN THE LOGISTICS PROPOSAL BASED ON DATA REQUIREMENTS OF THE INTEGRATED SUPPORT PLAN WHICH IDENTIFIES THE SPECIFIC WORK ELEMENTS THAT WILL BE PROVIDED IN THE MANAGEMENT AND EXECUTION OF THE ILS PROGRAM?

☐ Yes

☐ No

E11.9A5-3 DOES THE LOGISTICS PROPOSAL SPECIFICALLY ENUMERATE THE PROCEDURES, ACTIONS, EVENTS, AND ORGANIZATION TO BE EMPLOYED IN ACCOMPLISHING THE ILS PROGRAM INCLUDED IN THE SOW AND SPECIFICATION?

☐ Yes

☐ No

E11.9A5-4 TO ASSURE LOGISTICS DESIGN INFLUENCES, DOES THE LOGISTICS PROPOSAL INCLUDE A DESCRIPTION OF THE MEASURES TO BE EMPLOYED BY THE CONTRACTOR TO CONTROL THE TRADEOFF PROCESS BETWEEN DESIGN AND LOGISTICS SUPPORT ASPECTS OF PROPOSED DESIGNS AND RESPONSIBLE FUNCTIONAL ELEMENTS OF THE CONTRACTOR'S ORGANIZATION?

☐ Yes

☐ No

- E11.9A5-5 DOES THE LOGISTICS PROPOSAL REQUIREMENT INCLUDE THE CONTRACTOR'S PLAN FOR COORDINATING AND INTEGRATING THE DESIGN ELEMENTS (INCLUDING ENGINEERING, RELIABILITY, MAINTAINABILITY, TECHNICAL MANUALS AND DATA, SPARES AND REPAIR PARTS, FACILITIES, TECHNICAL SERVICES, SUPPORT EQUIPMENT, TRANSPORTATION AND HANDLING, AND TRAINING EQUIPMENT) INTO A SINGLE MANAGEMENT EFFORT?
- o Yes
  - o No
- E11.9A5-6 IS THERE A REQUIREMENT IN THE LOGISTICS PROPOSAL TO SUBMIT AN LSA PLAN IN PRELIMINARY FORM WHICH WILL THEN BE REFINED AND PROVIDED AFTER CONTRACT AWARD AS THE CONTROLLING DOCUMENT FOR THE LSA PROGRAM?
- o Yes
    - Indicate whether this describes how the contractor will accomplish the LSA program and if he understands what is required.
  - o No
- E11.9A5-7 DOES SECTION M, EVALUATION FACTORS FOR AWARDS, OF THE RFL INCLUDE LOGISTICS AS PRIMARY EVALUATION FACTOR AND ITS RELATIVE ORDER OF IMPORTANCE?
- o Yes
  - o No
- E11.9A5-8 ARE LOGISTICS EVALUATION FACTORS LINKED TO THE ILS SOW REQUIREMENTS?
- o Yes
  - o No

E11.9A5-9 ARE THE CRITERIA SELECTED FOR EVALUATION FACTORS DEFINABLE IN QUALITATIVE OR QUANTITATIVE TERMS AND MEASURABLE TO ACCOMPLISH EVALUATION BY OBJECTIVELY COMPARING THE PROPOSAL WITH THE CRITERIA?

☐ Yes

☐ No

E11.9A5-10 ARE FUNCTIONAL ACTIVITY MEMBERS OF THE ILSMT INCLUDED AS MEMBERS OF THE SOURCE SELECTION EVALUATION BOARD (SSEB) AND LISTED IN THE APPROVED SELECTION PLAN TOGETHER WITH NEGOTIATING PROCEDURES TO BE FOLLOWED DURING THE SELECTION PERIOD?

☐ Yes

☐ No

E11.9A5-11 DURING EVALUATION OF PROPOSALS, CLARIFICATION, DISCUSSION AND NEGOTIATION, IS EACH FUNCTIONAL EXPERT AUTHORIZED TO RAISE THE APPROPRIATE ISSUES TO BE CLARIFIED AND/OR NEGOTIATED AND TO RECOMMEND NEGOTIATION POSITIONS?

☐ Yes

☐ No

E11.9A5-12 IS A WEIGHT FACTOR ASSIGNED TO ALL AREAS, ELEMENTS AND FACTORS USED IN EVALUATING THE PROPOSALS AS A GAUGE OF THEIR RELATIVE IMPORTANCE?

☐ Yes

- Determine if the weights are numerical.
- Determine if there are supporting narratives required by the evaluator which discuss the strong and weak points considered in the scoring.

☐ No

- E11.9A5-13 DID THE OFFEROR UNDERSTAND ILS AND ITS ROLE AS AN INTEGRATING MANAGEMENT PROCESS?
- ☐ Yes
  - ☐ No
- E11.9A5-14 WAS THE OFFEROR'S CONCEPT ADEQUATE FOR ASSURING THAT SYSTEM/EQUIPMENT DESIGN WILL BE INFLUENCED BY ILS GOALS AND CONSTRAINTS?
- ☐ Yes
  - ☐ No
- E11.9A5-15 WAS THE OFFEROR'S CONCEPT FOR DEVELOPING AND UPDATING AN ISP AND LSAP BASED ON THE REQUIREMENTS OF MIL-STDs AND THE WORK EFFORT STATED IN THE SOW?
- ☐ Yes
  - ☐ No
- E11.9A5-16 DID THE OFFEROR'S PLAN FOR TRACKING ILS AND LSA PERFORMANCE IDENTIFY ANY ACTUAL OR POTENTIAL BREACH IN CONTRACT STIPULATED ILS GOALS AND CONSTRAINTS?
- ☐ Yes
  - ☐ No
- E11.9A5-17 WERE THE OFFEROR'S METHODS USED TO GENERATE DATA FOR REQUIRED LSA ANALYSIS ADEQUATE?
- ☐ Yes
  - ☐ No
- E11.9A5-18 WAS THE OFFEROR'S APPROACH TO CONDUCT TRADE-OFF ANALYSIS AND SENSITIVITY ANALYSIS ADEQUATE?
- ☐ Yes
  - ☐ No

E11.9A5-19 WAS THE OFFEROR'S PROPOSED METHODOLOGY FOR MEETING LOGISTICS VALIDATION REQUIREMENTS AS PART OF THE TEST AND EVALUATION WORK EFFORT PRESCRIBED IN THE SOW ADEQUATE?

☐ Yes

☐ No

E11.9A5-20 WAS THE QUALITY OF THE OFFEROR'S CORPORATE BACKGROUND AND PREVIOUS EXPERIENCE INCLUDING ANY PROPOSED SUBCONTRACTORS IN ILS/LSA RELATED TASKS ACCEPTABLE?

☐ Yes

☐ No

E11.9A5-21 WAS THE OFFEROR'S PROPOSED ILS ORGANIZATION, LINES OF AUTHORITY, AND MANAGEMENT APPROACH TO ASSURE LOGISTICS DESIGN INFLUENCE ADEQUATE?

☐ Yes

☐ No

E11.9A5-22 DID THE OFFEROR'S PERSONNEL AND SUBCONTRACTOR PERSONNEL DEMONSTRATE THEIR THEIR CAPABILITY TO PERFORM THE ILS/LSA TASKS REQUIRED BY THE SOW?

☐ Yes

☐ No

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