63-4-2

BOEING

SEATTLE, WASHINGTON

THE BOEING COMPANY

NUMBER D2-6809-6

UNCLASSIFIED TITLE WS-133B SITE ACTIVATION LOGISTICS PLAN -
GRAND FORKS AIR FORCE BASE

MODEL NO. _____ CONTRACT NO. AF04(694)-266

ISSUE NO 13 ISSUED TO DDC

CLASSIFIED TITLE (STATE CLASSIFICATION) _____

CHARGE NUMBER

SPECIAL LIMITATIONS ON ASTIA DISTRIBUTION

ASTIA MAY DISTRIBUTE THIS REPORT TO REQUESTING AGENCIES SUBJECT TO THEIR SECURITY AGREEMENT, APPROVED FIELDS OF INTEREST AND THE FOLLOWING

☐ UNLIMITED TO ALL AGENCIES OF THE DEPARTMENT OF DEFENSE AND THEIR CONTRACTORS

☐ LIMITED TO U.S. MILITARY ORGANIZATIONS ONLY

THIS REPORT MAY BE DISTRIBUTED TO NONMILITARY AGENCIES NOT APPROVED ABOVE SUBJECT TO BOEING APPROVAL OF EACH REQUEST.

NOTE: THE LIMITED CATEGORY MAY BE CHECKED ONLY BECAUSE OF ACTUAL OR POTENTIAL PATENT, PROPRIETARY, ETHICAL, OR SIMILAR IMPLICATIONS

PREPARED BY	Wm. A. Fay W. A. Fay	6-11-3
SUPERVISED BY	L. J. Wohlhueter L. J. Wohlhueter	6-11-3
APPROVED BY	C. J. Popejoy C. J. Popejoy	6-11-3
CLASS. AND DISTR. APPROVED BY	L. J. Wohlhueter L. J. Wohlhueter	6-11-3 DATE

FORM 2-2060-100-392

MODEL WS-133B DOCUMENT NO D2-6809-6

TITLE WS-133B SITE ACTIVATION LOGISTICS PLAN - GRAND FORKS AIR FORCE BASE

REVISIONS				ADDITIONS			
PAGE	DATE	PAGE	DATE	PAGE	DATE	PAGE	DATE

TABLE OF CONTENTS

		PAGE
1.0	Introduction	1
1.1	Purpose	1
1.2	Scope	1
1.3	Precedence of Requirements	2
1.4	Document Maintenance Plan	2
2.0	Logistics Concepts and Criteria	3
2.1	General	3
3.0	Supply and Resupply	6
3.1	General	6
3.2	Equipment Schedules	6
3.3	Spares Provisioning	6
3.4	Cataloging	8
4.0	Storage	9
4.1	General	9
4.2	Responsibilities and Functions of Contractor Storage Sites	9
4.3	Responsibilities and Functions of Weapon System Storage Sites	10
4.4	Procedures	12
5.0	Packaging and Preservation	13
5.1	General	13
5.2	Responsibilities	13
5.3	Requirements	14

TABLE OF CONTENTS (Continued)

		PAGE
6.0	Transportation.	16
6.1	General.	16
6.2	Shipping and Receiving	16
6.3	Transportation Modes	19
6.4	Hi-Speed Transportation.	23
6.5	Responsibilities	24
7.0	Operations and Maintenance.	27
7.1	General.	27
7.2	Pre-Operational O&M.	27
8.0	Tactical Communications	34
8.1	General.	34
8.2	Criteria	34
8.3	Responsibilities	34
9.0	Security.	38
10.0	Delivery and Acceptance	39
11.0	Logistics Support Data.	40
11.1	General.	40
11.2	Requirements	40
12.0	Minuteman Production Board.	44
12.1	Composition.	44
12.2	Operation.	44
Appendix A	Glossary of Abbreviations	A-1
Appendix B	Definitions	B-1

LIST OF REFERENCES

The following listed references represents a complete listing of materials by documentation type referred to in this plan. This list is not a complete listing of MINUTEMAN logistics documentation; associate contractor publications, for example, are not included. A more complete listing of MINUTEMAN documentation may be consulted in Boeing Company documents D2-9939-1, "Master Consolidated Document Index - MINUTEMAN" and D2-30032, "WS-133B Master Technical Data Index."

AFBM Exhibit 60-30, "Contractor Responsibilities for Activation of Minuteman Sites (H&D)," August 15, 1961

AFBM Exhibit 60-59, "Master Equipment Schedules and Allocations," (May 1, 1961) revised monthly

AFBM Exhibit 60-60, "Minuteman Weapon System Operational Configuration Identification Index," revised monthly

AFBM Exhibit 61-11, "Identification of Minuteman Equipment," April 1961, and Amendments

BSD Exhibit 61-51, "Minuteman Equipment Acceptance Requirements for WS-133A," October 20, 1961

BSD Exhibit 61-52, "Documentation and Control of Equipment Schedules and Allocations, WS-133A," March 12, 1962

BSD Exhibit 62-72, WS-133B Logistics Support System," October 5, 1962

BSD Exhibit 62-62, "System Requirements Analysis"

BSD Exhibit 62-89, "WS-133B Packaging Design Criteria," dated November 15, 1962

BSD Exhibit 62-92, "Design Criteria for Operational HSM-80C Missile and Rocket Transportation System, WS-133A & B

BSD Exhibit 62-93, "Design Criteria for Operational HSM-80 Missile and Rocket Motor Ground Transportation System WS-133A and B (Minuteman)

DCAS 61-87, "Advanced Weapon/System/Equipment O&M Records," November 28, 1961

WDT 57-16, "Advanced Weapon/System/Equipment Operation and Maintenance Records," dated July 1, 1960

WDT 57-17, "Instructions for Serializing Ballistic Missile and Space System Components and Assemblies and Attachment," dated April 15, 1962

Manuals and Regulations

AFM 11-1, "Glossary of Standardized Terms," December 7, 1961

AFM 67-1, "USAF Supply Manual," May 1, 1961 and amendments

AFM 67-1, Volume I, I, XV, XX, and XXIII

AFM 75-1, "Transportation of Materiel," September 25, 1961

AFM 75-2, "Military Traffic Management," March 1, 1958

AMCM 71-2, "Preservation, Packaging Methods, and Instructions for Coding," July 14, 1961

AMCM 72-2, "Cataloging and Items Identification Manual," August 22, 1958

AFR 65-38, "Air Force Participation in the Department of Defense Cataloging Program," July 9, 1956

AFR 66-1, "Policies, Objectives, and Responsibilities," September 5, 196

AFR 71-1, "Management Policies on Packaging and Materials Handling," August 31, 1960

AFR 72-2, "Utilization of Federal Catalog Data," September 19, 1958

AFR 75-24, "Permits for Oversize, Overweight or other Special Military Movements on Public Highways in the Contiguous States and the District of Columbia," January 13, 1960. ALSO AFR 75-24A, May 16, 1961

AMCR 71-5, "Plant Level Development, Approval, and Distribution of Packaging Data," December 29, 1960

Operating Procedures

503-001, "Military Airlift ," December 26, 1962

Technical Orders

T.O. 00-20E-1, "Inspection System and Records for Missiles, Space Vehicles, Ground C-E, and their Aero-Space Ground Equipment," dated August 25, 1961

T.O. 00-35F-1, "Hi-Value Items," dated May 1, 1962

Specifications

MIL-STD-130A, "Identification Marking of U.S. Military Property," September 8, 1958

MIL-STD-726, "Packaging Requirements Codes," dated January 30, 1962

MIL-P-9855, "Prescreening Data to be Furnished by Government Suppliers," dated August 29, 1960

MIL-N-18307C, "Nomenclature and Nameplate for Aeronautical Electronic and Associate Equipment," dated October 1, 1958 and Amendments

MIL-D-26715B, "Descriptive Identification Data to be Furnished by Government Suppliers," January 1, 1960 and Amendments

MIL-D-70327, "Equipment Installation Drawings," dated March 16, 1959

Documents

D2-9914, "BI-MM Operations Manual Production Engineering," Vol. 1-8

Miscellaneous

AFLC 23-2, "Contract Management Responsibilities at the Site Activation Task Force for the Atlas, Titan and MM Programs," dated July 17, 1959

MCP 71-673, "Spare Part Provisioning for USAF Aeronautical and Associated Equipment Contracts," Appendix "A", Part II, dated January 1959, and amendments

STL 6600.4-2003, "Minuteman Glossary of Terms, Guidance Equations, and Abbreviations," dated February 1960

1.0 INTRODUCTION

1.1 PURPOSE

The WS-133B Site Activation Logistics Plan - Grand Forks was developed to provide a comprehensive logistics plan which describes total organizational responsibilities by specific subject, e.g., equipment supply, resupply, transportation, packaging, etc., while defining responsibilities for Weapon System Contractors.

This plan establishes The Boeing Company's logistic management policies, specifies criteria and direction and prescribes responsibilities to Air Force Contractors Agencies which participate in the Minuteman Program prior to site acceptance. The plan is oriented toward program concepts applicable to pre-operational logistics activities. Pre-operational logistics activities are those logistics activities necessary to accomplish assembly and checkout of a Minuteman Weapons System facility prior to its delivery to, and acceptance by the Air Force. Operational logistics activities are those logistic activities required to maintain a Minuteman facility after acceptance by the Air Force, and are not covered by this document.

1.2 SCOPE

The policies and procedures described in this plan are applicable to all Minuteman contractors, including The Boeing Company as the Assembly and Checkout Contractor and the Munitions Facility Assembly and Checkout Contractor.

1.3 PRECEDENCE OF REQUIREMENTS

In case of conflict between this plan and other contractual documents, contractors will be responsible for seeking clarification from the appropriate Ballistic System Division (BSD) Contracting Officer.

1.4 DOCUMENT MAINTENANCE PLAN

Revisions to this Site Activation Logistics Plan - Grand Forks AFB (D2-6809-6) will be coordinated with affected Boeing organizations by Minuteman Operations, Documentation Administration and transmitted to BSD for review and approval. The Boeing Company will assume approval if not notified within 21 days of BSD receipt of proposed revisions.

2.0 LOGISTICS CONCEPTS AND CRITERIA

2.1 GENERAL

The Minuteman Logistics System is designed to permit material management and support for the Weapon System which provide for rapid and positive response to the logistic demands of the various Minuteman Wings without regard to geographic location; precise management of the complex Minuteman Weapon System during assembly and checkout; and maximum economy of inventory investment. These concepts include the following fundamental objectives:

A. Maintaining minimum stocks of support materials and spares.

B. Rapid transit between remote site and factory for overhaul, repair, and modernization.

C. Maintaining minimum turn around time for overhaul and repair.

D. Recycling of assets to other remote sites.

E. Transfer of surplus assets from the Contractor's Government (AFH) account to AFLC stocks.

2.1.1 Logistic management for the Minuteman Weapon System, is the responsibility of the Assembly and Checkout Contractor for logistic activities necessary to assemble, checkout, and deliver a Minuteman facility to the Air Force.

2.1.2 In addition to the responsibilities described in this plan, the specific responsibilities of the participants in the

2.1.2 (Continued)

MINUTEMAN Weapon System logistics system, pre-operational phase are contained in AFBM Exhibit 60-30, as amended for Wing VI. In accordance with this Exhibit, Boeing has been assigned the responsibility to maintain and publish AFBM Exhibit 60-59 entitled "Master Equipment Schedules and Allocations." This Exhibit, as an integral part of the logistics system, defines all equipment required for the activation phases of Assembly and Checkout of Wing VI, covers all contractors participating in the program, and provides the baseline for equipment quantities, on dock dates, and records the manufacturing, shipping, and receival status of each item required to activate a Minuteman site (See Section 12.0).

Boeing is also responsible for maintaining records of materials, parts, components and end items of equipment destined for Wing VI. In accomplishing this task, use the Integrated Record System (IRS), as procedurized in Document D2-9914. This system provides for compliance with time cycle recording requirements, known status, data of items shipped to the Wing, and their ultimate dispersement within the Wing. Other phases of logistics covered by this system include:

A. Parts and Material control within the CSA.

B. Custodial storage.

C. Material disposal and salvage.

D. Delivery - DD Form 250 F and DD Form 250 I.

2.1.2 (Continued)

E. Parts - disbursement functions - Logistics Control

In addition to the above Logistics Control, the Minuteman Production Board is charged with certain responsibilities pertinent to Minuteman logistics system, as described in section 12.0.

2.1.3 Since all elements of the Minuteman logistic complex interact among themselves, as well as with other aspects of the Minuteman Program, any subdivision of the logistics system will be in some measure arbitrary. The arrangement of this plan has been dictated by the desire to present the materials logically in subdivisions by the material itself.

3.0 SUPPLY AND RESUPPLY

3.1 GENERAL

Requirements for parts, supplies, and equipment for assembly, checkout, and delivery of operational Minuteman Wings will be established by BSD assisted by the LSM.

3.2 EQUIPMENT SCHEDULES

BSD will approve requirements, schedules, and allocations for all deliverable and comparable non-deliverable equipment in accordance with AFBM Exhibit 60-59 based on recommendations by the Associate Contractors. "Comparable non-deliverable equipment" is that equipment having a direct counterpart in the Weapon System.

3.2.1 Reallocations/Changes

The MINUTEMAN Production Board, composed of Air Force and Associate Contractor representatives, considers and makes recommendations with regard to reallocations/changes to AFBM Exhibit 60-59. Such actions will be taken in accordance with BSD Exhibit 61-52 (See section 12.0).

3.3 Spares Provisioning

Provisioning of spare parts shall be accomplished in accordance with Annex B of AFBSD Exhibit 60-30.

3.3.1 Responsibilities

3.3.1.1 The Boeing Company will:

A. Furnish spare parts for those end items of equipment which it provides for the A&CO Program.

B. Submit to BSD lists of all Boeing furnished spare parts recommended or interim released in support of the A&CO Program.

C. Receive and review the spares recommendations and interim released spares listings submitted by the Associate Contractors and coordinate changes with the Associates prior to transmittal of the lists to BSD.

D. Forward Associate Contractors recommended and interim released spares lists to BSD.

E. Provide guidance to Associate Contractors in matters relating to support requirements, scheduling and maintenance concepts.

F. Monitor actual delivery of Associate Contractor spares and coordinate with the Associates all spares items which require expedited or other special considerations.

3.3.1.2 Associate Contractors will:

A. Furnish spare parts for those end items of equipment which they provide for the A&CO Program.

B. Submit to The Boeing Company, copy to BSD, lists of spares recommended or interim released.

C. Provide The Boeing Company and to BSD delivery schedules for all spare parts approved for procurement in accordance with the

3.3.1.2 (Continued)

requirement for spares support established by The Boeing Company.

3.3.2 Spares provisioning will reflect the Approved Systems Requirements Analysis developed in accordance with AFBSD Exhibit 62-62.

3.3.3 A plan for the Joint Consideration of Spare Parts (A&CO spares to be subject to downstreaming action) will be developed and will include all Cost Category I and II A&CO spares.

3.4 CATALOGING

3.4.1 General

All non-stock listed items procured for the support of the pre-operational phase of the Weapon System, including items obtained as a result of provisioning and/or interim release by contractors, shall be entered into the Air Force and Federal Catalog program prior to the contractor's scheduled shipping date. This shall be accomplished to permit proper identification of items by Federal Stock Number in all supply documents, records and reports concurrently with introduction of the item into the Air Force inventory in accordance with AFR 72-2, AFR 65-38, and AMCM 72-2.

3.4.2 Requirements

Specifications MIL-D-26715 and MIL-P-9855 will be incorporated in contract by reference, for contractor compliance.

3.4.2.1 Spare parts will be cataloged in accordance with current Air Force and Federal Cataloging policies and procedures as implemented in AFR 65-38, AMCM 72-2, and USAF S-1.

3.3.1.2 (Continued)

requirement for spares support established by The Boeing Company.

3.3.2 Spares provisioning will reflect the Approved Systems Requirements Analysis developed in accordance with AFBSD Exhibit 62-62.

3.3.3 A plan for the Joint Consideration of Spare Parts (A&CO spares to be subject to downstreaming action) will be developed and will include all Cost Category I and II A&CO spares.

3.4 CATALOGING

3.4.1 General

All non-stock listed items procured for the support of the pre-operational phase of the Weapon System, including items obtained as a result of provisioning and/or interim release by contractors, shall be entered into the Air Force and Federal Catalog program prior to the contractor's scheduled shipping date. This shall be accomplished to permit proper identification of items by Federal Stock Number in all supply documents, records and reports concurrently with introduction of the item into the Air Force inventory in accordance with AFR 72-2, AFR 65-38, and AMCM 72-2.

3.4.2 Requirements

Specifications MIL-D-26715 and MIL-P-9855 will be incorporated in contract by reference, for contractor compliance.

3.4.2.1 Spare parts will be cataloged in accordance with current Air Force and Federal Cataloging policies and procedures as implemented in AFR 65-38, AMCM 72-2, and USAF S-1.

4.0 STORAGE

4.1 General

Storage objectives include such factors as maximum use of space consistent with adequate care; protection and the accurate location of property; positive item identification; effective conservation of time, labor, equipment; and the rapid easy movement of property from receipt to storage and to the last phase of warehousing operations, the issue or shipment of property. To accomplish these objectives, standard Air Force procedures will be followed at the Contractor Storage Sites.

4.2 RESPONSIBILITIES AND FUNCTIONS OF CONTRACTOR STORAGE SITES (CSS)

The Contractor Storage Site will:

4.2.1 Provide supply support to Air Force Missile Squadrons during initial training and operational phases of the Weapon System until such time as the Air Force establishes a logistic capability.

4.2.2 Accomplish all supply functions required in accordance with the "Schedule of Supply Services to be Performed" as prescribed in the supply and distribution contract between the Associate Contractor and Air Materiel Command.

4.2.3 Furnish storage services and effect distribution of peculiar components and equipment as directed by the LSM. These actions will be accomplished in accordance with the approved "Schedule

4.2.3 (Continued)

of Supply Services" and/or "Specifications for Storage Facilities and Services," as specified in the applicable contract.

4.2.4 Prepare and submit to the LSM special reports affecting all Weapon System assets located at the CSS.

4.2.5 Establish internal operating procedures to ensure satisfactory accomplishment of supply functions outlined in the "Schedule of Supply Services to be Performed," including the internal processing of peculiar reparables, in accordance with established turn around time, prior to and after the necessary repair of those items has been performed.

4.2.6 Establish and maintain locator files and perform services required under the applicable AFW supply section, which is identified by an SNY station number in accordance with the "Schedule of Services to be Performed" by the Associate Contractor.

4.2.7 Submit supply, storage, quality control, and transportation problems to the LSM and request assistance from the LSM as necessary.

4.2.8 Process excess property as directed by the LSM.

4.3 RESPONSIBILITIES AND FUNCTIONS OF THE WEAPON SYSTEM STORAGE SITE (WSSS)

The Weapon System Storage Site will:

4.3.8 (Continued)

capability of the depot assigned a WSSS responsibility.

4.3.9 Process excess property as directed by the LSM.

4.4 PROCEDURES

4.4.1 Spares on hand in the contractor storage site are to be segregated and stored by Weapon System account number in such manner to ensure stock control and facilitate the accomplishment of inventory by commodity class.

4.4.2 Items designated as Hi-Valu are to be handled in accord with AF procedures and/or directives.

4.4.3 Covered or inside storage will be afforded Weapon System property unless specific requests are made for exclusion by the Assembly and Checkout Contractor and authorized for open storage by the LSM. Specific requests with complete justification for the use of open storage will be submitted to the LSM. Segregation of stock for Hi-Valu items applies to open storage.

4.4.4 Depot level stocks of spare parts required to support the DMF and the SMSB shall be stored at Weapon System Storage Sites (WSSS) established for the MINUTEMAN Weapon System.

4.4.5 During the assembly and checkout phase base level stocks required to support pre-operational units shall be stored at the SMSB.

4.3.8 (Continued)

capability of the depot assigned a WSSS responsibility.

4.3.9 Process excess property as directed by the LSM.

4.4 PROCEDURES

4.4.1 Spares on hand in the contractor storage site are to be segregated and stored by Weapon System account number in such manner to ensure stock control and facilitate the accomplishment of inventory by commodity class.

4.4.2 Items designated as Hi-Valu are to be handled in accord with AF procedures and/or directives.

4.4.3 Covered or inside storage will be afforded Weapon System property unless specific requests are made for exclusion by the Assembly and Checkout Contractor and authorized for open storage by the LSM. Specific requests with complete justification for the use of open storage will be submitted to the LSM. Segregation of stock for Hi-Valu items applies to open storage.

4.4.4 Depot level stocks of spare parts required to support the DMF and the SMSB shall be stored at Weapon System Storage Sites (WSSS) established for the MINUTEMAN Weapon System.

4.4.5 During the assembly and checkout phase base level stocks required to support pre-operational units shall be stored at the SMSB.

5.0 PACKAGING AND PRESERVATION

5.1 GENERAL

Packaging, preservation, packing, and marking requirements, herein referred to as "packaging," and the preparation and submittal of the elements of data required by the Air Force in support of the MINUTEMAN Aero-Space vehicle, ground handling, ground support equipment, assemblies, sub-assemblies, and support type spares, shall be negotiated by the contractor with the OOAMA Packaging Control Office.

5.1.1 The design objective is directed toward minimizing the need to package ballistic missiles, since airlift or surface transportation under armed guard and with special handling techniques reduces packaging requirements. Operational considerations do not indicate a requirement for a container for long-term storage purposes. In the event special packaging or containers are required for long-term storage, the item will be installed in and delivered concurrently with the container by surface means whenever possible. If item urgency dictates the requirement for air transportation, each case should be reviewed to determine whether cost of air transportation warrants movement of the missile and container should be transported by air or surface means.

5.2 RESPONSIBILITIES

Packaging teams designated by OOAMA will be responsible for developing detailed preservation and packaging methods for

5.2 RESPONSIBILITIES (Continued)

components and spares pertaining to the MINUTEMAN Weapon System in accordance with AFR 71-1, AMCM 71-2, Specification MIL-STD-726, AMCR 71-5, and BSD 62-89.

5.2.1 Contractors will make available sample parts and/or drawings, as necessary, of the equipment, assemblies, sub-assemblies, and spare items being procured for review by the packaging group. Contractors shall provide preliminary drawing, specifications, or sketches of proposed packaging, including special blocking, cushioning, mounting, containers, etc.

5.3 REQUIREMENTS

Packaging data required by this plan shall be furnished by means of manually prepared source data and M. cards in accordance with AMCM 71-2, in support of Specification MIL-STD-726 and by EAM cards prescribed in said MCP 71-673, Appendix "A", Part II. Applicable data shall be furnished for each item recommended by the contractor for procurement by the Air Force. The contractor shall also provide data for those items which the Air Force desires to procure, but which were not initially recommended for procurement by the contractor.

5.3.1 Quality assurance provisions shall comply with those specifications of Weapon System design criteria involving natural and induced environments that are applicable preservation, packaging, transit, handling, and storage. Tests will be

5.3.1 (Continued)

conducted by the contractor to determine the capability of the packaging and preservation to provide the necessary protection of equipment items from natural and induced environments during transit, handling, and storage.

6.2.2.1 (Continued)

Shipping dollies and re-usable containers, in which GFP-GFE items were received will be accumulated and returned in accordance with approved shipping instructions.

6.2.2.2 Obtaining clearance from civil authorities for overweight, over-dimensional or hazardous shipments will be the responsibility of the Assembly and Checkout Contractor as outlined and within the provisions of AFM 75-1, AFM 75-2, and AFR 75-24.

6.2.2.3 The Assembly and Checkout Contractor will receive and inspect all incoming shipments of GFP-GFE.

6.2.3 Requirements

Air or surface delivery may be employed for movement of any one of the missile subsystems from the production factory to the DMF. Missile motors will be mounted on specially designed pallets or dollies which shall be compatible with the movement of the assembled missile from DMF to the launch site or support base.

6.2.3.1 Shipments will be processed through transportation on a 24 hour, seven-day-week basis. Carriers will be selected that afford the earliest delivery, or meet the supply requirements expressed as deadline date on shipping documents. Shipments will be processed to meet carrier's departure time.

6.2.3.2 Shipping containers will be marked so that they may be identified with the applicable shipping document.

6.2.3.3 Shipments to the operational bases will use either Form DD 250, Material Inspection and Receiving Report, or Form DD 1149, Requisition and Invoice/Shipping Document, as appropriate, to establish accountability at the remote locations.

6.2.3.4 Classified components of the Weapon System will be protected during shipment in accordance with the applicable provisions of the DOD Industrial Security Manual.

6.2.3.5 GFP-GFE items rejected for damage during the receiving-inspection processing will be held in the Assembly and Checkout Contractor's rejection storage area with the Assembly and Checkout Contractor's Quality Control Rejection Tag attached until disposition is determined by the Air Force. The receipt of rejections of GFP-GFE items manufactured by other associate contractors will be coordinated with the appropriate associate contractor representative prior to requesting Air Force disposition of each rejection. When disposition is established, the Assembly and Checkout Contractor will prepare appropriate paper work to rework, scrap, or return it to the appropriate Air Force depot or associate contractor.

6.3 TRANSPORTATION MODES

6.3.1 General

Characteristic of the major portion of supply items in the MINUTEMAN program is a high cost-to-weight ratio. Such material is most economically supplied through the use of transportation systems that provide the fastest delivery service. Requirements for rapid movement of material make it essential that transportation demands be made known to traffic managers at the earliest practical time.

6.3.1.1 In accordance with long range USAF logistic objectives the MINUTEMAN missile will be air transportable in USAF aircraft. However, the most effective means of transportation, air, surface, or water, will be used for the Weapon System. AGE will be developed and procured to permit the use of any one of the systems.

6.3.1.2 In order to ensure proper support of the Weapon System, airlift or water lift will be directed: when operational requirements so dictate; when the functioning of the missile system might otherwise be impaired due to technical considerations; or when emergency conditions exist.

6.3.2 Transportation Requirements

6.3.2.1 Airlift will be used as the preferred mode for: (See BSD 62-93)

6.3.2.1 (Continued)

A. Movement of the complete missile from the Assembly Plant to the Support Base.

B. Movement of the complete missile from the Depot Maintenance Facility to the Support Base.

C. Movement of the complete missile from the Support Base to the Depot Maintenance Facility.

D. Movement of missile components, Ground Operating Equipment (OGE), Ground Support Equipment (GSE), and material from contractors, Inventory Manager AMA's or Weapon System Storage Sites to the using activity, when required to achieve optimum readiness, reliability, and to minimize stock piling.

6.3.2.2 Rail, highway, or a combination of both will be used as the preferred mode for: (See BSD 62-92)

A. Movement of missile components from associate contractors located in the immediate vicinity of the Assembly Plant, to the Assembly Plant.

B. Movement of the missile between the Launch Site and the Support Base.

C. Movement of the re-entry vehicle between the Support Base and the Launch Site.

D. Movement of other missile components, OGE, GSE, and material commensurate with physical characteristics, priority, and Hi-Valu concepts embodied in Air Force policy.

6.3.2.2 (Continued)

E. "Back-up" to air to ensure uninterrupted flow of all elements of the Weapon System.

6.3.2.3 During pre-operational period, movement of Weapon System components via commercial carriers requires the use of Government Bills of Lading, which will be issued by the Assembly and Checkout Contractor Traffic Management Department. Movement by Government aircraft will be accomplished in accordance with provisions of MATS Manual 76-1 and the Assembly and Checkout Contractor's Operating Procedure 502-001, "Military Airlift" with the air pickup point preparing the air manifest.

6.3.2.4 Movement of raw material, fabricated structural components, etc., from vendors and subcontractors to the Assembly and Checkout Contractor will be accomplished by air or surface transportation, depending upon priority and program requirements. BSD, in coordination with the contractor and/or AFBMD, will arrange for or provide transportation required to meet the scheduled delivery dates.

6.3.2.5 Movement of missile engines from associate contractors to test facilities will be by air or highway.

6.3.2.6 Movement of other missile components, GSE and weapon system material will be via air or surface, depending upon characteristics and program requirements.

.6.3.2.7 Operating ground equipment and ground support equipment will be transported to the appropriate launch site, support base, or Weapon System Storage Site by air or surface transportation, depending upon characteristics of the item and Weapon System requirements. Movement by air will be accomplished by LOGAIR, whenever practical, or by commercial air. Surface movement will be accomplished by regular common carrier service.

6.3.2.8 Movement of assembled missile during the pre-operational Assembly and Checkout phase from the Assembly Plant to the deployment area will be accomplished by using C-133B aircraft. Surface transportation will be used from the support base to the launch site. The Assembly and Checkout Contractor will assist the MATS Load Master in loading the missile in the aircraft at Hill AFB, Utah, and the Assembly and Checkout Contractor will assist the MATS Load Master in unloading the missile from the aircraft. The Assembly and Checkout Contractor will be responsible for loading the missile on a transporter and delivery and emplacing the missile in the launch site.

6.3.2.9 The movement of the re-entry vehicle will be accomplished by air or surface transportation to a support base, depending upon system requirements, thence to the launch site by SAC, using specialized vehicles.

6.3.2.10 The movement of ground support equipment and other related materials including the G&C section will be accomplished by air or surface transportation to the designated air, rail, or highway delivery point. The Assembly and Checkout Contractor will be responsible for movement from the designated air, rail, or highway delivery point to the installation site.

6.3.2.11 Interstage assemblies, raceways, and components manufactured by the Assembly and Checkout Contractor will be transported via air or surface transportation to the associate engine contractors or the assembly facility, depending upon Weapon System requirements. Movement by air will be accomplished by LOGAIR and/or commercial airlines. Surface movement will be accomplished by regular common carrier services.

6.4 Hi-Speed Transportation

6.4.1 AFM 75-1 establishes a Hi-Speed concept for the movement of items which significantly affect the support of the MINUTEMAN. Categories of items which will move under the Hi-Speed concept include:

A. Hi-Valu items identified in T.O. 00-35-1.
B. When necessary, any item carrying an appropriate delivery deadline date.

6.4.2 The return transportation of reparable critical items or repairable Hi-Valu items will be handled as prescribed in T.O. 00-20E-1, T.O. 00-35-F-1, and as prescribed by the LSM.

6.4.3 The source-to-user concept shall be used to the maximum extent to reduce handling and redistribution costs.

6.4.4 Routine (Uncl.) Shipments not requiring Hi-Speed Transportation shall be handled in accordance with AFM 75-1.

6.5 Responsibilities

6.5.1 Ballistic Systems Division (BSD) will:

A. Exercise Staff Transportation Management responsibilities during the Research and Development, and the Pre-Operational or Assembly and Checkout phase.

B. Advise OOAMA of program changes which will affect transportation, including design development and scheduled delivery of material handling and transport equipment.

C. Review and approve all transportation movement plans.

6.5.2 OOAMA

The Transportation Officer, OOAMA, is responsible for Transportation and Traffic Management for the Ballistic Missile Program, and will coordinate with BSD. This includes:

A. Forecasting and submitting airlift requirements to Hq. AMC four months in advance of month of movement.

B. Coordinating airlift operations directly with MATS Headquarters after approval of airlift requirements and assignment of Air Force mission members.

C. Providing detailed transportation and packaging instructions to each contractor.

6.5.2 OOAMA (Continued)

D. Coordinating with AMC Headquarters for placement of MATS control team and aircraft at Hill AFB as volume of movement dictates.

E. Providing routing and clearances, and arranging or providing transportation to the contractor for movement of outsize, classified, and/or dangerous materials requiring military airlift. Also, other materials depending upon arrangements between the contractor and OOAMA.

F. Furnishing Government Bills of Lading to the contractors.

G. Preparing and coordinating a detailed movement plan prior to each phase of the program.

6.5.3 MATS will:

A. Provide aircraft in accordance with USAF Headquarters approved airlift schedules.

B. Coordinate with and be responsive to movement requirements directed by OOAMA.

C. Position support aircraft and MATS control team at Hill AFB when movement volume dictates.

6.5.4 SAC will:

A. Coordinate airlift requirements with OOAMA.

B. Provide or arrange for surface movement, as required, for all other Weapon System material between the Support Base and the Launch Site, and air or surface movement of reparable or excess material to the specialized repair activity.

6.5.5 Contractors will:

A. Be responsible to the appropriate transportation agency for any and all shipments as specified within their respective contracts and will perform transportation functions as defined in this movement plan.

B. Coordinate all shipments with the Transportation Officer, OOAMA, in instances where the shipment exceeds the limitations imposed under the general provisions of the contract.

C. Package and load weapon system material aboard the carrier equipment in accordance with instructions from OOAMA.

D. Advise OOAMA and BSD of any slippage in shipment schedules which might bottleneck or cause potential bottlenecks in the program and any shipments that constitute a recurring requirement of non-routine nature.

7.0 OPERATIONS AND MAINTENANCE

7.1 GENERAL

This section is divided into sub-sections dealing, with the pre-operational phase of MINUTEMAN Weapon System control. Responsibilities are indicated where appropriate.

7.1.1 The basic maintenance policies and procedures prescribed in AFR 66-1 and other pertinent Air Force directives will apply to this Weapon System and its component parts.

7.1.2 Maintenance support for MINUTEMAN will be provided in two categories: (1) Support of common Air Force items; (2) Support of peculiar items.

7.2 PRE-OPERATIONAL O&M

This sub-section covers the maintenance requirements of the associate contractors during the assembly and checkout period, prior to Weapon System turnover to SAC.

7.2.1 Organizational Level Maintenance

Organizational level maintenance is that which is performed on-site and is performed in accordance with Technical Orders. Malfunctions that develop during checkout are corrected according to Technical Orders or under the direction of Field Engineering depending upon individual problems. It is supported from the CSA, and consists of the following functions:

7.2.1 Organizational Level Maintenance (Continued)

A. Determining whether equipment is in an operative status through the use of system checkout and monitoring techniques.

B. Retaining equipment in an operative status through the use of preventative maintenance.

C. Providing efficient support for unscheduled maintenance requirements.

D. Restoring defective equipment to an operational status through the use of remove and replace techniques.

7.2.1.1 When a flight has been made operable and is still controlled by the Assembly and Checkout Contractor, the status of the equipment within the LF will be monitored at the LCC.

A. Simulated Strategic Alert - The Simulated Strategic Alert Message shall indicate that all equipment is operating normally.

1. Missile Safing Pins are always installed.
2. No Re-entry Vehicle is installed; a simulator is used.
3. Operational Launch Control Panel is not installed; a similator is used.
4. Operational Signal Decoder is not installed; a simulator is used.
5. Operational codes are not set in the code packs installed in the Command Signal Decoder drawer of the Data Analysis Control rack at the LF's. "Test" or "Safe" codes are used depending upon the phase of checkout.

7.2.1.1 (Continued)

6. Squibs and ballistic changes are not connected.

B. FAULT - The FAULT message indicates either an equipment NO-GO or ALARM condition at an individual LF.

1. NO-GO - The NO-GO status will indicate a malfunction has occurred which would prevent a successful missile launch.

2. Equipment Alarm - The Equipment Alarm indicates that an abnormal condition exists which may or may not cause an abort.

7.2.1.2 Equipment within the Launch Control Center will contain integral fault-isolating and fault-reporting capabilities. Portable test equipment will be provided which, in conjunction with the self-test capability, will enable fault isolation to the drawer level.

7.2.1.3 When planning organizational level maintenance the following items shall be considered:

A. Relationship of fault indications to test equipment and spares.

1. Any single fault indication should not require more than one portable test set and X number of spares.

2. Packaging for on-site replacement should be in accordance with fault indications and test set fault isolation capability.

7.2.1.3 (Continued)

B. Fault isolation to an on-site replaceable item (drawer or equivalent) should be on a GO-NO-GO basis and not require internal circuit analysis by the maintenance personnel.

C. For electronic equipment, on-site replacement items should be provided with simple plug-in type connection.

D. For RPIE, RPIE/AGE, and specified AGE (Example: Air Conditioning), on-site replacement should be performed with common hand tools and simple handling equipment. Replacement of most pieces of RPIE or RPIE/AGE will also require certain testing equipment to assure that the system is again functioning properly (air flow, brine flow, adequate refrigeration, etc.)

7.2.1.4 Examples of organizational level maintenance are as follows:

A. Monitor status of LF and LCC OGE.

B. Remove and replace G&C unit and downstage sections.

C. Remove and replace OGE drawers and assemblies.

D. Minor repair or replacement of standard electrical and mechanical equipment (RPIE, RPIE/AGE, AGE that is AF contractor installed).

7.2.2 Field Level Maintenance

Field Level Maintenance is that which is performed at a centralized CSA in accordance with Technical Orders.

7.2.2 Field Level Maintenance (Continued)

It includes maintenance which requires higher skills or more specialized equipment than does organizational level maintenance and consists of isolating and repairing malfunctions to the next lower level of equipment than at the organizational level. In the case of electronic equipment, this is accomplished by removing and replacing the module from the drawer which has been returned from the LF or LCC. An efficient fault isolation capability which does not require a high skill level shall be provided to support the maintenance of equipment drawers. All failures within drawers, or equivalent items, of in-line launch electronic equipment shall be repairable at the CSA without the use of soldering.

7.2.2.1 Examples of field level maintenance are as follows:

A. Fault isolation to the card level using the C91 programming test set, and adaptors.

B. Assembly and repair of the re-entry vehicle.

C. Proof-load testing of the transporter-erector.

7.2.3 Depot Level Maintenance

Depot Level Maintenance is maintenance which deals with the repair of items which require higher skills or more specialized equipment than is feasible to provide at the field level. It requires such provisions as the following:

A. Special facilities, e.g., dust-free rooms.

7.2.3 Depot Level Maintenance (Continued)

B. Special equipment, e.g., quantitative test equipment, and

C. Higher personnel skills, e.g., personnel who can trouble-shoot to the component level.

7.2.3.1 Depot level maintenance also provides for the overhaul and modification of equipment as may be required. Examples of depot level maintenance are as follows:

A. Repair of a malfunctioning G&C set which has been returned from the LF.

B. Repair of a module which has been returned from the CSA.

C. Repair of electrical and mechanical equipment (RPIE, RPIE/AGE, AGE) which is beyond the field level capability.

7.2.4 Responsibilities

Responsibility for all levels of maintenance during the pre-operational period (A&C/O) rest with the Assembly and Checkout Contractor within the scope of Technical Orders with the following exceptions:

A. AGE which is provided by an Associate Contractor. (Example: G&C Equipment). Responsibility, in this case, is the Associate Contractor's at depot level and Assembly and Checkout Contractors at organizational and field level maintenance. Associate Contractor technical representatives will be consulted on these items.

B. RPIE, RPIE/AGE, AGE that is AF Contractor installed. Organizational level maintenance will be the responsibility

7.2.4 Responsibilities (Continued)

of the Assembly and Checkout Contractor. Depot level maintenance is the responsibility of the AF Contractor (Corps of Engineer Contractor in the case of RPIE, RPIE/AGE) for a period of one year from the date of acceptance of the facility. In the specific case of the Intersite Contractor and Communications System, all maintenance will be considered as organizational level and the responsibility of the Assembly and Checkout contractor.

C. Responsibility for the condition of the Weapon System at the time of turn-over to the using Air Force agency will rest with the Assembly and Checkout Contractor.

8.0 TACTICAL COMMUNICATIONS

8.1 GENERAL

Prompt, reliable communications are essential to both the operation and the support of the MINUTEMAN Weapon System. This section outlines the areas of responsibility for the principal tactical communications subsystems.

8.2 CRITERIA

8.2.1 Support communications consist of those telephone, mobile radio, teletype, facsimile, or data systems required during the pre-operational period. This includes (1) on-base telephone support; (2) off-base telephone support to Contractor Support Areas (CSA), LCF's and LF's; (3) TWX teletype service; (4) inter-Wing Long-Haul circuitry.

8.2.2 Maintenance Communications Network (MCN) serves mainly as a communication network for maintenance and support groups. It consists of an LCF interphone system, and LF interphone system and a LCF to LF telephone system. The MCN uses commercial telephone lines and hardened cable network. In addition, this network will be used during A&C/O to support a local battery telephone system.

8.2.3 Intersite communications consist of the communications equipment and circuits installed within the Launch Control Facility and the Launch Facility. In the Launch Control Center this consists of the communications panels in the Command Control

8.2.3 (Continued)

console, its associated circuitry, the interphone system to the soft facility above, and the terminal equipment for the intersite cable. In an LF this consists of the internal interphone communications system and the terminal equipment for the intersite cable.

8.2.4 The Intersite Control and Communication System is the medium required to convey command, control, status, security, and administrative signals between the Launch Control Center and the Launchers. In first five MINUTEMAN wings, this consists of a hardened cable plant. In subsequent installations, it may consist of a hardened radio system using hardened low frequency radio circuits in lieu of cable to convey require command systems, together with conventional wire systems for status, security, administrative, and logistic traffic.

8.3 RESPONSIBILITIES

8.3.1 The Assembly and Checkout Contractor will:

8.3.1.1 Provide the Air Force with a statement of total communications requirements for assembly and checkout functions.

8.3.1.2 Furnish long lines support communications from missile site to its base plant.

8.3.1.3 Provide terminal equipment for a simple two wire telephone network connecting LCF's and launcher equipment rooms.

8.3.1.4 Provide, install, and check out the intrasite communications required in the LCF and LF.

8.3.1.5 Provide technical liaison, perform interface surveillance and monitor intersite system (cable) during engineering and installation.

8.3.1.6 Retain under the AFH Account, accountability and custodial responsibility for the intersite system (cable) until its acceptance by SAC.

8.3.1.7 Operate and fully maintain the intersite system (cable) from the time of acceptance from the GES Contractor until acceptance by SAC.

8.3.1.8 Install and integrate the radio intersite system as Operation Ground Equipment (OGE) during assembly and checkout operations.

8.3.1.9 Operate and fully maintain the radio intersite system until acceptance by SAC.

8.3.1.10 Ensure intersite system reliability.

8.3.2 Ballistic Systems Division (BSD) will:

8.3.2.1 With the Engineering Support Contractor (STL), establish the contracting agent for the intersite system.

8.3.2.2 The Ballistic Missile Manager will determine the methods of communication required to accomplish the centralized accounting, automatic resupply and related logistic functions inherent to their mission.

8.3.3 The Ground Electronic System (GES) Contractor will:

8.3.3.1 Provide engineering and install the Communications Cable Plant under the technical direction of BSD.

8.3.3.2 Perform all Communications Cable Plant quality control functions in accordance with AFLC letter 23-2.

9.0 SECURITY

Contractors will safeguard classified information in accordance with the DOD Industrial Security Manual. The Assembly and Checkout Contractor will provide physical security protection for facilities and property in accordance with sound industrial practice and as required by any specific contractual commitment.

10.0 DELIVERY AND ACCEPTANCE

Requirements for inspection and acceptance testing of MINUTEMAN first article and subsequent article end items of AVE and AGE equipment are defined in BSD Exhibit 61-51 incorporated herein by reference.

11.0 LOGISTICS SUPPORT DATA

11.1 GENERAL

Pre-operational logistics support data are those data required by the associate contractors and the Air Force to develop, install, and support the MINUTEMAN Weapon System during the pre-operational phase. These data requirements as relevant are noted in the appropriate sections of this plan. Operational logistics support data are those data required by the Air Force to procure the MINUTEMAN Weapon System, and to logistically support the Weapon System with spares required as a result of failures, scheduled replacements, and modifications.

11.2 REQUIREMENTS

11.2.1 Identification Data

The complete engineering drawing package shall identify all hardware items and their components to permit BSD to initially procure the Minuteman Weapon System.

11.2.1.2 Nomenclatures

Nomenclatures, including names and type designators shall be assigned according to MIL-N-1830/C, "Nomenclature and Nameplates for Aero, Electronic and Associated Equipment."

11.2.1.3 Federal Stock Numbers

Once official nomenclatures are obtained, Federal Stock Numbers shall be assigned by the Air Force based on data supplied by the Associate Contractors in compliance with MIL-P-9855, "Prescreening Data to be Furnished by Government Suppliers" and MIL-D-26715B, "Descriptive Identification Data to be Furnished by Government Suppliers."

11.2.1.4 Nameplates

After Nomenclatures and Federal Stock Numbers have been assigned, equipment end items and selected components shall be identified with nameplates in accordance with MIL-N-18307C, "Nomenclature and Nameplates for Aero Electronic and Associated Equipment" and MIL STD 130A. Serial numbers will be placed on the nameplates during the manufacture of the hardware in accordance with WDT Exhibit 57-17.

11.2.1.5 Drawings

Engineering drawings shall be prepared in accordance with MIL-D-70327, and shall delineate directly or by reference sufficient engineering requirements and characteristics to enable the Government or contractors to procure or reproduce an item or obtain an adequate substitute. Sufficient information to permit engineering evaluation and testing, complete service maintenance, repair, adjustment, and setting shall be included. All part numbers shall be assigned and when items are required to be marked with part number identification, the drawings of

11.2.1.5 Drawings (Continued)

such items shall specify the requirements.

11.2.1.6 Serialization

Hardware items and their components shall be serialized in accordance with WDT Exhibit 57-15. Serialization is required to support the logistic record system established by DCAS Exhibit 61-87. The complete engineering drawing package, plus the proper nomenclaturing, federal stock numbering, part numbering, serializing and nameplating of the hardware items constitute the data required to support hardware procurement, as such these data embody that segment of the Logistics Support Data designated as "Procurement Data."

11.2.2 Configuration Control Data

Data are required to permit BSD to know at all times the exact configuration of the Weapon System during the acquisition phase. Similar data are also required by AFLC to maintain control of the Weapon System configuration during the operational phase.

11.2.2.1 BSD Data Requirements

Data shall be provided by the Associate and Assembly and Check-out Contractors to BSD in accordance to AFBM Exhibit 61-11. This exhibit requires the submittal and updating of an indentured parts list for each serial numbered end item. The parts list for the first article shall be a complete listing

11.2.2.1 BSD Data Requirements (Continued)

of end item, assemblies, sub-assemblies and components by nomenclature and part number down to and including the lowest interchangeable repairable assembly level. In addition to the Indentured Parts List this exhibit designates that the Assembly and Checkout Contractor prepare and distribute AFBM Exhibit 60-60. This index is the official Air Force document which lists and identifies the approved configuration of the operational MINUTEMAN Weapon System. This index of end items by part numbers showing the approved ECP's, together with the Indentured Parts List of each item provides a complete identification of each serial numbered end item.

12.0 MINUTEMAN PRODUCTION BOARD

The MINUTEMAN Production Board has been established in accordance with AFR 375-3 (paragraph 5), dated January 23, 1961. As indicated below the responsibilities and duties of this board affect all aspects of the logistics system.

12.1 COMPOSITION

The MINUTEMAN Production Board (MPB) is composed of an Air Force officer who is also a contracting officer designated by the BSD MINUTEMAN Program Director who acts as Chairman of the Board; representatives of the MINUTEMAN Associate Contractors; and representatives of such other Air Force agencies as may be appointed from time to time. Each member, including the Chairman, shall have an alternate to represent him in the event of his absence or disability.

12.2 OPERATION

The Board meets at the call of the Chairman at The Boeing Company plant, Seattle, Washington. It considers for resolution those equipment delivery problems submitted by Air Force agencies and/or contractors. These problems are presented to the Chairman, who in turn submits for the consideration of MPB Associate Contractor, the proposed resolution of such problems. Each MPB Associate Contractor member has the authority to commit the Associate Contractor he represents and shall determine his own company's capability of accepting the proposed resolution of the problem and advise the Chairman.

12.2 OPERATION (Continued)

From this evaluation, the Chairman determines the appropriate action to achieve program schedule recovery. The Board also considers any other problems of MINUTEMAN production deliveries considered to be appropriate by the Chairman.

12.2.1 AFBM 60-59, "Master Equipment Schedules and Allocations"

Recognizing that AFBM Exhibit 60-59 represents the master equipment schedules and allocations, the Board considers and recommends appropriate action with regard to proposed changes to the published AFBM Exhibit 60-59. The Chairman, if he approves recommended changes by the Board, initiates the procurement action for quantities of equipment required and the schedules therefor. The Board recommends allocations and reallocations of deliverable end items insofar as that equipment affects the site activation function and weapon system assembly.

12.2.2 The Board recommends the acceptability of equipment with non-conformance/shortage conditions as alternates to indicated schedule delays.

12.2.3 The Board also monitors follow-on production, identifies potential problem areas, and undertakes to provide resolution of production problems.

12.2.4 The Chairman, if his judgement so dictates, takes appropriate

12.2.4 (Continued)

Contract Change Notification action to alleviate such problems as actions shall be considered normal procedure to be followed when acting within the scope of the contract for:

-effecting changes in delivery dates

-effecting changes in delivery destinations

-waiver to delivery condition/ship short authorization

-other production matters as might be alleviated by Contract Change Notification action.

12.2.5 Equipment configuration changes, which are the responsibility of the BSD MINUTEMAN Configuration Control Board, are specifically excluded from this authority.

APPENDIX A GLOSSARY

APPENDIX A GLOSSARY

Abbreviations

The following glossary of abbreviations is included for the information of the user of this plan. It includes all abbreviations used in this plan but is not intended to be a complete listing of abbreviations applicable to the MINUTEMAN Weapon System. For more complete listing of MINUTEMAN abbreviations reference should be made to STL 6600.4.2003 "Glossary of Terms, Guidance Equations Notations, and Abbreviations" (February 1960, revised May 1960).

A&C/O	Assembly and Checkout
ACO	Administrative Contract Officer
AFBM	Air Force Ballistics Missile
AFD	Air Force Directive
AF/DOD	Air Force/Department of Defense
AFH	Air Force Holding Account
AFLC	Air Force Logistic Command
AFM	Air Force Manual
AFPI	Air Force Procurement Instructions
AFPR	Air Force Plant Representative
AFQC	Air Force Quality Control
AFR	Air Force Regulation
AFTO	Atlantic Field Test Organization
	Air Force Technical Order
AGE	Aero-Space Ground Equipment

Abbreviations (Cont'd)

AMA	Air Materiel Area
AMC	Air Materiel Command
AMCM	Air Materiel Command Manual
AMCR	Air Materiel Command Regulation
ANA	Air Force - Navy Aeronautical
ASPR	Armed Services Procurement Regulation
ATC	Air Training Command
AVE	Airborne Vehicle Equipment
BMD	Ballistic Missile Division
BSD	Ballistic Systems Division
BSD/STL	Ballistic Systems Division/Space Technology Laboratories
CCN	Contract Change Notice
C of E	Corp of Engineers
CEP	Circular Error Probability
CFE	Contractor Furnished Equipment
CSA	Contractor Support Area
CSS	Contractor Storage Site
DCAS	Deputy Command Aero-Space
DME	Depot Maintenance Equipment
DMF	Depot Maintenance Facility
DOD	Department of Defense
D/SW	Directorate of Special Weapons
EAM	Electronic Accounting Machine
EWO	Emergency War Order

Abbreviations (Cont'd)

FDT	First Destination Transportation
FIIN	Federal Item Identification Number
FSE	Factory Support Equipment
FSN	Federal Stock Number
G&C	Guidance and Control
GEEIA	Ground Electronic Engineering Installation Agency
GFE	Government Furnished Equipment
GFP	Government Furnished Property
H&D	Hardened and Dispersed
IM	Inventory Manager
IPB	Illustrated Parts Breakdown
LF	Launch Facility
LCC	Launch Control Center
LCEB	Launch Control Equipment Building
LCF	Launch Control Facility
LOGAIR	Air Force Logistics Command
LSM	Logistics Systems Manager
LSS	Logistic Support Squadron
MATS	Military Air Transport Service
MCP	Master Change Proposal
MCP	Military Property Custodian
MGE	Maintenance Ground Equipment
OOAMA	Ogden Air Materiel Area
OOAMAP	Ogden Air Materiel Area Pamphlet

Abbreviations (Cont'd)

O&M	Operation and Maintenance
OGE	Operating Ground Equipment
OSS	Operational Storage Site
RP	Real Property
RPIE	Real Property Installed Equipment
R/V	Re-entry Vehicle
SAAMA	San Antonio Air Materiel Area
SAC	Strategic Air Command
SASMA	Directorate of Special Weapons
SATAF	Site Activation Task Force
SMSB	Strategic Missile Support Base
SNY	Station Serial Number
SPSP	Spare Parts Support Package
SRA	Specialized Repair Activities
STL	Space Technology Laboratories
STN	SAC Telephone Network
TCTO	Time Compliance Technical Order
TIF	Technical Information File
TO	Technical Order
WS	Weapon System
WSBSA	Weapon System Base Support Activity
WSM	Weapon System Manager
WSS	Weapon System Storage
WSSS	Weapon System Storage Site

APPENDIX B DEFINITIONS

APPENDIX B DEFINITIONS

Definitions

The following list of definitions is intended to clarify the terminology used throughout this plan and to provide up-to-date working definitions for the user of the plan. The list is not a complete glossary of terms pertinent to MINUTEMAN logistics; such a glossary does not exist, though more complete information may be found in STL 6600.4.2003 "MINUTEMAN Glossary of Terms, Guidance Equations Notations, and Abbreviations"; AFM 67-1 "USAF Supply Manual"; and AFM 11-1 "Glossary of Standardized Terms."

B-1 Administrative Contracting Officer (ACO) - a military officer or a civilian who has been appointed to enter into contracts on behalf of the government.

B-2 Aero-Space Ground Equipment (AGE) - All equipment required on the ground to make a weapon system operational in its intended environment. This includes all equipment required to install, launch, arrest, guide, control, direct, inspect, test, adjust, calibrate, appraise, gage, measure, assembly, disassemble, handle, transport, safeguard, store, actuate, service, repair, overhaul, maintain, or operate the system, subsystem, end item, or component. This definition applies regardless of the method of development, funding, or procurement. AGE is functionally subclassified only as operating ground equipment (OGE) and maintenance ground equipment (MGE). OGE is that AGE which is a functional part of system and which operates with the aerospace

Definitions (Cont'd)

B-2 Aero-Space Ground Equipment (Continued)

vehicle or end item as an essential operating element thereof. MGE is that AGE required to restore a system or end item to operating condition. (See also Operating Ground Equipment and Maintenance Ground Equipment.)

B-3 AFH Account (Industrial Property Account) - Stock record account number prefixed by "AFH" administered at a designated location and assigned to the Air Force Property Administrator at remote sites for the purpose of furnishing support to the contractor. It covers all types of Government Property required for contract support and is used during all phases of the MINUTEMAN Program. The Commander AFLC is responsible for the establishing of these accounts and requests for AFH accounts initiated by AFLC activities are forwarded to Air Force Logistics Command.

B-4 AFW Account - Weapon System Stock record sections and accounts are identified by the prefix "AFW", and are contained in Section 2, Volume XV of AFM 67-1. This type of account is a supply activity with supply responsibility and is used in requisitioning and accounting for all weapon system items used to support selected weapons. It pertains to and supports all operational phases of the MINUTEMAN Program. The AFW account is defined as follows:

a. Air Materiel Area/Air Force Depot Level - AFW accounts are assigned to authorized LSM's performing supply accounting

B-4 AFW Account (Cont'd)

a. (cont'd)

functions for those items which are required and stored at WSSS's to insure adequate support of a specific weapon system, e.g., MINUTEMAN. LSM maintains accountable records for all direct support items located at WSSS, CSS's for the purpose of rendering financial and item reports required in accordance with AFM 67-1, Volume XXIII.

b. Base Level - AFW sections of the applicable Air Force Base stock record account are assigned to bases concerned with the support Weapon Systems, at the discretion of the major air command. Stock records in AFW sections covering weapon system items will be identified by the appropriate weapon system designator code. One AFW account may be used at base level to support multiple weapon systems.

c. AFW Supply Section - The organizational component of the CSS and missile squadron which is responsible for receipt, storage, and issue of weapon system support items and reporting thereof. Each AFW Supply Section is assigned a station number to identify each CSS and missile squadron for accounting and inventory control purposes.

B-5 Assembly and Checkout - The integration of weapon system facility prior to acceptance by the Air Force.

Definitions (Cont'd)

B-6 Assembly and Checkout Contractor - The contractor assigned responsibility for the over-all scheduling, programming, and system checkout of associate contractor activities and equipment, and for the furnishing of specified support services which are common to several contractors.

B-7 Associate Contractor - A contractor responsible for designing, fabricating, and testing a subsystem of the weapon system, or responsible for assembling and testing the weapon system. These include the Assembly and Checkout Contractor, the Guidance and Control Contractor, the Re-entry Vehicle Contractor, and the Propulsion Contractors and Environmental Contractor.

B-8 Aero-Space Vehicle Equipment (AVE) - is that equipment which is an integral part of the missile proper, e.g., engines, G&C section, R/V, interstages. Formerly called "Airborne Equipment."

B-9 Circular Error Probability (CEP) - is that accuracy of the warhead expressed as the radius of the maximum circle within which the warhead will impact.

B-10 Contractor Furnished Equipment(CFE) - are those systems, subsystems, and components of the Weapon System unique to it and supplied by the contractor.

B-11 Contractor Administration - The performance of a Contracting Officer (ACO), or his authorized representative, of acts authorized by terms of a contract or in accordance with provisions of public

Definitions (Cont'd)

B-11 Contractor Administration (Cont'd)

laws, executive orders, or applicable regulations and instructions of the department assigned administrative responsibility for a contract.

B-12 Contractor Support Area (CSA) - That group of facilities, temporarily required by the Assembly and Checkout Contractor to accomplish assembly and checkout of the weapon system. It will serve as the contractor's central base of operations for facility and co[illegible] line interface surveillance, maintenance of RPIE, and for receiving, inspecting, functional testing as required, maintaining, storing, kitting, and transporting missiles, OGE and MGE to the various sites for assembly and checkout.

B-13 Contractor Storage Site (CSS) - A contractor operated facility utilized for furnishing logistic support (distribution, storage, and shipment) of peculiar weapon system support items direct to missiles squadrons or as otherwise directed by the LSM. In the MINUTEMAN program this area is part of the CSA.

B-14 Depot Level Maintenance - Is that maintenance which is the responsibility of the Air Force Logistics Command. It is concerned mainly with the repair of items which require higher skills or more specialized equipment than is practical to provide at the field level.

Definitions (Cont'd)

B-15 Depot Maintenance Equipment (DME) - Is that equipment used at the depot for the repair and overhaul of items of AGE returned to the depot for repair or modification.

B-16 Detailed Parts (Bits and Pieces) - As used in this plan, the term "detailed parts" refers to those items which are required by the Assembly and Checkout, Re-entry Vehicle Guidance and Control, and Environmental Contractors in the performance of the assembly and checkout task. These items will normally be Category III in value and will be consumed during Assembly and Checkout of the Weapon System.

B-17 Emergency War Order (EWO) - Is a system of communications (Telephone) used to carry launch commands between squadrons.

B-18 Federal Stock Number (FSN) - Consists of an applicable four digit class code number plus the seven digit federal item identification number, e.g., FSN 66105099406.

B-19 Field Level Maintenance - Field Level Maintenance is that maintenance which is the responsibility of the using command. It includes maintenance which requires higher skills or more specialized equipment than does Organizational Level Maintenance and consists mainly of isolating and repairing malfunctions to the next lower level of equipment than at the organizational level.

Definitions (Cont'd)

B-20 First-Line Life - The time lapse from the delivery of the guided missile until it is launched, expended, or becomes obsolete, and the support equipment until it is obsolete.

B-21 Factory Support Equipment (FSE) - Is that equipment brought into being or modified for use in the manufacture of parts, sub-assemblies, assemblies, or other major components of a Weapon System. It should be noted that some FSE may also be used as, and may therefore be classified as, MGE or OGE.

B-22 Flight - A complete integrated launch system which encompasses the equipment, facilities, and communications, attendant to one launch control and ten launch facilities.

B-23 Government Furnished Property (GFP) - Equipment furnished by the government to a contractor for installation and assembly as integral parts of items and systems being produced under contract.

B-24 Intersite Control and Communications System (Cable Plant) - A hardened, pressurized cable network to be used for interconnecting Launch Control Centers (LCC's) and Launchers. The cable plant will provide the communications media for commands, status reports, and/or other telephone service within the Weapon System.

B-25 Intersite Control and Communications System (Hardened Radio) - A medium frequency (MF) network using buried antennae to transmit command and control data signals to the Launcher equipment and missile.

Definitions (Cont'd)

B-26 Launch Control Equipment Building (LCEB) - A hardened facility of the LCF housing the standby diesel generator and environmental control units used by the LCC during the survival period.

B-27 LOGAIR - The Air Force Logistics Command controlled scheduled airlift program operating between Air Force Logistics Command activities, MATS aerial ports, and other designated points.

B-28 Logistics - The term Logistics, as used in this plan, means the adding of time and place utility to any given set of material, parts, components, and end items for the Weapon System.

B-29 Logistic Support Manager (LSM) - The Commander at the Air Materiel area designated by Headquarters Air Force Logistics Command, to perform the support management functions for one or more Weapon Systems. The Commander will designate a specific individual to exercise executive and administrative control over the management, requirement, and distribution functions accomplished by his staff relative to the selected range of items necessary to insure adequate support of assigned Weapon Systems during test flight training and tactical operations of these weapons.

B-30 Maintainability - Is the rapidity and ease with which operations and maintenance (O&M) can be performed to help prevent malfunctions or to correct them if they occur and is directly associated with reliability.

Definitions (Cont'd)

B-31 Maintenance - Is the routine, recurring support at organizational, field, and depot levels required to keep each MINUTEMAN Weapon System facility in such condition that it may be continually used at its original or design capacity and efficiency for its intended purpose.

B-32 Maintenance Ground Equipment (MGE) - Is that Aero-Space ground equipment required to restore a system or end item to operating condition. It includes that equipment which is used at the LF, LCF or SMSB to handle, transport, test, or assemble the Aero-Space vehicle, OGE, or other items of MGE. (See "Aero-Space Ground Equipment.")

B-33 Munitions Facilities - That portion of the SMSB where surveillance, assembly, checkout, maintenance, and inspection is performed on all ordinance components, including warheads, re-entry vehicles, and associated AGE required for operation of a missile wing. While defined as a part of the SMSB, these facilities are not required to be located on the same base.

B-34 Munitions Facility Contractor - The contractor having responsibility for the performance of assembly and checkout of equipment in the Munitions Facility. This contractor's efforts will be supported and integrated into the over-all assembly and checkout plan by the Assembly and Checkout.

Definitions (Cont'd)

B-35 Operating Ground Equipment (OGE) - Is that Aero-Space ground equipment which is a functional part of a system and which operates with the Aero-Space vehicle or end item as an essential operating element thereof. The term is further restricted to mean that equipment within the LF, LCF and Mobile LCF which monitors and controls the Aero-Space vehicle or which is utilized in support of the launch. (See "Aero-Space Ground Equipment.")

B-36 Organizational Level Maintenance - That maintenance which a using organization (missile squadron) performs on its own equipment, on-site, and with the use of its own skills.

B-37 Packaging - This includes the preservation, packaging and other protective measures afforded supplies and equipment.

B-38 Marking - Numbers, nomenclature, or symbols stamped or painted on, or otherwise affixed to, items or containers for identification are considered marking.

B-39 Package - The unit produced through the application of preservation, packaging and/or packing shall be known as a "package."

B-40 Preservation and Packaging - Is the application or use of protective measures to prevent deterioration. This includes the appropriate use of protective wrappings, cushioning, interior containers, and complete identification marking, up to, but not including, the exterior shipping container.

Definitions (Cont'd)

B-41 Storage - The act of storing, or the state of being stored, the keeping or placing of property in a warehouse, shed or open area is considered storage, and is a continuance of the receiving operations. It is preliminary to the shipping or issuing operations.

B-42 Peculiar Item - Item of supply having application to a single Weapon System.

B-43 Real Property Installed Equipment (RPIE) - Items of non-expendable equipment purchased and attached to or installed by the construction contractor and included in or on real property. RPIE meets both of the following criteria:

a. Is a common commercial-type equipment or is comprised primarily of commercial type components.

b. Equipment who function and location in the system is such as to not require AFSC/AFLC centralized configuration control and accounting.

B-44 Spares - Certain parts are considered "spares" depending upon their use, provisioning technique, or other criteria. In this plan "spares" is used to refer to those spare end items, identified as such, set forth in AFBM Exhibit 60-59, which are required to support Assembly and Checkout of the Weapon System.

B-45 Spare End Items - Those items set forth in AFBM 60-59 which are required to support assembly and checkout operations.

Definitions (Cont'd)

B-46 Spare Parts - As used in this plan, the term "spare parts" means that material capable of separate supply and replacement which is required for the field or organizational maintenance or repair of items being furnished under AFBM 60-59, RPIE, and the Intersite Control and Communications System as required by the Assembly and Checkout Contractor to accomplish assembly and checkout operations.

B-47 Spare Parts Support Package for Ground Support Equipment - Spare parts support packages for GSE (SPSP-GSE) will contain low cost, common usage spare parts required to insure continuous operation of major end items of ground support equipment, i.e., test equipment and ground servicing equipment used in direct support of the missile at the base level.

B-48 Standby Item - A replacement item of supply which, because of lack of movement or regulated status does not justify maintenance of a quantitative level but on which a quantity is required to meet one-time-emergencies to insure uninterrupted operation of local facilities, safeguard health, or protect personnel or property.

B-49 Strategic Missile Support Base (SMSB) - A Strategic Air Command installation, consisting of Technical Maintenance Facilities, Missile Handling Facilities and Munitions Facilities, charged with the responsibility of accomplishing supply support, field maintenance support and administrative support to a specified group of squadrons within its assigned geographic area.

Definitions (Cont'd)

B-50 Technical Maintenance Facilities - That portion of the SMSB located in the industrial area of the support base which is responsible for supply and administration of the operating force and field maintenance of the nonhazardous components of the Weapon System.

B-51 Missile Handling Facilities - That portion of the SMSB located remotely from inhabited areas of the support base in which loading, handling, transfer and storage of missiles is performed.

B-52 Munitions Facilities - That portion of the SMSB where surveillance, assembly, checkout, maintenance and inspection is performed on all ordnance components including warheads, re-entry vehicles and associated AGE required for operation of a missile wing. While defined as a part of the SMSB, these facilities are not required to be located on the same base.

B-53 Support System - A composite of equipment, skills, and techniques which has the capability of performing a clearly defined function in support of Assembly and Checkout.

B-54 Weapon System (WS) - A composite of equipment, skills, and techniques that forms an instrument of combat which usually, but not necessarily, has an air vehicle as its major operating element. The complete Weapon System includes all related equipment, materials, services and personnel required solely for the operation of the air vehicle, or other major elements of the system, so that