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TECHNICAL NOTE

MISSILE-X PROGRAM LOGISTIC ELEMENT MANAGEMENT PLAN FOR SUPPORT FACILITIES LEM

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22 August 1977

Prepared for

DEPARTMENT OF THE AIR FORCE SPACE AND MISSILE SYSTEMS ORGANIZATION (AFSC) **ICBM Program Office**

Under Contract F04606-76-A-0087-R901

Publication W77-1953-TN09



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> Objectives of the MX Program.

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22 August 1977

One of 12 LEM Plans Prepared for

DEPARTMENT OF THE AIR FORCE SPACE AND MISSILE SYSTEMS ORGANIZATION (AFSC) ICBM Program Office

Under Contract F04606-76-A-0087-R901 \vee

Prepared by A.N. Winter A.J. Fremer





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MISSILE-X PROGRAM LOGISTIC ELEMENT MANAGEMENT PLAN FOR SUPPORT FACILITIES LEM

22 August 1977



SPACE AND MISSILE SYSTEMS ORGANIZATION AIR FORCE SYSTEMS COMMAND

Prepared by

Logistics (MNL) Deputy for Intercontinental Ballistic Missiles MISSILE-X PROGRAM LOGISTIC ELEMENT MANAGEMENT PLAN FOR SUPPORT FACILITIES LEM

22 August 1977



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Aloysius G. Casey, Colonel, USAF Assistant Deputy, Missile-X Date _____

Date _____

Date _____

FOREWORD

This Support Facilities Logistic Element Management Plan is one of twelve plans supplementing the guidance and direction for the Integrated Logistic Support (ILS) program as delineated in the Missile-X Integrated Logistic Support Plan (ILSP). Whereas the ILSP provides general guidance and direction for integrating all logistic elements into the overall program requirements, this plan treats the specific actions, milestones, and coordination efforts of the Logistic Element Manager for Support Facilities (SF-LEM). It has been written to assist the SF-LEM in fulfilling his responsibilities toward achieving the ILS objectives of the MX Program.

The majority of information contained in Sections 1 through 4 herein is common to all plans. Sections 5 and 6 present information pertinent to the SF-LEM's efforts.

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1 INTRODUCTION

1.1 BACKGROUND

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In accordance with DoD Directive 4100.35, the promulgating authority of AFR 800-8, and the guidance provided by AFP 800-7, the MX Program Office has implemented an Integrated Logistic Support program for the MX Weapon System. The ILS program, as delineated in the Integrated Logistic Support Plan (ILSP), is intended to ensure that the weapon system is designed with due consideration given to its supportability and that the required support will be attained within an affordable, minimum life cycle cost.

For the MX System, logistic elements – areas of support activity that collectively comprise the management concept of ILS – have been defined. These are:

Maintainability Interface (M) Reliability Interface (R) Nuclear Hardness and Survivability Interface (NH&S) Maintenance Planning (MP) Support and Test Equipment (SE) Supply Support (SS) Transportation and Packaging (T&P) Technical Data (TD) Support Facilities (SF) Personnel and Training (P&T) Logistic Support Management Information (LSMI) Logistic Support Resource Funds (LSRF)

For each area of support activity, the MX Program Office has designated a logistic element manager (LEM) responsible for managing the accomplishment of the tasks associated with his element.

1.2 PURPOSE

This document is a Logistic Element Management Plan for the Support Facilities element. It has been written to provide the SF-LEM with guidance in managing this element and ensuring the integration of support facilities requirements into the system design process. This plan, and those developed for the other eleven logistic elements, will become supplementary documents to the ILSP.

1.3 MX PROGRAM

The MX Program has been implemented to provide the technology base for the development of an improved land-based strategic missile weapon system. Efforts are being directed toward the design, development, and deployment of an ICBM system within one of two nuclear hardened, multiple aim point (MAP) basing alternatives. The two currently favored basing options are the buried-trench and shelter-based weapon systems.

Full scale development (FSD) of the MX Weapon System is divided into two major efforts: missile development, including the missile and canister; and weapon system development, which includes the MAP basing hardware, software, and facilities, and the integration of the missile/canister with these equipments and facilities.

2 SCOPE

This Logistic Element Management Plan structures the support facilities logistic requirements of the ILSP into identifiable responsibilities of the SF-LEM and delineates the tasks associated with these responsibilities. The plan is applicable to the FSD phase of the MX Weapon System, with overlap to the preceding validation and system definition phases and succeeding production/deployment phases. The plan applies to all elements of the weapon system, including the air vehicle, support functions, and the selected basing option. In addition, this plan:

- a. Provides an overview of the MX program management concept, and the LEMs' position in the management structure.
- b. Describes the ILS program and the functions of the SF-LEM within that program.
- c. Describes the participation of the SF-LEM in the ILS Management Information System.
- d. Indicates the interdependencies among tasks and the coordination among all members of the Integrated Logistic Support Management Team (ILSMT), the project element officers (PEOs), and systems engineering.
- e. Presents a basic schedule for the performance of tasks by relating each task to the time frame of major program events.
- f. Indicates the interrelationships of the SF-LEM with the remaining logistic elements.

3 REFERENCE DOCUMENTS

The following document listing is provided as a reference source relating to the implementation of an ILS program and the Support Facilities logistic element.

DoD Directive 4100.35	Development of Integrated Logistic Support for Systems/Equipment, 1 October 1970
DoD 4100.35G	Integrated Logistic Support Planning Guide for DoD Systems and Equipment, 15 October 1968
DoD 4270.1-M	Construction Criteria Manual, 18 September 1972
AFM 86-2	Standard Facility Requirements, 1 March 1973
AFM 88-15	Design Manual, Criteria and Standards of Air Force Construction, 8 January 1975
AFP 800-7	Integrated Logistic Support Implementation Guide for DoD Systems and Equipments, March 1972
AFR 800-8	Integrated Logistic Support (ILS) Program for Systems and Equipment, 27 July 1972
SAMSO Supplement to AFR 800-8	Integrated Logistic Support (ILS) Program for Systems and Equipment, 7 September 1976
	SAMSO Facilities Design Manual
SAMSO R 88-3	Preparation of Facilities As-Built Drawings, 14 October 1970
ICBM PO ED 77-6	System Requirements Analysis Programs for the MX Weapon System, 24 May 1977
ICBM PO ED 77-3	ICBM Program Office Engineering Directive for the Integrated Test Plan for MX Weapon System 22 June 1977
ILSP	Missile-X Integrated Logistic Support Plan, June 1977
PO Manual	ICBM PO Project Officers' Manual, 1 July 1976
SAMSO/MNL Publication	ILS Management Information System Report, 31 August 1977

4 PROGRAM MANAGEMENT

Management of the MX Weapon System Program is the responsibility of the ICBM Program Office. The Program Manager has the overall responsibility for acquisition and integration management of the program, and is supported by the following Directorates within the ICBM Program Office:

Logistics

Engineering

System Acquisition Management Support

Procurement and Production

Deployment

Program Control

The ICBM Program Office comprises a team of Air Force and contractor personnel. That office operates with a functionally decentralized organizational structure, which has resulted in the implementation of the Project Element Management System. In this system, the program is divided into a series of discrete, functional elements, each managed as an entity by a designated project element officer responsible for monitoring the technical, cost, and schedule performance of one or more MX associate contractors. No prime contractor will be designated for the MX Program. Rather, the ICBM Program Office will function as the system integrator.

4.1 ILS PROGRAM ORGANIZATION

4.1.1 Deputy Program Manager for Logistics

The Deputy Program Manager for Logistics (DPML) was assigned from HQ AFLC with the concurrence of the MX Program Manager, and serves as the focal point for MX logistics management. The DPML and his organization are an integral part of the ICBM Program Office and form the Directorate of Logistics (MNL). Within the MX Program, it is the responsibility of the DPML to assure that:

- a. Continuous attention is given to logistic support posture and costs throughout the acquisition process.
- b. Tradeoff studies affecting system design are evaluated to determine their impact on supportability, life cycle cost, and operational requirements.
- c. All objectives of ILS are achieved for the MX Weapon System.

The DPML will draw upon the support of the designated logistic element managers to obtain timely contributions to those system design and support decisions which affect logistic support costs and effectiveness throughout the life of the system.

4.1.2 Logistic Element Managers

As discussed in paragraph 4, the Program Office operates with a functionally decentralized organization structure. This decentralization has positioned ILS elements (as defined by AFR 800-8) outside of the Logistics Directorate, in company with those engineering design elements (e.g., Reliability) normally external to the logistics organization. Logistic element managers have been designated within each functional logistic-related area. In addition, the Technical Data and Supply Support elements are further separated into subelements to gain maximum benefits from the decentralized organizational structure. The elements, by Directorate, are shown in Figure 4-1.

The manager for each element is the single point of contact for the DPML in the management of all logistic integration aspects of the assigned element. The LEM assures that the tasks associated with his element, as defined within this Logistic Element Management Plan, are accomplished. He provides liaison and coordination among the other logistic element managers as required for the achievement of integrated logistic support. He further assures that all relevant ILS data are collected, analyzed, reported, and disseminated, as appropriate, for his element.

Each LEM also plays a key role in supporting the Program Office's function as integrating agency of all associate contractor activities. The SF-LEM supports engineering personnel and the PEOs by providing the management assistance needed to identify the contractual requirements relative to his element. In so doing,



Figure 4-1. MX Program Logistic Element Managers

he assures that a system integration approach is used in determining the requirements for each associate contractor. Due to the large number of associates involved, a significant coordination effort will be required by the LEM within his logistic element to maintain cognizance of the activities that impact on logistics.

Each LEM is a member of the Integrated Logistic Support Management Team, and through active participation as a team member he supports the DPML in managing the accomplishment of the Program Office's acquisition logistics tasks.

It is through the exchange of information at ILSMT meetings and the interrelationships of LEMs that the DPML will acquire the program information necessary to assure the integration of logistic support elements into the total program requirements.

4.2 ILS MANAGEMENT INFORMATION SYSTEM

The ILS Management Information System was developed to assist the DPML and all logistic element managers in their efforts to achieve the logistic objectives of the MX Weapon System. Management and direction of the information system's activities are the responsibility of the DPML. This responsibility is discharged primarily through his position as chairman of the ILSMT and of technical interchange meetings.

Successful implementation of the ILS MIS depends on each LEM's accomplishment of the tasks delineated in his LEM plan, through fulfilling his reporting responsibilities, and through active participation in the ILSMT.

The ILS Management Information System Report dated 31 August 1977 provides a complete description of the ILS MIS and the LEMs' role in implementing the system. Figure 4-2 depicts the information flow of the ILS MIS, and will serve as an aid in understanding the data input/output and coordination activities of the SF-LEM as defined in Sections 5 and 6 of this plan.

In general, much of the management information will involve estimates, or other planning data in which the quality of the data used will vary over some acceptable range. The criteria provided for use by the LEMs in describing the relative quality of MIS data are presented in tables within the Integrated Logistic Support Management Information System Report. Assistance to the LEMs for participating in the ILS MIS, as both contributor and user, will be provided by the Logistic Support Management Information LEM.



A typical schedule showing program events for the logistic element addressed in this plan is shown in Appendix C. This schedule depicts the general type of information required as input to the management information system for tracking the progress of each associate contractor in fulfilling the requirements for a specific logistic element. This type of information is also a prerequisite to the LEM's effort of tailoring the task schedule shown in Table 6-1 to each associate contractor's unique development activities.

5 GENERAL REQUIREMENTS

5.1 INTEGRATED LOGISTIC SUPPORT PROGRAM

Integrated Logistic Support is a concept that encompasses the total and timely support of a system/equipment, within acceptable life cycle cost criteria, for the duration of its useful life. Realization of this concept is achieved through planning and analysis tasks for the subsequent procurement of all required support as part of the total acquisition process.

An ILS program has been implemented for the MX Weapon System to assure that the ILS concept impacts the system design process in a manner that will improve supportability and control O&S costs. Within the ILS program, logistic elements have been identified (see paragraph 1.1). These elements are areas of support activity which, when collectively considered, provide the basis for the acquisition of the human, material, and financial resources required to maintain a system in an acceptable state of operational readiness within affordable cost criteria.

Essentials of the ILS program include the analysis and definition of quantitative and qualitative logistic support requirements; the prediction of logistic support costs; and the performance of tradeoff studies and evaluations. The responsibility for performance of these efforts rests with the ICBM Program Office and its supporting directorates. However, the responsibility for monitoring and assuring the accomplishment of these efforts has been assigned to the logistic element managers. Each Logistic Element Management Plan delineates the detailed areas of responsibility for a specific LEM.

Figure 5-1 depicts the information flow among the various LEMs during the performance of their ILS efforts. While the information flow will primarily be in the direction indicated by the arrows in that diagram, situations will arise where information must be passed in both directions. Additionally, the information flow might be influenced by variations in logistic information requirements among the configuration end items. Figure 5-1a (inset in Figure 5-1) indicates that the impact of the ILS concept on the system design is achieved through the logistic support analysis efforts.



Figure 5-1. Primary Interface Relationships of Logistic Elements

5.2 SUPPORT FACILITIES LOGISTIC ELEMENT

The Support Facilities logistic element encompasses those efforts which assure that all required buildings/structures to be used for storage, maintenance, and repair of subsystems and equipment of the MX Weapon System are available to the operating forces and supporting activities in a timely manner. Facilities planning is based on systems requirements analyses, particularly the logistic support analysis and maintenance task analysis. The planning effort requires logistic management attention through all phases of the life cycle, to provide positive coordination with other logistic elements with regard to facility design criteria, dates of need, construction lead times, and LCC/DTC criteria. The SF-LEM will implement a number of tasks to assure that support facilities requirements are fulfilled for the MX Weapon System. He will develop a schedule of these assurance tasks for each FSD contract that requires the preparation of facility criteria.

In the performance of his assurance functions, the SF-LEM will coordinate, as necessary, with PEOs, OPRs, systems engineering, and other LEMs. Additionally, in areas such as test and evaluation and software support that do not have LEM representation, coordination may be required with POs. His membership in the ILSMT will require the preparation of status reports, the initiation of problem/impact statements, the development of schedule information for the MIS, and the resolution of assigned action items.

SF-LEM MANAGEMENT RESPONSIBILITIES AND TASKS

6.1 RESPONSIBILITIES

The Support Facilities LEM assists the Deputy Program Manager for Logistics in assuring that the SF aspects of the ILS program are achieved, and that support facilities requirements are based on the system/equipment design. Responsibilities of the SF-LEM include:

- a. Coordinating the SF element of logistics for the MX Program.
- b. Serving as the point of contact for MX logistic support analysis efforts concerning support facilities.
- c. Establishing lines of communication with each PEO, and providing assistance in all matters pertaining to the SF logistic element.
- d. Providing SF inputs to the ILS Management Information System.
- e. Ensuring that cost-effective criteria are applied to the preparation of support facilities requirements.
- f. Acting as the support facilities representative to the ILSMT.

6.2 MANAGEMENT TASKS

The scope of each task identified in this plan must be tailored by the SF-LEM for each specific procurement. Consequently, the applicable data items and the degree of coordination activities will vary with the scope of the task.

While the tasks identified below are intended to be comprehensive relative to the scope of the SF-LEM's responsibilities, additional tasks may become apparent during the implementation of this plan. The LEM is responsible for assuring that these new tasks are planned and scheduled for each applicable procurement. The new tasks should be documented, this plan updated as applicable, and the appropriate information provided to the LSMI-LEM for updating the MIS and its information displays.

The following paragraphs describe the tasks to be performed. Table 6-1 (see paragraph 6.3) presents a task summary and indicates applicable data items,

expected coordination required for the tasks, and a schedule relating tasks to major program events.

• Task 1

Assure that the maintenance task analysis data impacting on the design of maintenance support facilities are reviewed. The purpose of the review is to verify that the facility design accommodates 1) the requirements indicated by the maintenance and repair tasks to be performed on MX subsystems or equipment, 2) the moving and handling of large or heavy MX subsystems or equipment within the facility, and 3) the required environment within which maintenance personnel will function.

The review of environmental criteria will include coordination with systems engineering, the P&T-LEM, and the Human Factors Engineering Division. When appropriate, the Support and Test Equipment LEM will be consulted and requested to provide inputs related to a facility's requirements for accommodating support and test equipment. The Transportation and Packaging LEM will be consulted for special handling considerations relating to MX subsystems and equipment within the facility.

• Task 2

Assure that storage facility design criteria are reviewed to ascertain that the facility accommodates the size, environmental, and security requirements for the storage of MX subsystems, equipments, and/or spare parts. The NH&S- and T&P-LEMs will be consulted to ensure that the facility accommodates the requirements for special handling of MX hardware stored within the facility. Additionally, MP- and SS-LEMs will be contacted to identify the locations and numbers of spares and repair parts to be stored in the facility. Finally, deployment POs will establish the criteria for determining the size of each operational unit storage area.

• Task 3

Assure that information and/or guidance is provided to the Facility Engineering agency concerning:

- a. Suitability of existing and available MINUTEMAN maintenance and storage support facilities
- Adequacy of support facility criteria contained in the prime item development specifications

- c. Adequacy of contractually required support facilities data (specified by the CDRL) to ensure that logistic criteria are satisfied
- d. Support facility requirements at the system level to ensure no duplication of efforts among the various MX system hardware contractors with respect to the development of facility plans.

• Task 4

Assure that contractor-prepared LSAR data sheets F pertaining to support facilities are reviewed for completeness and accuracy, and that these data are available at major system design review meetings. Assure that these data sheets are updated in a timely manner to reflect the latest available design criteria for support facilities.

• Task 5

Assure that engineering change proposals for MX Weapon System hardware are reviewed with respect to potential influences on ILS in the area of support facility design. The SF-LEM verifies that the required reviews and analyses have been performed and that actual or potential effects on ILS have been identified. The SF-LEM coordinates with each PEO, facilities engineering, and other LEMs as necessary, in implementing this assurance effort.

• Task 6

Support the preparation and updating of logistic documentation. The SF-LEM reviews/develops/updates support facility information contained in or to be a part of MX program documents concerning ILS. The DPML will provide guidance for the performance of this effort. The documents involved include those developed both by the Logistics Directorate and other program groups. The SF-LEM will prepare, for each appropriate document, the logistic information pertaining to support facilities and will coordinate with systems engineering, the OPRs for each document, and other LEMs as appropriate for the development/updating of the documents.

6.3 PREFACE TO TASK TABLE

Table 6-1 lists the tasks discussed in Section 6.2, together with the corresponding data items and coordination required in the performance of the tasks. The schedule shown in the table indicates the availability dates of data items relative to major program milestones. The SF-LEM will prepare a schedule for the completion of the tasks applicable to each facility, using contract award dates as the basis for assigning calendar dates to each schedule.



Production Release T&E As required FCA As required CDR \triangleleft Milestone Schedule \triangleleft As required PDR \triangleleft SDR \triangleleft TABLE 6-1. SUPPORT FACILITIES LEM TASKS (Sheet 2 of 2) Contract Award Release \triangleleft PEOs - MP-, P&T-, T&P-, SS-, SE-LEMs, civil engineering Coordination LSMI-LEM, OPRs, civil engineering PEOs, civil engineering PEOS Site Selection and Evalu-ation Report (DI-S-3552) Facilities System Per-formance Data (DI-S-3554) Final Facilities Design Package (DI-S-3559) TOR/Environmental Impact Assessments/ Analysis Preliminary Facilities Design Package (DI-S-3558) Facilities Requirement Plan (DI-S-6173A) Facilities Design Concepts (DI-S-6175A) Facilities Design Criteria (DI-S-6174A) Applicable Data Items LSAR data sheet F Subsystem Design Analysis Report (DI-S-3581) 1. ECPs (DI-E-3128) 3. Maintenance plan Siting Criteria (DI-S-3560A) ILSP
 SF-LEM plan Same as above 1. 5. .6 12. 4. 2. .9 2. .8 10. 11. Assure that ECPs for hard 1 ware are reviewed for im-pact on support facilities designs with respect to po-tential influences on ILS. d. Assurance of non-duplication of effort among separate hard-ware contractors in the development of support facility plans Assure that LSAR data sheets F are reviewed for completeness and accuracy. Assure that these data are avail. for maj. des. review. Support preparation and updating of logistic documentation. Tasks (Continued) 3. 4.9

APPENDIXES

Appendix A:	Missile-X Program Logistic Element Manager Direct	ory	•	•	•	A-1
Appendix B:	Acronyms and Abbreviations	•	•	·	•	B-1
Appendix C.	Schedule for the Support Facilities Logistic Element					C-1

A PPENDIX A

MISSILE-X PROGRAM STIC ELEMENT MANAGER DIRECTO

Co Logistic Element	ol. L.E. Eklund, DPML Manager	Code	Ext.	Room
Reliability Interface	Capt. T.M. Palmer	MNBR	5359	421
Maintainability Interface	Capt. A.D. Wadsworth	MNLE	4523	619
Nuclear Hardness and Survivability Interface	Capt. W.R. Jacobs	HNNM	7843	111
Maintenance Planning	Lt. Col. R.W. Ayars	MNLE	4523	619
Support Equipment	Lt. Col. B.W. Woolverton	XNNM	7005	138
Supply Support (Preoperational)	Mr. F.C. O'Connor	MNTD	6481	600
Supply Support (Operational)	Mr. J.A. Davidson	WINW	5321	621
Transportation and Packaging	Mr. R.W. Riggs	MNTD	5474	600
Technical Data (Engineering)	Mr. L.E. Onstott	WINW	5321	621
Technical Data (Technical Orders)	Maj. L.W. Cooper	MNTP	6684	609
Support Facilities	Mr. F.E. Longan	UNNM	6891	408
Personnel and Training	Maj. L.W. Cooper	MNTP	6684	609
Logistic Support Resource Funds	Capt. H. B. Robbins	WNLA	5395	623
Logistic Support Management Information	Mr. J.L. Peterson	WINLA	5386	623

APPENDIX B

ACRONYMS AND ABBREVIATIONS

A&CO	Assembly and Checkout	
ADP	Automatic Data Processing	
AFALD	Air Force Acquisition Logistics Division	
AFLC	Air Force Logistics Command	
AFSC	Air Force Systems Command	
AFTEC	Air Force Test and Evaluation Center	
BTWS	Buried Trench Weapon System	
C/A	Contract Award	
CDR	Critical Design Review	
CDRL	Contract Data Requirements List	
CDRS	· Contract Data Requirements Substantiation	
CDSR	Cost Data Summary Report	
CEI	Configuration End Item	
CFSR	Contract Funds Status Report	
CPR	Cost Performance Report	
DPML	Deputy Program Manager for Logistics	
DT&E	Development Test and Evaluation	
FCA	Functional Configuration Audit	
FCHR	Functional Cost Hour Report	
FMA	Failure Mode Analysis	
FSD	Full Scale Development	
ICBM	Intercontinental Ballistic Missile	
IOT&E	Initial Operational Test and Evaluation	
ILS	Integrated Logistic Support	
ILSMT	Integrated Logistic Support Management Tea	am
ILSP	Integrated Logistic Support Plan	
ISP	Integrated Support Plan	
ITP	Integrated Test Plan	
LEM	Logistic Element Manager	

LSA	 Logistic Support Analysis
LSAR	- Logistic Support Analysis Record
MDR	- Missile Design Review
MIC	- Management Information Center
MIS	- Management Information System
MPP	- Maintainability Program Plan
MTBF	- Mean Time Between Failures
MTTR	- Mean Time to Repair
MX	– Missile-X
OPR	- Office of Primary Responsibility
OT&E	- Operational Test and Evaluation
PCA	- Physical Configuration Audit
PDR	- Preliminary Design Review
PEO	- Project Element Officer
PMP	- Program Management Plan
PO	- Project Officer
RPP	- Reliability Program Plan
SAMSO	- Space and Missile Systems Organization
SBWS	- Shelter Based Weapon System
SDR	- System Design Review
SOW	- Statement of Work
SRA	- System Requirements Analysis
T&E	- Test and Evaluation
TI	- Technical Interchange
TPA	- Test Planning Analysis

B-2

APPENDIX C SCHEDULE FOR SUPPORT FACILITIES LOGISTIC ELEMENT

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	Valid System I	ation/ Definition		Full Scale De	velopment		Production/Deploy	nent
Major Missile Milestones	c/A ∆	MDR	sdr ∆	PDR	CDR FC	A tests	AAP Tests	₽īc
Major MAP Basing Milestones		∆ ^{c/A}	∆ ^{SDR}	A ^{PDR} ○	∆ ^{CDR}			
1. Assoc. Contr. Data							3	
Integrated Support Plan	$\Delta^{\mathbf{R}}$	eview	$\Delta^{ ext{Review}}$					
Environ. Protection Pgm. Plan	\triangleleft							
Environ. Impact Assess/ Analysis Report	\triangleleft							
SRA/LSA/Des. Rev. Data			∆ ∆	Dupdate	Δ^{Update}			
2. Final Environ. Statements	Missile		$\bigtriangleup^{ ext{Basing}}$		Deploym	ent		
3. Programming (MCP)		Initial		Final	Appr	oved		
4. SF Design Phase								
SF Criteria		ATESS	S contr. p. criteria∧ ^D	ocument release				
SF Design			Select A/E_{Δ}	Arch./Engrg. c	lesign 🛆			
5. SF Construction Phase								
SF Construction					AIF	B Constru	iction \bigtriangleup	
Hardware I&CO								4