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LOGMARS CLEARINGHOUSE

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APPLICATIONS DIRECTORY

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DEFENSE LOGISTICS AGENCY

DEPOT MECHANIZATION SUPPORT OFFICE
C/O DEFENSE GENERAL SUPPLY CENTER
RICHMOND, VIRGINIA 23297

IN REPLY
REFER TO   DMECSO (LT. Rubin L. Patterson/(AV)695-4787/jg)   26 November 1985

SUBJECT: LOGMARS Clearinghouse Applications Directory

TO: SEE DISTRIBUTION

1. Your activity is encouraged to review the enclosed directory for applications that may have potential use within logistics operations. In instances where similar efforts are being pursued by other Services or Agencies, the LOGMARS Clearinghouse Applications Directory provides contacts for sharing information and detailed lessons learned. The input provided by each Service is current as of 1 September 1985.

2. All activities are encouraged to submit suggestions for LOGMARS projects to DLA DMECSO for review and inclusion in the DLA LOGMARS Program, as appropriate.

3. Any questions regarding the Clearinghouse Directory ~~or requests for additional copies~~ may be directed to LT Rubin Patterson, SC, USN, DLA DMECSO, (AV) 695-4787.

1 Encl

T. R. Wild
T. R. WILD
Captain, SC, U. S. Navy
Chief, DLA Depot Mechanization
    Support Office

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DEPARTMENT OF DEFENSE (DOD) APPLICATIONS DIRECTORY

Introduction:

__ The DOD challenge is to improve material readiness, while also seeking ways to lower overall costs. The Logistics Applications of Automated Marking and Reading Symbols (LOGMARS) Program, using bar code technology in automated logistics systems, is ideally suited to achieve these objectives. Implementation of LOGMARS will increase productivity, reduce error rates, and improve the responsiveness of automated systems.

This directory lists applications initiated by the various DOD components and the status of each. It is intended to eliminate duplicative development efforts within the components where application efforts are similar.

DOD components are encouraged to submit any new application efforts they are planning for inclusion in this directory. In this manner, duplicative developmental efforts can be avoided; hence, implementation can be more economically accomplished.

New applications, as they are identified, should be submitted in the format listed herein to Director, AMCPSCC, ATTN: SDSTO-T, Tobyhanna,PA. 18466-5097. The directory will be updated not more than quarterly and less often as input from the components dictate.

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The final report of the LOGMARS Joint Steering Group provided a sound basis for proceeding with the defense-wide implementation of LOGMARS. Based on these findings, the following actions have resulted:

The 3-of-9 bar code has been established as the DOD standard symbology for marking items of supply, unit packs, outer containers, and selected documents.

Defense components have proceeded with LOGMARS implementation with particular attention given to the logistics functional areas identified in the Joint Steering Group report.

Procedures and plans have been established to assure that these areas are systematically examined and appropriate LOGMARS applications are identified.

Each defense component has identified a focal point for monitoring progress; fostering, guiding, and facilitating implementation; and providing for coordination and participation with other components on areas of common interest.

While each component is to proceed with implementation, whenever feasible, all components must pursue opportunities for joint action to provide common solutions to common problems and to present a common approach to industry.

This clearinghouse directory is one means of monitoring the overall defense-wide LOGMARS program.

LOGMARS CLEARINGHOUSE APPLICATIONS

Contents

LOGMARS LEAD SITE DATA SHEET

1. MAJCOM/BASE: HQ, ATC/Randolph AFB, TX

2. POC: Lt. Col. Mathis, ATC/LGXA, AUTOVON 487-2778.

3. APPLICATION: Parts Automated Repairable Tracking System (PARTS). Tracking of repairable and DIFM (Due In From Maintenance) parts through the Base Repair Cycle.

4. LOCATION: 12 FTW, Randolph AFB, TX.

5. LEAD SITE MILESTONES:

   a. Identify Functional Requirements: Completed.

   b. Identify Hardware Requirements: Completed.

   c. Project Funds Available: March 1984, Completed.

   d. Equipment Contract Awarded: Completed.

   e. Equipment Received: 15 Dec 1984, Completed

   f. Test System: Completed.

   g. System Operational: 18 Mar 1985, Completed.

6. SYSTEM DESCRIPTION: To track status and location of repair cycle assets at Base level Production Control to achieve positive control of reparable assets throughout the repair cycle.

7. BASIC HARDWARE: One Burroughs B29 computer, 3 disk units, 19 B25 terminals, 3 Dot Matrix printers, 16 INTERMEC 1600 laser scanners, 16 INTERMEC 9500 laser readers, 2 TRILOG bar code printers, and required cables, modems, and accessories.

8. BASIC SOFTWARE: Developed by HQ ATC/LG.

9. FUNDING STATUS: Application was funded through LOGMARS Productivity Investment Funds.

10. EQUIPMENT ACQUISITION STATUS: Equipment in place, purchased through the Burroughs Contract/Phase IV Sperry Contract.

11. EXTENSION OF APPLICATION: HQ ATC is in process of exporting this system to its five other training bases.

12. COST BENEFIT ANALYSIS: The total savings during the first four years of the project will be $60,000 savings in inventory cost plus $30,000 for lost items, giving a total savings of $360,000 over the four year period. The system has produced savings in manpower because it has enabled reallocation of production control personnel to the maintenance shops.

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13. POSITIVE ASPECTS OF APPLYING LOGMARS TECHNOLOGY: To date this system has been very successful. The maintenance personnel are highly motivated and proud to have a system that enhances maintenance and makes their jobs easier as well as more productive. Productivity improvements have exceeded expectations. Repairable parts are going through the cycle faster; in fact, aircraft going through scheduled inspection/maintenance no longer have to wait for repairable parts to return from the repair cycle. The items are now completed before the scheduled aircraft inspection is over and are available, awaiting installation. The incidence of lost parts has dropped to zero and eight maintenance personnel have been returned to sortie producing jobs from the Production Control Section.

14. NEGATIVE ASPECTS OF APPLYING LOGMARS TECHNOLOGY: None.

LOGMARS LEAD SITE DATA SHEET

1. MAJCOM/BASE: HQ, AFLC Kelly AFB, TX.

2. POC: Mr. M. Mora, SA-ALC/DSMDC, AUTOVON 945-3391.

3. APPLICATION: Through the Wholesale Inventory Audit System (WIAS), inventory functions presently being performed manually will be automated, thus affecting more timely inventory scheduling, location surveys, location audit reconciliations physical item counts, and associated quality control checks.

4. LOCATION: SA-ALC Kelly AFB, TX.

5. LEAD SITE MILESTONES:

   a. PAR approval: Dec 83, Completed.

   b. DAR approval: Feb 84, Completed.

   c. DPD approval: Apr 84, Completed.

   d. Functional Description: Nov 84, Completed.

   e. Contract Award: Feb 85, Completed.

   f. System Specifications: Mar 85, Completed.

   g. Initial Operational Capability: Aug 85

   h. Final Operational Capability: Mar 86.

6. SYSTEM DESCRIPTION: Eliminate need for punch cards and use tape from computer, with bar code technology, to process inventory data through automated accumulation of critical data.

7. BASIC HARDWARE: System clock, disk storage, back-up power supply, 16 input/output ports, magnetic tape drive, remote terminals (stand-alone); printers, (dot matrix); printers (bar code); and PITs (Portable Input Terminals).

8. BASIC SOFTWARE: Package will include, but not be limited to, multiprogramming operating system; communications package, sort/merge restart/back-up, and text editor utilities.

9. EQUIPMENT ACQUISITION STATUS: Contract awarded to Ford Aerospace, February 1985.

10. EXTENSION OF APPLICATION: Will be exported to all Air Logistics Centers by the following schedule:

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                SA-ALC..................30 Aug 85
                OO-ALC..................30 Dec 85
                SM-ALC..................30 Dec 85
                OC-AIC.................. 7 Mar 86
                WR-ALC.................. 7 Mar 86
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11. POSITIVE ASPECTS OF APPLYING LOGMARS TECHNOLOGY: Will significantly enhance manpower utilization and will eliminate many manual functions presently accomplished. It will also reduce the manual creation and use of some forms.

14. NEGATIVE ASPECTS OF APPLYING LOGMARS TECHNOLOGY: None.

LOGMARS LEAD SITE DATA SHEET

1. MAJCOM/BASE: HQ, AFLC Robins AFB, GA.

2. POC: MR. B. D. Layfield, WR-ALC/DSMD, AUTOVON 468-5793

3. APPLICATION: Implementation of the Wholesale Receiving System will automate manual processes in the central receiving system through use of bar code technology. It will also replace outdated, non-repairable equipment.

4. LOCATION; WR-ALC Robins AFB, GA.

5. LEAD SITE MILESTONES:

    a. Implementation at development site....Jul 84...Completed.
    b. Implementation of WRS at SM-ALC.......Oct 84...Completed.
    c. Implementation of WRS at OO-ALC.......Dec 84...Completed.
    d. Implementation of WRS at OC-ALC.......Jan 85...Completed.
    e. Implementation of WRS at SA-ALC.......Mar 85...Completed.

6. SYSTEM DESCRIPTION: To support the use of bar code technology in wholesale receiving at all ALC's.

7. BASIC HARDWARE: T1990 minicomputers, LP300 line printers, T1810 dot matrix printers, TV950 VDTs, LS7000 bar code scanning devices, Bell 202T communication modems, CD1400 disk storage, MT1600 tape transports, ASM2400 communications modems, and solar/electric mini/micro regulators.

8. BASIC SOFTWARE: Vendor software, compilers, and utilities programs are supplied by Texas Instruments (TI).

9. FUNDING STATUS: Application funded by LOGMARS Productivity Investment Funds.

    a. Expended to Date:
        (1) Purchase of Equipment...........$2,080,000.
        (2) TDY, Per Diem..................   60,000.
        (3) Rental Equipment...............   23,000.
        (4) Supplies.......................   288,000.
        (5) Spare Parts....................   453,000.

    b. Dollar requirement to complete WRS:
        (1) Enhancement to WRS.............   395,000.
        (2) Contract Services (Upgrade
             to new AS3000 protocol)   15,000.

10. COST BENEFIT ANALYSIS: Estimated savings over the four year payback computation period is $4,125.OM. Payback period for PIF allocation is 2.83 years.

11. POSITIVE ASPECTS OF APPLYING LOGMARS TECHNOLOGY: WRS has replaced card driven systems and has automated previously done manual processes, substantially increasing support capability.

LOGMARS LEAD SITE DATA SHEET

1. MAJCOM/BASE: HQ, AFDSDO/LGS

2. POC: Mr. H. P. Vanzant, DSDO/LGSXX, AUTOVON 446-4104.

3. APPLICATION: The SBSS Retail Receiving System LOGMARS technology application will greatly improve data processing methods and procedures through automation of the receiving process by bar coding input data so it's in machine readable form.

4. LOCATION: HQ SAC Offutt AFB, Nebraska.

5. LEAD SITE MILESTONES:

   a. DAR approval.............................Jan 83
   b. DPD approval.............................Jan 83
   c. DPP approval.............................Jan 83
   d. Contract award...........................Feb 83
   e. Equipment installation...................Apr 83
   f. Initial operational capability......... FY 85
   g. Final operational capability........... FY 86

6. SYSTEM DESCRIPTION: A system which, by acquiring modern data entry devices and capturing input data in machine-readable form within the SBSS, will significantly improve receipt processing.

7. BASIC HARDWARE: Monarch Dynabyte 6600CPU, Ampex Dialogue 80 CRT/Key; dot matrix printers, DS-180's; T1820 KSR terminal, bar code readers, stand alone modems, rack mounted modems, stands, and cable

8. BASIC SOFTWARE: Frames processing for non-bar coded receipts, and receipts processing software.

9. EQUIPMENT ACQUISITION STATUS: Acquired through the Phase IV contract.

LOGMARS LEAD SITE DATA SHEET

1. MAJCOM/BASE: AIR FORCE.

2. POC: DSDO, Mr. Tom Jones/LGTT/Gunter AFS, Al 36114-6340, AUTOVON 446-4541.

3. APPLICATION: Base Level Cargo and Movement System LOGMARS Modular Development (CM-LOGMOD).

4. LOCATION: Gunter AFS, AL, (and MAJCOM base level activities).

5. LEAD SITE MILESTONES: TBD by lead site.

6. SYSTEM DESCRIPTION: Develop an automated Base Level Cargo Movement System to be used by the MAJCOMS.

7. BASIC HARDWARE: Targeted for multi-user contract.

8. BASIC SOFTWARE: Being developed by lead site personnel.

9. EXTENSION OF APPLICATION: All MAJCOMS.

10. POSITIVE ASPECTS OF APPLYING LOGMARS TECHNOLOGY:

    a. Eliminate obsolete punch cards and equipment.

    b. Maintain visibility and control of material and documentation.

    c. Interface capability with other transportation systems.

14. NEGATIVE ASPECTS OF APPLYING LOGMARS TECHNOLOGY: None.

LOGMARS LEAD SITE DATA SHEET

1. MAJCOM/BASE: HQ, AFLC/WR-ALC ROBINS AFB, GA.

2. POC: Ms Connie Peek, WR-ALC/DSMD, AUTOVON 468-5793.

3. APPLICATION: Consolidation/Containerization Point (CCP)

4. LOCATION: WR-ALC, Robins AFB, GA.
   SM-ALC, McClellan AFB, CA.
   WPLO, Seattle, WA.

5. LEAD SITE MILESTONES:

   a. Identify Functional Requirements: Completed.
   b. Identify Hardware Requirements: Completed.
   c. Project Funds Requirement: Completed.
   d. Equipment Contract Awarded: Completed.
   e. Equipment Received: TBD.

6. SYSTEM DESCRIPTION: The system will reduce the need for manual data entry by utilizing bar code scanners. LOGMARS will alleviate the requirement to handscribe nearly one quarter million receiving documents annually. The improved tracking system will be extended to the overseas destination in Europe and Pacific. This system will interface with the LOGMARS Cargo Movement system.

7. BASIC HARDWARE: Tandem nonstop CPU; Bar code capable printer; Portable input terminal.

8. BASIC SOFTWARE: In house programming.

9. FUNDING STATUS: Estimated cost of equipment, $640,500.

10. EQUIPMENT ACQUISITION STATUS: Army IBIS contract and Air Force Micro Contract.

11. EXTENSION OF APPLICATION: IOC, WR-ALC April 1986, FOC, SM-ALC May 1987; IOC, WPLO Seattle WA, December 1987.

12. COST BENEFIT ANALYSIS: Achieve maximum efficiency by mechanization of outdated manual system and at the same time take advantage of the LOGMARS technology. Estimated annual savings, $261,000.

13. POSITIVE ASPECTS OF APPLYING LOGMARS TECHNOLOGY:

   a. Improved productivity and reduced response time.

   b. Improve accuracy by eliminating the labor intensive practice of handscribing documents.

   c. Eliminate punch cards.

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d. Mechanize cargo scheduling function.

e. Obtain real time data management.

f. Interface with other transportation systems.

14. NEGATIVE ASPECTS OF APPLYING LOGMARS TECHNOLOGY:

a. Current equipment cannot be modified to meet requirements.

b. Personnel training of approximately 100 people on the new equipment and procedures.

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LOGMARS LEAD SITE DATA SHEET

1. MAJCOM/BASE: HQ AFLC/WARNER ROBINS AFB, GA.

2. POC: Ms Janet Smith, WR-ALC/DSMD, AUTOVON 468-5793.

3. APPLICATION: Wholesale Shipping System (WSS).

4. LOCATION: All Air Logistics Centers.

5. LEAD SITE MILESTONES:

    a. Identify Functional Requirements: Completed.

    b. Identify Hardware Requirements: Completed

    c. Project Funds Available: Completed

    d. Equipment Contract Awarded: Jul 85

6. SYSTEM DESCRIPTION: To provide an on-line data management system utilizing bar code technology. Interface with other systems by hardware or magnetic tape. The WSS will utilize tapes from existing systems to establish the data base, with little impact on those systems. WSS will provide the documentation to be used in Wholesale Receiving (WRS), Retail Receiving and automation of Surface Terminals.

7. BASIC HARDWARE: Tandem nonstop CPU and display terminals; Printronix P300 printer.

8. BASIC SOFTWARE: Developed by WR-ALC personnel.

9. FUNDING STATUS: Approximate cost of hardware -$2.0M.

10. EQUIPMENT ACQUISITION STATUS: Complete.

11. EXTENSION OF APPLICATION: SA-ALC, October 1985; OC-ALC, November 1985; SM-ALC, December 1985; OO-ALC, January 1986.

12. COST BENEFIT ANALYSIS: $2.7M over a 4 year period.

13. POSITIVE ASPECTS OF APPLYING LOGMARS TECHNOLOGY:

    a. Increased productivity, accuracy and timeliness in processing data.
    b. More efficient billing procedures.
    c. Expedited material and documentation processing.
    d. Provide shipment cancellation capability until released to carrier.
    e. Increase effective use of available transportation capability and funds.
    f. Provide capability to obtain selected management data on request.
    g. Eliminate obsolete card punch equipment.

h.   Utilize barcoded transportation control numbers (TCN) and portable input terminals for inventory control.
i.   Maintain visibility and control of material and documentation in the surface terminal.

14.   NEGATIVE ASPECTS OF APPLYING LOGMARS TECHNOLOGY:

a.   Current equipment cannot be modified to meet the new requirements.
b.   Current systems will require new development (i.e., D009, 0013, M024, 0024E).
c.   Personnel training on new equipment.

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LOGMARS LEAD SITE DATA SHEET

1. MAJCOM/BASE: HQ AFSC/Andrews AFB, MD.

2. POCs:

    a. HQ AFSC OPR: MSgt Jerry Kryzan, HQ AFSC/LGMW, AUTOVON 858-3544.

    b. Design office at AFWL Kirtland AFB, NM: Mr. Ed Hopkins, AFWL/SU (LOGMARS), AUTOVON 246-0571.

    c. ATC Test site at Lowry AFB, CO: CMSgt William C. Head, 3415 CMS/MAAP, AUTOVON 926-3966.

    d. MAC Test site at Kirtland AFB, NM: Mr. Larry Townsend, 1550 AMS/MAAP, AUTOVON 244-9939.

3. APPLICATION: Precision Measurement Equipment Laboratory Automated Management System (PAMS).

4. LOCATION: Implementation at 145 Precision Measurement Laboratories (PMEL) in the Air Force Metrology and Calibration Program.

5. LEAD SITE MILESTONES: TBD

6. SYSTEM DESCRIPTION: The use of LOGMARS bar-code technology will provide more accurate scheduling of Precision Measurement Equipment and better flow and control of assets within laboratories. PAMS will have the capability to access real time data that can be used to manage the total quantities of Air Force Metrology and Calibration program resources.

7. BASIC HARDWARE: TBD.

8. BASIC SOFTWARE: TBD.

9. FUNDING STATUS: TBD.

10. EQUIPMENT ACQUISITION STATUS: TBD.

11. EXTENSION OF APPLICATION: Eight additional laboratories will be added in the near future.

12. COST BENEFIT ANALYSIS: The estimated combined annual savings from the Basic Scheduling System, the Quality Assurance Program, and the Management Information System is 5.8 million dollars. The estimated annual savings projected for the Work Load Leveling, Delayed Calibration and Limited Calibration is 16.0 million dollars.

13. POSITIVE ASPECTS OF APPLYING LOGMARS TECHNOLOGY:

a. Save a significant amount of manpower.

b. Eliminate over 70% of the manual functions required by the current system.

c. Increase PMEL productivity.

d. Reduce the laboratories workload by reducing the total number of Delayed/Limited calibrations performed.

e. Provide PMEL manager with a data base he can access to retrieve data which is compiled in the format he requires.

14. NEGATIVE ASPECTS OF APPLYING LOGMARS TECHNOLOGY: TBD.

LOGMARS LEAD SITE DATA SHEET

1. MAJCOM/BASE: HQ USAF/ all munitions accounts worldwide.

2. POC: Major Earl B. Christy, HQ USAF/LEYW, AUTOVON 227-2389.

3. APPLICATION: Use of bar code labels on conventional and nuclear munitions and tactical missiles and components.

4. LOCATION: Implementation at over 200 Air Force, ANG and AFRES FK accounts plus munitions technical training at Lowry AFB, CO.

5. LEAD SITE MILESTONES:

    a. Identify Functional Requirements: Completed.

    b. Identify Hardware Requirements: Completed.

    c. Project Funds Available: Completed.

    d. Equipment Contract Awarded: May 1986.

    e. Equipment Received: August 1986.

    f. Test System: August 1986 - April 1987.

    g. System Operational: April 1987.

6. SYSTEM DESCRIPTION: To enhance combat support by completely automating munitions inventories, reporting and maintenance actions. The system will provide an independent, stand-alone system designed exclusively for munitions management.

7. BASIC HARDWARE: A microcomputer at each base with several printers, several video displays, disk drives, portable bar code readers, and bar code impact printers. The quantities will vary depending on size of the account and type of mission.

8. BASIC SOFTWARE: Requirements have been defined, approximately 150 of 300 programs have been completed.

9. FUNDING STATUS: FY 86 - 5 MILLION; FY 87 - 11.2 MILLION; FY 88 - 16.6 MILLION; FY 89 10.4 MILLION; FY 90 - 9.4 MILLION; FY 91 - 4.4 MILLION.

10. EQUIPMENT ACQUISITION STATUS: Request for proposal (RFP) due for imminent release.

11. EXTENSION OF APPLICATION: Could be applied to Strategic Missiles.

12. COST BENEFIT ANALYSIS: TBD (US Navy claims 80% reduction in inventory time.)

13. POSITIVE ASPECTS OF APPLYING LOGMARS TECHNOLOGY:

    a. More accurate data.
    b. More timely data.
    c. Less costly data.

14. NEGATIVE ASPECTS OF APPLYING LOGMARS TECHNOLOGY: Initial labeling effort will be time consuming.

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LOGMARS LEAD SITE DATA SHEET

1. MAJCOM/BASE: HQ AFSC

2. POC: Capt John Evans, HQ AFSC, AUTOVON 858-4391.

3. APPLICATION: Equipment Management Accounting System (EMAS)

4. LOCATION: Nine AFSC Logistics Materiel Control Activities (LMCAs). Implementation sites include the Air Force Weapons Laboratory, Kirtland AFB, NM: Air Force Geophysics Laboratory, Hascom AFB, MA; Air Force rocket Propulsion Laboratory, Edwards AFB, CA; Air Force Wright Aeronautical Laboratories, Wright-Patterson AFB, OH; Rome air Development Center, Griffiss AFB, NY; 4950 Test wing, Wright-Patterson AFB, OH; and 6585 Test Group, Holloman AFB, NM.

5. LEAD SITE MILESTONES:

   a. Requirement Approval: Feb 83.

   b. Specifications Completed by MAJCOM: Feb83.

   c. Contract Award: Feb 83.

   d. Initial Operating Capability: Sep 83.

   e. Final Operating Capability: Sep 85.

6. SYSTEM DESCRIPTION: Provides the capability to implement state-of-the-art bar code technology to improve accountability of over half a billion dollars worth of equipment assets in RDT&E centers. EMAS will cut the time devoted to inventories substantially. Each piece of equipment bears a permanent polycarbonate label with a bar coded number. The number is the key to accessing equipment account data stored in a mini computer. The data includes such information as scheduled maintenance, inspections due, serial number location, and warranty, as well as item description.

7. BASIC HARDWARE: Mini computer, terminals, portable bar-code scanners, bar-code label printer, dot matrix printer, and autodialer modem.

8. BASIC SOFTWARE: Data base management system, text editing software for program editing, and command developed software.

9. FUNDING STATUS: LOGMARS and AFSC funding.

10. EQUIPMENT ACQUISITION STATUS: Completed.

11. EXTENSION OF APPLICATION: To remaining 9 RDT&E activities in FY 86.

12. COST BENEFIT ANALYSIS: At a cost of $1 million, EMAS is expected to yield an estimated savings of nearly $4 million.

13. POSITIVE ASPECTS OF APPLYING LOGMARS TECHNOLOGY:

    a. Reduced manhours needed to manage.

    b. Reduced the potential for fraud, waste, and abuse by providing improved tracking for equipment loaned or transferred between activities and used by contractors.

    c. Provide real time equipment management and inventory control.

    d. Cut the time devoted to inventories.

    e. Enhance LMCA productivity.

    f. Total visibility of RDT&E equipment.

14. NEGATIVE ASPECTS OF APPLYING LOGMARS TECHNOLOGY: Initial accounts to be barcoded will be time consuming.

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LOGMARS LEAD SITE DATA SHEET

1. MAJCOM/BASE: HQ PACAF/Hickam AFB, HI.

2. POC: CMSgt. Sayer, HQ PACAF/LGX.

3. APPLICATION: Mobility Operations Base-Level LOGMARS Enhancement (MOBIL). Purpose of this project is to design a streamlined base-level cargo mobility process using source data automation and bar coding.

4. LOCATION: HQ PACAF, Hickam AFB, HI.

5. LEAD SITE MILESTONES: TBD.

6. SYSTEM DESCRIPTION: This system would place bar code markings on cargo to be electronically read as each increment is packed, as it is checked through the marshalling check-in point, and as it is loaded on the aircraft.

7. BASIC HARDWARE: Small computer; storage expansion; bar code readers; Dot Matrix Printer; Smart Terminal; Printer, high/low speed.

8. BASIC SOFTWARE: TBD.

9. FUNDING STATUS: TBD.

10. EQUIPMENT ACQUISITION STATUS: TBD.

11. EXTENSION OF APPLICATION: Possible AF wide implementation.

12. COST BENEFIT ANALYSIS: TBD.

13. POSITIVE ASPECTS OF APPLYING LOGMARS TECHNOLOGY: Will provide mobility managers with time marshalled versus scheduled time, cargo marshalled and location, frustrated cargo status, cargo loaded status, cargo remaining to be loaded, dangerous cargo and cargo not marshalled status. It would also automate most of the mobility forms, provide a record of materiel and equipment accountability for deployment and provide the basis for an unload/storage plan for use at the deployment base.

14. NEGATIVE ASPECTS OF APPLYING LOGMARS TECHNOLOGY: TBD

LOGMARS LEAD SITE DATA SHEET

1. MAJCOM/BASE: HQDA, Pentagon (ODCSLOG).

2. POC: Mrs. Schneider, DALO-PLS, AUTOVON 227-4143.

3. APPLICATION: Accountable Property Inventory System (APIS).

4. LOCATION: Pentagon

5. LEAD SITE MILESTONES:

   a. Identify Functional Requirements: Completed.

   b. Identify Hardware Requirements: Completed.

   c. Project Funds Available: Completed.

   d. Equipment Contract Awarded. Completed.

   e. Equipment Received. Completed.

   f. Test System: Completed.

   g. System Operational: Completed.

6. STAMMIS: Unique.

7. SYSTEM DESCRIPTION: Combined hardware and software system operates together to automate the recordkeeping of inventory and enable the user to take inventory rapidly and accurately. The system produces reports on demand which enable the user to generate working copies of inventory status and comply with reporting requirements.

8. BASIC HARDWARE: The word processing hardware required for the system is presented in general terms so as to describe the basic or minimum requirements for the system. Each item is discussed in turn, and all items must be available to ensure the operation of the system. Important - the word processor must be capable of supporting the CP/M 2.2 Operating System.

   a. Microprocessor - the microprocessor must be code compatible with the Intel 8080 and be currently supporting the required software. Additionally, it must have 64K bytes of memory, a full American Standard Code for Information Interchange (ASCII) keyboard with numeric keypad, a video display capable of 24 lines of 80 characters, connection facilities for a printer, communications, and a minimum of two floppy disk drives of 240K bytes each.

   b. Disk storage - the system must have two disk drives. The minimum requirement is for two 240K byte floppy disk drives. Alternatively, one of the drives may be substituted for a hard disk drive of at least 500K bytes if greater storage is needed for larger inventories. The disk drives may be either 8 inches or 5.25 inches.

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c. Printer - the printer must be constantly available for use by the system. A minimum of 16 characters per second (CPS) is recommended, any greater speed is dependent upon the amount of printing needed in the time allotted. The printer must be capable of printing 132 character positions and support the use of a tractor feeder. Pin-fed paper is recommended for the production of reports, although cut sheets may be used.

d. Portable, battery powered bar code reader - the bar code reader must support the DOD standard 3-of-9 bar code labels. At least 6,000 data bits of user memory, exclusive of programs, using the ASCII character set must be available. The system must support teletype terminal (TTY) communications at a minimum of 300 baud through a Radio Shack - 232C interface.

e. Bar code labels - DOD standard 3-of-9 bar code labels containing a five-digit alphanumeric imprinted on label stock of industry standard quality that can be mounted with its own adhesive to the items to be inventoried.

f. APIS is currently running on a CPT 8000 word processor.

9. BASIC SOFTWARE:

a. CP/M 2.2 - the operating system required for this application.

b. CBASIC - the programs are written in CBASIC. It is necessary that the CBASIC Run Program (CRUN238) version of this software be available for the programs.

10. FUNDING STATUS: The application has been funded by the user.

11. EQUIPMENT ACQUISITION STATUS: Equipment was purchased from industry specifically for this application. The software was purchased by the Army and is available to interested users.

12. EXTENSION OF APPLICATION: USATSA (FY-84).

13. COST BENEFIT ANALYSIS: To be completed.

14. POSITIVE ASPECTS OF APPLYING LOGMARS TECHNOLOGY : Provides automated reports and saves time conducting inventories.

15. NEGATIVE ASPECTS OF APPLYING LOGMARS TECHNOLOGY: None.

LOGMARS LEAD SITE DATA SHEET

1. MAJCOM/BASE: U.S. Military Academy (USMA).

2. POC: Mr. John Mandia, AUTOVON 688-2935/5181.

3. APPLICATION: Cadet Accountability Department Education Textbook (CADET).

4. LOCATION: U.S. Military Academy (USMA), West Point, NY.

5. LEAD SITE MILESTONES:

   a. Identify Function Requirements: Completed.

   b. Identify Hardware Requirements. Completed.

   c. Project funds Available: Completed.

   d. Equipment Contract Award: Completed.

   e. Equipment Received. Completed.

   f. Test System: Completed.

   g. System Operational: Apr 85.

6. STAMMIS: Unique.

7. SYSTEM DESCRIPTION: System will inventory textbooks and collect data to issue and charge cadets for textbooks.

8. BASIC HARDWARE: PBCRs with laser (8); bar code label printers (2); and data collection device (1).

9. BASIC SOFTWARE: West point Library Program. Developed by IBIS Corporation.

10. FUNDING STATUS: $40,000 (funded).

11. COST BENEFIT ANALYSIS: System will save USMA $23,000 per year in reduced labor costs over manual textbook issue program.

12. POSITIVE ASPECTS OF APPLYING LOGMARS SYMBOLOGY: Cost savings, 50 percent more accurate, speed of operation versus manual method, and increased accountability.

13. NEGATIVE ASPECTS OF APPLYING LOGMARS SYMBOLOGY: None.

LOGMARS LEAD SITE DATA SHEET

1. MAJCOM/BASE: US Military Academy (USMA)

2. POC: Mr. John P. Mandia, AUTOVON 688-2935/5181.

3. APPLICATION: Cadet Garment Tracking system.

4. LOCATION: USMA, West Point, NY.

5. LEAD SITE MILESTONES:

    a. Identify Functional Requirements: Completed.

    b. Identify Hardware Requirements: Completed.

    c. Project Funds Available: FY 86 (software only).

    d. Equipment Contract Awarded: Completed.

    e. Equipment Received. Completed.

    f. Test System: FY 86.

    g. System Operational: FY 86.

6. STAMMIS: MACOM unique.

7. SYSTEM DESCRIPTION: Using cloth labels tested at West Point, the system will be used to track the manufacture, issue, and turn-in of all garments manufactured at our Cadet Clothing Factory.

8. BASIC HARDWARE: PBCRs with laser scanner (2); bar code label printer (1); data collection device (1) (system will utilize existing hardware.)

9. BASIC SOFTWARE: To be developed.

10. FUNDING STATUS: Estimated $8,000 (software only).

11. EQUIPMENT ACQUISITION STATUS: Will utilize hardware from our CADET system.

12. COST BENEFIT ANALYSIS: Will allow manager of factory to track daily movement of his inventory which was not available until monthly inventories were performed.

13. POSITIVE ASPECTS OF APPLYING LOGMARS TECHNOLOGY: Will allow for direct credit or debit of garment issued or turned in from cadets utilizing less manpower in a shorter time frame.

LOGMARS LEAD SITE DATA SHEET

1. MAJCOM/BASE: TRADOC.

2. POC: Ms. Babington, AUTOVON 680-3885.

3. APPLICATION: Self-Service Supply Center (SSSC)

4. LOCATION: Fort Knox, KY.

5. LEAD SITE MILESTONES:

    a. Identify Functional Requirements: Completed.

    b. Identify Hardware Requirements: Completed.

    c. Project Funds Available: Completed.

    d. Equipment Contract Awarded: Completed.

    e. Equipment Received: Completed

    f. Test System: Completed.

    g. System Operational: Sep 84.

6. STAMMIS: Unique.

7. SYSTEM DESCRIPTION: System automates accounting and management of SSSC inventory. Performs point of sale and storage function of SSSC assets.

8. BASIC HARDWARE: Portable bar code reader (1); fixed bar code readers (2); bar code printer (1); printer converter (1); and acoustic couplers (2).

9. BASIC SOFTWARE: Being developed by TRADOC.

10. FUNDING STATUS : FY 84-86 PIF.

11. EQUIPMENT ACQUISITION STATUS: USAISSAA Contract.

12. EXTENSION OF APPLICATION: All TRADOC installations during FY84-86.

13. COST BENEFIT ANALYSIS: TBD.

14. POSITIVE ASPECTS OF APPLYING LOGMARS TECHNOLOGY: Accounting and inventory control functions will be simplified and done with a higher level of accuracy.

15. NEGATIVE ASPECTS OF APPLYING LOGMARS TECHNOLOGY: TBD.

D-1

LOGMARS LEAD SITE DATA SHEET

1. MAJCOM/BASE: HQ, TRADOC.

2. POC's: Maj. Motley, Mr. Buckley Smith, or Mr. Mike McGreer, AUTOVON
927-4334/5063.

3. APPLICATION: LOGMARS Trailer Transfer Points (TTP) Asset Accountability,
Korea.

4. LOCATION: Camps Casey, Humphries, Carroll, and Pusan, Korea.

5. LEAD SITE MILESTONES: Completed.

6. STAMMIS. Unique.

7. SYSTEM DESCRIPTION: The application allows visibility of trailer assets
throughout Korea at the touch of a button. Trailers are labeled with a bar
coded identification number which is scanned at each trailer transfer point and
the data is transmitted through a modem to the host computer to update the data
base.

8. BASIC HARDWARE: PBCR/Laser (2) at each TTP; Printer (IMTEC) (1) and an
EPROM BURNER (for burning programs into chips) at HQ 19th Support Command. WYSE
personal computers at HQ 19th Support Command and one for each TTP; Intel 310
Systems, one at HQ, and one at 69th Transportation Battalion; Modems for all
transfer and data collection points.

9. BASIC SOFTWARE: Database software.

10. FUNDING STATUS: Completed.

11. EQUIPMENT ACQUISITION STATUS: Completed.

12. EXTENSION OF APPLICATION: N/A.

13. POSITIVE ASPECTS OF APPLYING LOGMARS TECHNOLOGY: Will provide instant
visibility of trailer assets throughout Korea.

14. NEGATIVE ASPECT OF APPLYING LOGMARS TECHNOLOGY: None.

LOGMARS LEAD SITE DATA SHEET

1. MAJCOM/BASE: HQ, FORSCOM.

2. POC: Mr. Justice Bigbie, AUTOVON 588-2198/2647.

3. APPLICATION: Bulk Petroleum Management System (BPMS).

4. LOCATION: Fort McPherson, GA.

5. LEAD SITE MILESTONES:

   a. Identify Functional Requirements: Completed.

   b. Identify Hardware Requirements: Completed.

   c. Project Funds Available: Completed.

   d. Equipment Contract Awarded: Completed.

   e. Equipment Received: Completed.

   f. Test System: Completed.

   g. System Operational: Completed.

6. STAMMIS: Unique (BPMS).

7. SYSTEM DESCRIPTION: Fuel dispensed from transportation motor pools is accounted for via portable bar code readers. Bar code labels are attached to vehicles for identification and to the fuel pumps to identify the type of fuel. Both labels are scanned and the number of gallons are entered on the portable bar code reader keyboard.

8. BASIC HARDWARE: Portable bar code readers (2); modem (1); and acoustic coupler (1).

In addition to the basic hardware listed above, the system must also have a converter/receiver and magnetic tape drive located at the installation mainframe to receive the data for processing in the mainframe/STAMMIS system. The cost of the converter/receiver is approximately $20,000; however, it can be shared with other LOGMARS applications.

9. BASIC SOFTWARE: Bar Code reader software.

10. FUNDING STATUS: The application has been funded. The cost of each application is $6,200. This cost does not include the converter/receiver and magnetic tape drive cost of $20,000.

11. EQUIPMENT ACQUISITION STATUS: Equipment for lead site applications has been received. Additional equipment for another 20 installations is being procured via a central LOGMARS equipment acquisition. Deliveries from this procurement began in August 1984.

E-1

12. EXTENSION OF APPLICATION: FY-84 - 2 installations
                                FY-85 - 18 installations

13. COST BENEFIT ANALYSIS: Savings are estimated to be $18,000 annually per installation.

14. POSITIVE ASPECTS OF APPLYING LOGMARS TECHNOLOGY: Eliminates manual worksheets and keypunching requirements. Increases accountability accuracy.

15. NEGATIVE ASPECTS OF APPLYING LOGMARS TECHNOLOGY: Minimal personnel training.

LOGMARS LEAD SITE DATA SHEET

1. MAJOR ARMY COMMAND (MACOM)/BASE: FORSCOM.

2. POCs: Mr. Risk, Fort Hood, AUTOVON 737-3490; MAJ Davis, Fort Stewart,
AUTOVON 870-3659.

3. APPLICATION: Installation Property Book.

4. LOCATION: Fort Hood and Fort Stewart.

5. LEAD SITE MILESTONES:

   a. Identify Functional Requirements: Completed.

   b. Identify Hardware Requirements: Completed.

   c. Project Funds Available: Completed.

   d. Equipment Contract Awarded: Completed.

   e. Equipment Received: Completed.

   f. Test System: Completed:

   g. System Operational: Completed.

6. STAMMIS: DIO Property Book – This application is a duplication of the Army
Medical Department Property Book Accounting System (AMEDDPAS) for which the
Office of The Surgeon General (OTSG) is the functional proponent and US Army
Health Service Command (USAHSC) is the proponent agency. USAHSC has lead site
responsibility for AMEDDPAS. Additional data is shown in section H.

7. SYSTEM DESCRIPTION: The systems printer will produce a bar coded label/
tag with appropriate identification number for attachment to each piece of
property requiring property book accountability. Portable bar code scanners
will be used to conduct regulatory inventories instead of the current method of
producing hard copies by hand receipt/inventory data. Inventories will be
conducted by accountable property personnel in their respective area. Upon
completion of the scanning process, the data contained in the portable scanner
will be transmitted through an acoustic coupler to the converter/receiver for
subsequent interface with mainframe computer/STAMMIS.

8. BASIC HARDWARE: Portable bar code readers (9); bar code printer with CRT
(1); printer converter (1); modem (1); and acoustic coupler (1).

In addition to the basic hardware listed above, the system must also have a
converter/receiver and magnetic tape drive located at the installation mainframe
to receive the data for processing in the mainframe/STAMMIS system.

E-2

The cost of the converter/receiver is approximately $20,000; however, it can be shared with other LOGMARS applications.

9. BASIC SOFTWARE: Bar code reader software.

10. FUNDING STATUS: The application has been funded. The cost of each application is $39,100. This cost does not include the converter/receiver and magnetic tape drive cost of $20,000.

11. EQUIPMENT ACQUISITION STATUS: Equipment for lead site applications has been received. Additional equipment for another 22 installations is being procured via a central LOGMARS equipment acquisition. Deliveries from this procurement are scheduled to begin in May 1984.

12. EXTENSION OF APPLICATION: FY 84 - 10 installations.
                                 FY 85 - 12 installations.

13. COST BENEFIT ANALYSIS: Savings are estimated to be $2,600 annually per installation.

14. POSITIVE ASPECTS OF APPLYING LOGMARS TECHNOLOGY: Provide quarterly property book accountability accuracy and speed up the inventory process.

15. NEGATIVE ASPECTS OF APPLYING LOGMARS TECHNOLOGY: Current bar code equipment configuration calls for the transmission of data in the handheld terminal to a converter/receiver device where it is stored on a magnetic computer tape. This tape is input into an AMEDDPAS processing cycle. With the current extension of project VIABLE to all CONUS installations and its communication capabilities, a more efficient method of transmitting data would be input directly to a computer at the supporting regional data center (RDC) for storage on disk until an AMEDDPAS cycle was processed, thereby eliminating the requirement for the converter/receiver.

LOGMARS LEAD SITE DATA SHEET

1. MAJCOM/BASE: HQ, FORSCOM

2. POC: CPT Taylor, AUTOVON 927-4289/5785.

3. APPLICATION: Automated Cargo Documentation System.

4. LOCATION: Fort Eustis, VA., 7th Transportation Group.

5. LEAD SITE MILESTONES:

    a. Identify Functional Requirements: Completed.

    b. Identify Hardware Requirements: Completed.

    c. Project Funds Available: Completed.

    d. Equipment Contract Awarded: Completed.

    e. Equipment Received. Completed.

    f. Test System. Completed.

    g. System Operational: Completed.

6. STAMMIS: Unique.

7. SYSTEM DESCRIPTION: The systems printer will print bar coded labels which will be attached to cargo being loaded on ships, providing intransit visibility of cargo in an automated mode to greatly facilitate control and rapid unloading/movement at the port of entry.

8. BASIC HARDWARE: PBCR (30) bar code printers (5); and acoustic couplers (5).

9. BASIC SOFTWARE: Bar code reader software.

10. FUNDING STATUS: Funded.

11. EQUIPMENT ACQUISITION STATUS: Completed.

12. EXTENSION OF APPLICATION : None

13. COST BENEFIT ANALYSIS: TBD

14. POSITIVE ASPECTS OF APPLYING LOGMARS TECHNOLOGY: Increase the speed of loading vessels and facilitating the control of materiel.

15. NEGATIVE ASPECTS OF APPLYING LOGMARS TECHNOLOGY: None.

LOGMARS LEAD SITE DATA SHEET

1. MAJCOM/BASE: HQ, FORSCOM

2. POC: CPT Sue Junkers, AUTOVON 870-8127

3. APPLICATION: Retail Receiving/Receipt Processing (Divisional DSU) Class IX.

4. LOCATION: Fort Steward, GA, and 24th ID (Mech).

5. LEAD SITE MILESTONES:

    a. Identify Functional Requirements: Completed.

    b. Identify Hardware Requirements: Completed.

    c. Project Funds Available: Completed.

    d. Equipment Contract Awarded: Completed.

    e. Equipment Received: Completed.

    f. Test System: May 84.

    g. System Operational: Jun 84.

6. STAMMIS: DS4.

7. SYSTEM DESCRIPTION: The system will read bar coded labels being produced and affixed to materiel at depot operations. The label will contain the required receipt data elements (D6S/DD Form 1348-1) on each unit pack destines for the using unit. Receipt of inbound materiel will be accomplished using scanning equipment to record the necessary data directly off the materiel and entry of selected data by the operator. The receipt data will be stored in the scanning device for subsequent transmittal to a host computer for data entry and processing in DS4.

8. BASIC HARDWARE: Fixed bar code reader (1); portable bar code readers (4); and bar code printer (1).

9. BASIC SOFTWARE: Bar code reader software and Sycor software.

10. FUNDING STATUS: The lead site application has been funded at an estimated cost of $90,000.

11. EQUIPMENT ACQUISITION: Completed.

12. EXTENSION OF APPLICATION: None.

13. COST BENEFIT ANALYSIS: TBD.

14.   POSITIVE ASPECTS OF APPLYING LOGMARS TECHNOLOGY: The system will reduce errors by bar code identification of materiel and eliminate the manual completion of documentation.

15.   NEGATIVE ASPECTS OF APPLYING LOGMARS TECHNOLOGY: New equipment training and acceptance can be a problem.

LOGMARS LEAD SITE DATA SHEET

1. MAJCOM/BASE: HQ, FORSCOM.

2. POC: Mr. Coats, AUTOVON 737-7711.

3. APPLICATION: Maintenance Automated Job Order Reporting System (MAJORS).

4. LOCATION: Fort Hood, TX.

5. LEAD SITE MILESTONES:

    a. Identify Functional Requirements: Completed.

    b. Identify Hardware Requirements: Completed.

    c. Project Funds Available: Completed.

    d. Equipment Contract Awarded: Completed.

    e. Equipment Received: Completed.

    f. Test System: Completed.

    g. System Operational: Completed.

6. STAMMIS: Unique.

7. SYSTEM DESCRIPTION: Maintenance job order status is tracked through the installation maintenance facility using bar code scanning devices and CRTs at each of 32 work stations.

8. BASIC HARDWARE: Bar code readers (32) attached to existing CRTs.

9. BASIC SOFTWARE: Scanner software.

10. FUNDING STATUS: Funded.

11. EQUIPMENT ACQUISITION STATUS: Completed.

12. EXTENSION OF APPLICATION: Not to be considered for extension until completion of test evaluation.

13. COST BENEFIT ANALYSIS: TBD.

14. POSITIVE ASPECTS OF APPLYING LOGMARS TECHNOLOGY: Instant status of individual work orders is available.

15. NEGATIVE ASPECTS OF APPLYING LOGMARS TECHNOLOGY: None.

LOGMARS LEAD SITE DATA SHEET

1. MAJCOM/BASE: HQ, FORSCOM

2. POC: Mr. Vick, AUTOVON 737-5803

3. APPLICATION: SAILS Inventory Location Survey.

4. LOCATION: Fort Hood, TX.

5. LEAD SITE MILESTONES:

   a. Identify Functional Requirements: Completed.

   b. Identify Hardware Requirements: Completed.

   c. Project Funds Available: Completed.

   d. Equipment Contract Awarded: Completed.

   e. Equipment Received: Completed.

   f. Test System: Completed.

   g. System Operational: Jul 84.

6. STAMMIS: SAILS (Fort Hood) unique.

7. SYSTEM DESCRIPTION: The systems printer will produce bar coded storage labels with appropriate bar coded data. A bar code scanner will be used, in lieu of cards or listings, to perform physical inventory and location survey functions. Data required to accomplish either function will be downloaded from the host computer/STAMMIS into the portable scanning device. The operator will be prompted by the device to perform appropriate inventory or location survey procedures. Upon completion of the function, the data records in the scanning device will be transferred to the host computer for STAMMIS processing.

8. BASIC HARDWARE: Portable bar code readers (10); bar code printer with CRT (1); printer converter (1); Modem (1); and acoustic coupler (1).

9. BASIC SOFTWARE: Scanner software and software to interface with STAMMIS system.

10. FUNDING STATUS : Funded - $57,300.

11. EQUIPMENT ACQUISITION STATUS: Completed

12. EXTENSION OF APPLICATION: Test application is not currently exportable to other installations. (Awaiting VIABLE.)

13.   COST BENEFIT ANALYSIS: Estimated to save $6,000 annually per installation.

14.   POSITIVE ASPECTS OF APPLYING LOGMARS TECHNOLOGY: Greater accuracy and reduced inventory/location survey time.

15.   NEGATIVE ASPECTS OF APPLYING LOGMARS TECHNOLOGY: None yet noted.

LOGMARS LEAD SITE DATA SHEET

1. MAJOR ARMY COMMAND (MACOM)/BASE: HQ, FORSCOM.

2. POC: Ms. Davis, AUTOVON 929-2888/5317.

3. APPLICATION: Receipt Processing.

4. LOCATION: Fort Ord, CA and 7th Infantry Division (Light).

5. LEAD SITE MILESTONES:

    a. Identify Function Requirements: Completed.

    b. Identify Hardware Requirements: Completed.

    c. Project Funds Available: Completed.

    d. Equipment Contract Awarded: Jul 84.

    e. Equipment Received: Nov 84.

    f. Test System: Jan - Mar 85.

    g. System Operational: 1 Mar 85.

6. STAMMIS: SAILS and DS4 Interface.

7. SYSTEM DESCRIPTION: The use of LOGMARS technology in the retail receiving process is predicated on bar coded labels being produced and affixed to materiel at depot operations. The label will contain the required receipt data elements (DS6/DD Form 1348-1 on each unit pack destined for the using unit. Receipt of inbound materiel will be accomplished using scanning equipment to record the necessary data directly off the materiel and entry of selected data by the operator. The receipt data will be stored in the scanning device for subsequent transmittal to a host computer for data entry and processing in the SAILS in the SAILS and DS4 systems.

8. BASIC HARDWARE: Bar code printer (1); portable bar code readers (10); converter/receiver (1); and acoustic couplers (2).

9. BASIC SOFTWARE: Scanner Software.

10. FUNDING STATUS: Completed.

11. EQUIPMENT ACQUISITION STATUS: In process.

12. EXTENSION OF APPLICATION: None.

13. COST BENEFIT ANALYSIS: TBD.

14. POSITIVE ASPECTS OF THE NEW LOGMARS SYSTEM: TBD.

15. NEGATIVE ASPECTS OF THE NEW LOGMARS SYSTEM: TBD.

LOGMARS LEAD SITE DATA SHEET

1. MAJCOM/BASE: HQ, AMC

2. POC's: Ms. Scaman, AMC , AUTOVON 284-8497; Ms.Miller,
Tooele
Army Depot (TEAD), AUTOVON 790-2632.

3. APPLICATION: Ammunition Inventory/Location Survey.

4. LOCATION: Tooele Army Depot, UT

5. LEAD SITE MILESTONES:

    a. Identify functional requirements: Completed

    b. Identify hardware requirements: Completed

    c. Project funds available: Completed

    d. Equipment contract awarded: Completed

    e. Equipment received: Completed

    f. Test system: Apr 84 - Mar 85

    g. System operational: Jun 85

6. SYSTEM DESCRIPTION: Portable bar code readers (PBCRs) will
be
downloaded from the mainframe depot computer with the location
information necessary to prompt inventory counters to the proper
inventory location. The storage locations will be identified
with the bar coded labels.

7. BASIC HARDWARE: PBCRs (8), bar code impact label printers
(2),
microprocessor with line printer and video display (1), and disk
drives (2).

8. BASIC SOFTWARE: Download of physical inventory file to
microprocessor; develop printer format for label; format
programs for inventory prompting routines.

9. FUNDING STATUS: Estimate -$80,000 (funded).

10. EQUIPMENT ACQUISITION STATUS: Local buy.

11. EXTENSION OF APPLICATION: To be proliferated at 14 sites
in
1985.

12. COST BENEFIT ANALYSIS: Cost benefit analysis will be
completed not later than 6 months after application becomes
operational.

13. POSITIVE ASPECTS OF APPLYING LOGMARS TECHNOLOGY:

    a. Accurate and timely capture of data.

    b. Elimination of keypunching and punch cards.

    c. Reduction of travel time by inventory counters.

14. NEGATIVE ASPECTS OF APPLYING LOGMARS TECHNOLOGY: Initial labeling effort will be costly and time consuming.

LOGMARS LEAD SITE DATA SHEET

1. MAJCOM/BASE: HQ, AMC

2. POC: Mr. Fred E. Nevarr, AMC, AUTOVON 284-9238.

3. APPLICATION: Automated Labor Production System (ALPS) (applicable to maintenance directors only).

4. LOCATION: Corpus Christi Army Depot (CCAD), TX

5. LEAD SITE MILESTONES:

    a. Identify functional requirements: Completed.

    b. Identify hardware requirements: Completed.

    c. Project funds available: Completed.

    d. Equipment Contract awarded: Completed.

    e. Equipment received: Completed

    f. Test System: Completed

    g. System operational: Completed.

6. SYSTEM DESCRIPTION: Bar code input by reading labels to identify and permit access to the system. May also be used to identify job order number, project control number, and operational project codes.

7. BASIC HARDWARE: SCANMARK Printer Markem MDLU1233 ($13,500).

8. BASIC SOFTWARE; Not applicable.

9. TYPE SYSTEM: MACOM-unique.

10. FUNDING STATUS; No funding required. Uses same equipment as Maintenance Shop Floor System (MSFS).

11. EQUIPMENT ACQUISITION STATUS: Same as for MSFS

12. EXTENSION OF APPLICATION: Same as for MSFS. Plan being developed for follow-on (non-MSFS) applications.

13. COST BENEFIT ANALYSIS: NA

14. POSITIVE ASPECTS OF APPLYING LOGMARS TECHNOLOGY:

    a. Reduces manual entry of input data.

    b. Permits on-line initial validation of data entered.

c. Reduces error rate.

15. NEGATIVE ASPECTS OF APPLYING LOGMARS TECHNOLOGY: Bar code labels easily destroyed/mutilated thereby causing a "no read."

LOGMARS LEAD SITE DATA SHEET

1. MAJCOM/BASE: HQ, AMC

2. POCs: Mr. Tozser, AMC, AUTOVON 284-9273; Mr. Guldin, Letterkenny Army Depot (LEAD), AUTOVON 238-7652.

3. APPLICATION: Automated Self-Service Supply Centers (ASSSC).

4. LOCATION: LEAD, Chambersburg, PA.

5. LEAD SITE MILESTONES:

    a. Identify functional requirements: Completed.

    b. Identify hardware requirements: Completed.

    c. Project funds available: Completed.

    d. Equipment contract awarded: Completed

    e. Equipment received: Completed

    f. Test system: Completed.

    g. System operational: Completed.

6. SYSTEM DESCRIPTION: After affixing bar coded labels to each item, automated inventories will be conducted, recorded, and verified using PBCRs. The bar code label will also be used on credit cards to identify customers and to provide a sales receipt identifying each item that the customer has purchased and the individual cost of the item.

7. BASIC HARDWARE: Microprocessor, PBCRs with wand scanners, keyboard console, video display unit, line printer, bar code label printer, and acoustic couplers.

8. BASIC SOFTWARE: Ryan McFarland, common business-oriented language (COBOL).

9. FUNDING STATUS: Estimate - $33,000 (funded).

10. EQUIPMENT ACQUISITION STATUS: Completed.

11. EXTENSION OF APPLICATION: To be proliferated at 25 sites in 1984 and 1985.

12. COST BENEFIT ANALYSIS: Not complete. Initial review indicates bar code label input entry, label generation, inventory, and reordering savings as opposed to manual/semiautomated procedures, Cost benefit analysis will be completed 6 months after application becomes operational.

13. POSITIVE ASPECTS OF APPLYING LOGMARS TECHNOLOGY: Will reduce time spent on sales receipts, posting customer balances, inventory balances, and reorder quantities.

14. NEGATIVE ASPECTS OF APPLYING LOGMARS TECHNOLOGY: Will require initial resource expenditures to create labels, post current unit prices, and set up customer accounts.

1. MACOM/BASE: HQ, AMC.

2. POC: Mr. Ricky Horton, Depot Systems Command, (DESCOM) AUTOVON 238-7926; Mr. Cowling, DESCOM AUTOVON 238-7921.

3. APPLICATION: Automated Tool Control Inventory System (ATCIS).

4. LOCATION: Tooele Army Depot (TEAD),UT and Sacramento Army Depot (SAAD), CA.

5. LEAD SITE MILESTONES:

   a. Identify functional requirements: Completed.

   b. Identify hardware requirements: Completed.

   c. Project funds available: FY-85.

   d. Equipment contract awarded: May 84.

   e. Equipment received: Nov 85.

   f. Test system: Nov 85 - Jan 86.

   g. System operational: Feb 86.

6. SYSTEM DESCRIPTION: ATCIS will use bar coding technology in the following phases:

   a. Issues and turn-ins. In order to receive or turn in a tool, the customer will present a barcoded identification badge to the tool crib attendant. With the bar code reader interfaced with cathode ray tubes (CRTs) at the tool crib counters, the attendant with key/scan in the appropriate transaction. The bar code on the identification badge will be scanned and computer checks will automatically be performed to determine badge validity. The attendant also scans the tools issued and/or received. Upon transaction termination, the computer, tool, and customer files are upgraded automatically. A hard copy of the issue/receipt will automatically be generated for the customer.

   b. Inventory. Barcoded location and tool identification labels will be scanned with a PBCR. Items will be counted by the operator and quantity keyed into the PBCR. Upon completion of all scheduled inventories, the data will be uploaded to the computer for records update.

7. BASIC HARDWARE: Microcomputers, line printers, CRTs, fixed bar code reader (FBCR), PBCR, and serial impact bar code printer.

8. BASIC SOFTWARE: TBD

F-4

9. FUNDING STATUS: Completed.

10. EQUIPMENT ACQUISITION STATUS: Programmed for acquisition in FY-85 by United States Army Information Systems Selection and Acquisition Agency (USAISSAA).

11. EXTENSION OF APPLICATION: It will be extended to 13 depots in FY-86.

12. COST BENEFIT ANALYSIS: Initial estimates predict a cost avoidance of approximately $400,000 per year.

13. POSITIVE ASPECTS OF APPLYING LOGMARS TECHNOLOGY:

    a. Increased productivity.

    b. Improved accuracy.

    c. Better management control.

14. NEGATIVE ASPECTS OF APPLYING LOGMARS TECHNOLOGY: Tools do not lend themselves to bar code labels and, at the present time, laser etching does not appear to be economical.

LOGMARS LEAD SITE DATA SHEET

COMMAND/AGENCY: HQ, AMC

POC: Mr. Scanlan, AMC, AUTOVON 284-8497; Mr. Girard, NCAD, AUTOVON

TITLE: General Supply Inventory and Location Survey.

LOCATION: NCAD, New Cumberland, PA.

PROJECT MILESTONES:

Identify functional requirements: Completed.

Identify hardware requirements: Completed.

Request funds available: Completed.

Equipment contract awarded: Completed.

Equipment received: Completed.

Test system: Completed.

System operational: Completed.

SYSTEM DESCRIPTION: PBCRs will be downloaded from the mainframe depot computer with the location information necessary to prompt inventory counters to appropriate inventory location. The storage locations will be identified with bar code labels.

LOGMARS HARDWARE: PBCRs with laser scanners (31) and dot matrix bar code printers (9).

LOGMARS SOFTWARE: Programmable bar code reader capability; develop printer for the loose issue labels; capability to operate in quality check mode.

FUNDING STATUS: Estimate - $240.,000 (funded).

LOGMARS ACQUISITION STATUS: Completed

EXTENSION OF APPLICATION: To be proliferated at 13 sites in 1986.

COST BENEFIT ANALYSIS: Cost benefit analysis will be completed not later than six months after application becomes operational.

THE ADVANTAGES OF APPLYING LOGMARS TECHNOLOGY:

Improved and timely capture of data.

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b. Elimination of Keypunching.

c. Reduction of travel time by inventory counters.

14. NEGATIVE ASPECTS OF APPLYING LOGMARS TECHNOLOGY: Initial storage location labeling effort will be costly and time consuming

LOGMARS LEAD SITE DATA SHEET

. MAJCOM/BASE: HQ, AMC

. POC: Mr. Burt, Rock Island Arsenal (RIA), IL, AUTOVON 793-3900.

.. APPLICATION: Installation Equipment Management Bar Code Inventory System
(IEM-BARCIS).

4. LOCATION: Electronics Research & Development Command, Fort Monmouth, NJ.

. LEAD SITE MILESTONES:

    a. Identify functional requirements: Completed.

    b. Identify hardware requirements: Completed

    c. Project funds available: Completed

    . Equipment contract awarded: Completed.

    e. Equipment received: Completed.

    f. Test system: Completed.

    g. System operational: Completed.

. SYSTEM DESCRIPTION: Will provide a system for conducting physical
inventories of installation equipment using a PBCR to scan labels attached to
each item to be inventoried.

. BASIC HARDWARE: PBCRs with wand scanners, acoustic couplers, and bar code
label printers.

. BASIC SOFTWARE: COBOL applications programs.

9. FUNDING STATUS: Estimated - $23,000 (funded).

10. EQUIPMENT ACQUISITION STATUS: USAISSAA acquisition.

    EXTENSION OF APPLICATION: To be proliferated at 21 sites in 1984, 24 sites
    in 1985, and 5 sites in 1986.

    COST BENEFIT ANALYSIS: System is estimated to save $6.1 million during the
    first 5 years of operation by reducing the time required to do inventories.

    POSITIVE ASPECTS OF APPLYING LOGMARS TECHNOLOGY: Will reduce inventory
    time by approximately 60 percent.

    NEGATIVE ASPECTS OF APPLYING LOGMARS TECHNOLOGY: Will require initial
    labor expenditure to apply labels.

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LOGMARS LEAD SITE DATA SHEET

1. MAJCOM/BASE: HQ, AMC

2. POC: Mr. Ricky Morton, DESCOM, AUTOVON 238-7926.

3. APPLICATION: Maintenance Shop Floor System (MSFS).

4. LOCATION: Corpus Christi Army Depot (CCAD), TX.

5. LEAD SITE MILESTONES:

   a. Identify functional requirements: Completed.

   b. Identify Hardware requirements: Completed.

   c. Project funds available: Completed.

   d. Equipment contract awarded: Completed

   e. Equipment received: Completed.

   f. Test system: Completed.

   g. System operational: Completed.

6. SYSTEM DESCRIPTION: Bar code technology will permit data for tracking reparables between shops and/or work centers to be input directly by scanning the label with a FBCR and immediately updating the transaction files. When PBCRs are used, transactions will be stored until shift end and then uploaded to the mainframe for subsequent processing.

7. BASIC HARDWARE: PBCRs (65); bar code printers (12); FBCRs (23); one microprocessor, 48k; and two floppy disk drives with erasable program memory writer.

8. BASIC SOFTWARE: Application program generator software.

9. FUNDING STATUS: Completed.

10. EQUIPMENT ACQUISITION STATUS: Completed.

11. EXTENSION OF APPLICATION: Six sites in 1986.

12. COST BENEFIT ANALYSIS: Cost benefit analysis will be completed 6 months after application becomes operational.

13. POSITIVE ASPECTS OF APPLYING LOGMARS TECHNOLOGY:

   a. Reduce manual entry of input data.

   b. Permits on-line initial validation of data entered.

c. Reduced error rate.

d. Provides data in a timely manner.

e. Permits flexibility in development of transactions.

14. NEGATIVE ASPECTS OF APPLYING LOGMARS TECHNOLOGY:

a. Software capabilities restrict scope of application.

b. Barcoded labels are easily destroyed/mutilated, thereby causing a "no read."

c. Preventive maintenance of equipment is expensive.

LOGMARS LEAD SITE DATA SHEET

1. MAJCOM/BASE: HQ, AMC

2. POCs: Mr. Toner, AMC, AUTOVON 284-8800; Mr. Ricky Morton, DESCOM, AUTOVON 238-7926; Mr. Suazo, Sacramento Army Depot (SAAD), AUTOVON 839-2153; Mr. Ruth, Sharpe Army Depot (SHAD), AUTOVON 462-2143.

3. APPLICATION: Wholesale Receiving.

4. LOCATION: SHAD & SAAD, CA.

5. LEAD SITE MILESTONES:

    a. Identify functional requirements: Completed.

    b. Identify hardware requirements: Completed.

    c. Project funds available: Completed.

    d. Equipment contract awarded: Completed.

    e. Equipment received: Completed.

    f. Test system: Completed.

    g. System operational: Jun 85.

6. SYSTEM DESCRIPTION:

    a. Processing wholesale receipts to record.

       (1) After materiel is received from procurement sources, it is assigned a receipt control number and a cursory review is performed in a designated staging area. For parcel receipts which can be conveyed to the CRT site, the materiel will be released to the quality assurance (QA) decision point station where a QA inspector will be equipped with a bar code reader connected to the adjacent CRT site. If the materiel displays a barcoded national stock number (NSN), the inspector will be able to scan the NSN to perform the QA data inquiry. After materiel processing responsibility has been determined at the decision point station, parcel receipts will be identified and classified while on the receiving line (alternative 1). Upon completion of identification and classification, the parcel receipts will be conveyed to the CRT site for prepositioned materiel receipt document (PMRD) data. When materiel displays a barcoded NSN, a laser bar code reader connected to the CRT unit will be used to scan the NSN and procurement instrument identification number (PIIN). This will in turn initiate an inquiry into the PMRD file (0701 sector segment of SAM001 file) to retrieve the PMRD(s) which correspond from the file, thus, reducing the requirement for manual key-in of data by the CRT Operator to nine data elements. If the materiel does not display bar code data or a PMRD is not available, the UAF01 task will have to be manually keyed in by the CRT operator.

(2) For bulk receipts which cannot be conveyed to a CRT site, materiel
[...] barcoded NSN and PIIN will be identified during the cursory review. A
[...] bar code suspense control number (SCN) will be attached to the
[...]teriel and duplicate barcoded SCN will be attached to the receipt document.
[...] completion of the cursory review, performed in the same manner as
[...]native 1, the barcoded materiel will be routed to the appropriate
[...]ication/classification station. The QA inspector or supply classifier,
[...]ped with a PBCR, will scan the SCN, NSN, and PIIN, with this data being
[...] within the reader terminal. After the materiel has been identified and
[...]ified, but prior to release of documentation to the CRT site, the
[...]ector/classifier will load the bar code reader into an upload/download
[...] to pass the information scanned to a suspense file. Once the information
[...]ed, the corresponding receipt document can be released to the CRT site.
[...] receipt document with a barcoded SCN is delivered to the CRT site, the
[...]ator, equipped with a laser bar code reader connected to the CRT unit,
[...] the SCN which initiates an inquiry into the suspense file to retrieve
[...] suspense record that corresponds with the SCN. Upon retrieval of the
[...]nse record reflecting the NSN and PIIN for a particular receipt, a program
[...] is initiated to access the PMRD file to retrieve the PMRD(s) which
[...]sponds with that NSN and PIIN. If a PMRD is available, the data will be
[...]eved and formatted into a UAFO1 task, reducing elements. If the receipt
[...]ment does not display a barcoded SCN or a PMRD is not available, the UAFO1
[...] will have to be manually keyed in by the CRT operator. After receipt data
[...] been retrieved and/or keyed in, the UAFO1 task is entered into the host
[...]puter. Acceptance of the UAFO1 task by the host computer will generate
[...]put of a USAMC Form 1381-1 to facilitate processing the receipt to location.
[...]MC Form 1381-1 will be attached to materiel in the same manner as
[...]native 1.

[...] Processing wholesale receipts to location. Materiel will be conveyed to
[...] storage area. Upon arrival at the storage area, the materiel receipt will
[...] taken by the warehouseman to the assigned location reflected on the USAMC
[...] 1381-1. Once at the assigned location, the warehouseman, equipped with
[...], will scan the cross-reference number and assigned location bar code on the
[...] Form 1381-1. If the assigned location is a bin, the warehouseman will
[...] be required to scan a permanent barcoded location label attached to the bin
[...] verification that he is at the correct location. If the assigned location
[...] bulk, the warehouseman will have the option to key an alternate location into
[...] PBCR to record the location in which the materiel is actually stowed. After
[...] warehouseman completes stowing all the receipts, the bar code reader is
[...] to a central upload/download device which will pass the data to the host
[...]puter on a periodic basis. The data from the warehouse bar code reader will
[...] used to close out the receipt location record.

c. <u>QA data collection</u>. QA inspectors, equipped with PBCRs, will build the receipt inspection records via key and/or scan entry. The PBCRs will be programmed to edit data entry to assure proper format and character selection. At the end of the work shift, the QA inspector will take their PBCRs to an adjacent upload/download device which will pass the receipt record data to the host computer.

7. BASIC HARDWARE: Cathode ray tubes (12); PBCRs with lasers (156); FBCRs with Lasers (13); bar code printers/style A (10); dot matrix bar code printers (11); acoustic couplers (31); modems (7); cradles (40); and minicomputers (2).

8. BASIC SOFTWARE:

a. Four application programs are to be developed on the minicomputer for the PBCR. Programs will include an initialization module which will scan and match records previously downloaded to the scanner memory, manipulate data, and create an output file in one or more different formats to be uploaded to the host computer via RS-232C interface.

b. Extract program to transfer PMRD file to minicomputer.

c. Extract program to download file to print loose issue label and bin storage request label.

d. Printer format to bar code loose issue label and bin storage request label.

9. FUNDING STATUS: SHAD - $465,000; SAAD - $367,000 (funded)

10. EQUIPMENT ACQUISITION STATUS: USAISSAA acquisition.

11. EXTENSION OF APPLICATION: To be proliferated at 11 sites in 1985-1986.

12. COST BENEFIT ANALYSIS: To be provided 6 months after application becomes operational.

13. POSITIVE ASPECTS OF APPLYING LOGMARS TECHNOLOGY:

a. Estimated 6 percent increase in productivity.

b. Increased accuracy in stock accountability.

c. Reduction of materiel release order (MRO) denials and lost stock.

14. NEGATIVE ASPECTS OF APPLYING LOGMARS TECHNOLOGY: People's attitude of "that's not the way we used to do it" -- reeducation.

1. MAJCOM/BASE: HQ, AMC

2. POCs: Mr. Toner, AMC, AUTOVON 284-8800; Mr. Ricky Morton, DESCOM, AUTOVON 238-7926; Mr. Tidwell, Anniston Army Depot (ANAD), AUTOVON 694-6261; Mr. Kyler, Red River Army Depot (RRAD), AUTOVON 829-2900.

3. APPLICATION: Wholesale Shipping.

4. LOCATION: RRAD, TX, and ANAD, AL

5. LEAD SITE MILESTONES:

    a. Identify functional requirements: Completed.

    b. Identify hardware requirements: Completed.

    c. Project funds available: Completed.

    d. Equipment contract awarded: Completed.

    e. Equipment received: Completed.

    f. Test system: Apr-Jun 85.

    g. System Operational: Jun 85.

6. SYSTEM DESCRIPTION: The LOGMARS wholesale shipping application consists of automating data entry for stock selection, preservation and packaging, consolidating into shipment pack, and loading of the carrier. Bar coding will be used to automate data entry by the use of portable and fixed bar code readers. MROs will be tracked automatically through the entire shipping process via scanning the barcoded shipment planning worksheet/serial line number on the current DD Form 1348-1A (DOD Single Line Item Release/Receipt Document (With Address Label)) at RRAD and in the proposed receipt control document/pick ticket at ANAD. The receipt data form generated at ANAD will be bar coded with the document number, NSN, and shipment planning worksheet (SPW) number. The DD Form 1348-1A generated at RRAD will be bar coded with the SPW number.

7. BASIC HARDWARE: PBCRs with laser scanners (133); FBCRs with laser scanners (28); printers (12); cradles (33); minicomputers (2); and cathode ray tubes (CRT) (14).

8. BASIC SOFTWARE:

    a. Scanner software will need five application programs developed on a Z80 based microprocessor. Each program will include an initialization module which will scan and match records previously downloaded to the bar code reader memory, manipulate data, and create output files in one or more different formats to be uploaded to the host computer via RS-232C interface.

b. Minisoftware will need an estimated 25 application programs developed. Required software will provide the interface capability between the Standard Depot System, mini, and portable bar code readers.

c. Extract program to pass flimsy file to printer.

d. Printer format and conversion to bar code.

9. FUNDING STATUS: READ - $468,000; ANAD -$242,000. (funded)

10. EQUIPMENT ACQUISITION STATUS: Local procurement for high speed printers and centralized procurement for all other equipment.

11. EXTENSION OF APPLICATION: To be determined.

12. COST BENEFIT ANALYSIS: To be provided 6 months after application becomes operational.

13. POSITIVE ASPECTS OF APPLYING LOGMARS TECHNOLOGY:

a. Estimated 6 percent increase in productivity.

b. Increased accuracy in stock selection and shipment.

c. Reduction of MRO denials.

d. Increased response time to cancellation requests.

e. Automated tracking of MROs.

f. Increased visibility of material being processed for shipment.

g. Better management control as a result of automated workload for employees and management reports.

14. NEGATIVE ASPECTS OF APPLYING LOGMARS TECHNOLOGY:

a. Retraining of warehouse personnel in use of equipment and procedures.

b. ANAD personnel will have to become knowledgeable about new shipping documents.

LOGMARS LEAD SITE DATA SHEET

1. MAJCOM/BASE: HQ AMC

2. POC: MR. ROBERT SMITH, DESCOM, autovon 238-7935.

3. APPLICATION: Total Package/Unit Materiel Fielding.

4. LOCATION: NCAD and Mainz, Germany.

5. LEAD SITE MILESTONES: To be developed.

6. SYSTEM DESCRIPTION: When materiel . received, a bar code label will be applied to the materiel which is then put into storage. When a call forward message is received as the package is assembled, each item is scanned to create a packaging list and a confirmation document. When materiel is received by the consignee, they will scan the bar code labels to accomplish the receipt process.

7. BASIC HARDWARE: TBD.

8. BASIC SOFTWARE: To be developed.

9. FUNDING STATUS: To be developed.

10. EQUIPMENT ACQUISITION STATUS: To be developed.

11. EXTENSION OF APPLICATION: To be proliferated to all Package Processing Points and staging areas.

12. COST BENEFIT ANALYSIS: To be determined.

13. POSITIVE ASPECTS OF APPLYING LOGMARS TECHNOLOGY: TBD.

14. NEGATIVE ASPECTS OF APPLYING LOGMARS TECHNOLOGY: TBD.

LOGMARS LEAD SITE DATA SHEET

1. MAJCOM/BASE: USATSA

2. POC: Mr. White, USATSA, AUTOVON 687-4248.

3. APPLICATION: Property Book Accountability of Commissary Equipment.

4. LOCATION: Southeast Commissary Region.

5. LEAD SITE MILESTONES:

    a. Identify Function Requirements: Completed.

    b. Identify Hardware Requirements: Completed.

    c. Project Funds Available: Completed.

    d. Equipment Contract Awarded: Completed.

    e. Equipment Received: Completed.

    f. Test System: Nov 85.

    g. System Operational: Dec 85.

6. STAMMIS: Commissary Property Book.   This application is a duplication of the Army Medical Department Property Accounting System (AMEDDPAS) for which the Office of the Surgeon General (OTSG) is the functional proponent and US Army Health Services Command (USAHSC) is the proponent agency.   USAHSC has lead site responsibility for AMEDDPAS.

7. SYSTEM DESCRIPTION: AMEDDPAS to be used for commissary equipment, property accountability, automated inventory, life cycle management forecasting, and maintenance costs data.

8. BASIC HARDWARE: Portable bar code readers (5); converter/receiver (1); couplers (5); and modems (1).

9. BASIC SOFTWARE: Scanner software equipment designed to interface with AMEDDPAS.

10. FUNDING STATUS: Estimated - $24,000 (funded).

11. EQUIPMENT ACQUISITION STATUS: USAISSAA central contract.

12. EXTENSION OF APPLICATION: FY 84-85 -all commissary regions and 141 commissaries worldwide.

13. COST BENEFIT ANALYSIS: TBD.

14. POSITIVE ASPECTS OF APPLYING LOGMARS TECHNOLOGY: AMEDDPAS will allow the Army Commissary System to maintain total visibility of equipment inventory worldwide and enhance equipment accountability, maintenance, and life cycle costs.

15. NEGATIVE ASPECTS OF APPLYING LOGMARS TECHNOLOGY: NA.

LOGMARS LEAD SITE DATA SHEET

1. MAJCOM/BASE: USAHSC.

2. POC: MAJ Prather, USAHSC (HSLO-PR), AUTOVON 471-4308/7873.

3. APPLICATION: Inventory of Property Book Assets.

4. LOCATION: Worldwide (Army Hospitals) Prototype Fort Stewart, GA.

5. LEAD SITE MILESTONES:

    a. Prototype Development: Completed.

    b. Identify Function Requirements: Completed.

    c. Identify Hardware Requirements: Completed.

    d. Project Funds Available: Completed.

    e. Equipment Contract Awarded: Completed.

    f. Equipment Received: Completed.

    g. Prototype Test: Completed.

    h. Prototype Operational: Completed.

6. STAMMIS: Interfaced with the STAMMIS Army Medical Department Property Accountability system (AMEDDPAS).

7. SYSTEM DESCRIPTION: For this LOGMARS application, property assets will be inventoried using a PBCR to record bar code data printed on a label affixed to each accountable item of equipment. The bar code on the label is a unique identification number locally assigned to the piece of equipment in the AMEDDPAS data base. The area (hand receipt) where the inventory is being conducted, date, and identification of the person conducting the inventory is manually entered into a PBCR, then every label found in the selected area is scanned. The collected data are passed to a receiving/collection device over a communications line where they are stored on a computer tape for batch input processing during the next AMEDDPAS operating cycle. A "results of inventory" report is provided to reconcile discrepancies between that physically recorded and that found on the data base.

8. BASIC SOFTWARE: Scanner software was developed specifically for this application and is designed to interface with AMEDDPAS.

9. FUNDING STATUS: Funds are to be obtained from the DOD productivity investment fund allocation. Full funding for Army medical department (AMEDD) activities using the AMEDDPAS is projected.

LOGMARS LEAD SITE DATA SHEET

1. MAJCOM/BASE: TRADOC (USALOGC).

2. POCs:

   a. MAJ(P) White, AUTOVON 687-2017/2018.

   b. STAMMIS Functional Design: Mr. Flaim, USALOGC, AUTOVON 687-2017.

   c. Material Developer: LTC Case, USAISC (PM TACMIS), ASM-TP-C, AUTOVON 354-6751.

   d. Logistics Support: Mr. Spangler, CECOM, AUTOVON 992-5271.

3. APPLICATION: Receipt Processing.

4. LOCATION: Multicommand.

5. STAMMIS INTERFACE:

   a. Standard Army Intermediate Level Supply subsystem (SAILS).

   b. Direct support Unit Standard Supply system (DS4).

   c. Standard Army Retail Supply System Level 1 (SARSS-I).

   d. Standard Army Maintenance system Level 1 (SAMS-I).

   e. Standard Property Book System (SPBS).

6. DESCRIPTION: The use of LOGMARS technology in the receiving process is predicated on bar coded documentation (customer receipt form) being produced at the supply depot and the supply support activity on all materiel release orders. The document (receipt form) will contain the required receipt data elements (bar coded and in-the-clear data) on each unit pack destined for the using unit. Receipt of inbound materiel will be accomplished by a functional operator using a bar code reader to record the bar coded data directly off the materiel and entering additional required data in accordance with stored programmed prompts which appear on the reader's visual display to transmit interoperable STAMMIS formatted data to the STAMMIS host computer. The receipt data will be stored in the bar code reader for subsequent transmittal to a host computer for data entry and processing in the STAMMIS being interfaced.

7. ECHELON OF EMPLOYMENT: Theater, corps, division, separate brigade, non-divisional units, installations, TOE/TDA maintenance shop supply, and medical activities.

8. FUNDING STATUS: FY 86 - FY 91 PDIP.

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9. APPLICATION (HARDWARE/SOFTWARE) IOC:

   a. SAILS - 4th Qtr, FY 86.

   b. DS4 - 4th Qtr, FY 86.

   c. SARSS-I - 4th Qtr, FY 86.

   d. SPBS - 4th Qtr, FY 86.

   e. SAMS-1 - TBD.

LOGMARS LEAD DATA SHEET

1. MAJCOM/BASE: TRADOC (USALOGC).

2. POCs:

   a. MAJ (P) White, USALOGC, AUTOVON 687-2017/2018.

   b. STAMMIS Functional Design: Mr. Flaim, USALOGC, AUTOVON 687-1767.

   c. Material Developer: LTC Case, USAISC (PM TACMIS), ASM-PT-C, AUTOVON 354-6751.

   d. Logistics Support: Mr. Spangler, CECOM, AUTOVON 992-5271.

3. APPLICATION: Inventory and Location Survey.

4. LOCATION: Multicommand.

5. STAMMIS INTERFACE:

   a. Standard Army Intermediate Level Supply Subsystem (SAILS).

   b. Direct Support Unit Standard Supply System (DS4).

   c. Standard Army Retail Supply System Level 1 (SARSS-I) - Interim.

   d. Standard Army Retail Supply System Levels 1 - III.

   e. Standard Army Maintenance System Level 1 (SAMS-1).

6. APPLICATION DESCRIPTION: A bar code printer will be used to locally produce bar coded storage labels/documents to be affixed to storage locations (bins, racks, etc.). All storage locations will be labeled with appropriate bar coded data. Portable bar code readers will be used, in lieu of cards or listings, to perform physical inventory and location survey functions. Interoperable STAMMIS data required to accomplish either function will be downloaded from the host computer/STAMMIS into the portable reader. The functional operator will be prompted by programmed commands on the visual screen of the device to perform the appropriate inventory or location survey procedures. Upon completion of the function, the data recorded in the portable reader will be transmitted to the host computer for STAMMIS processing. STAMMIS identified in Part I will employ LOGMARS hardware for the accomplishment of inventory and location survey operations.

7. ECHELON OF EMPLOYMENT: Theater, corps, division, separate brigade, nondivisional units, installations, TOE/TDA maintenance shop supply, and medical activities.

8. FUNDING STATUS:

    a. Tactical requirements: FY 86 - FY 91 PDIP.

    b. Installation requirements, FY 84 (Productivity Investment Funds) -
Funded, FY 85 - FY 87 (PIF) - Program.

9. APPLICATION: (HARDWARE/SOFTWARE) IOC:

    a. SAILS - 4th Qtr, FY 86.

    b. DS4 - 4th Qtr, FY 86.

    c. SARSS-I - 4th Qtr, FY 86.

    d. SAMS-1 - 3d Qtr, TBD.

LOGMARS LEAD SITE DATA SHEET

1. MAJCOM/BASE: TRADOC (USALOGC).

2. POCs:

    a. MAJ (P) White, USALOGC, AUTOVON 687-2017.

    b. STAMMIS Functional Design: Mr. Flaim, USALOGC, AUTOVON 687-1767.

    c. Material Developer: LTC Case, USAISC (PM TACMIS), ASM-TP-C, AUTOVON 354-6751.

    d. Logistics Support: Mr. Spangler, CECOM, AUTOVON 992-5271.

3. APPLICATION: Requisition Processing.

4. LOCATION: Multicommand.

5. STAMMIS INTERFACE: Unit Level Logistics System (ULLS).

6. DESCRIPTION: STAMMIS supporting prescribed load lists (PLL) will employ a bar code printer to provide bar coded PLL listings. When an item is required, the PLL clerk will use a programmed portable bar code reader to scan the national stock number (NSN) and enter the quantity required. A customer document number will be assigned by the bar code reader and the requisition transaction will be formatted for input/transmittal to the supporting register. The portable bar code reader will also be used to complete the receipt of the item by scanning the bar coded receipt documentation at the lowest level.

7. ECHELON OF EMPLOYMENT: TBD.

8. FUNDING STATUS: FY 86 - FY 91 PDIP.

9. APPLICATION (HARDWARE/SOFTWARE) IOC: TBD.

LOGMARS LEAD SITE DATA SHEET

1. MAJCOM/BASE: TRADOC (USALOGC).

2. POCs:

   a. Proponent Agency Executive Agent: MAJ(P) White, USALOGC, AUTOVON 687-2017.

   b. STAMMIS Functional Design: Mr. Flaim, USALOGC, AUTOVON 687-1767.

   c. Materiel Developer: LTC Case, USAISC (PM TACMIS),ASM-PT-C, AUTOVON 354-6751.

   d. Logistics Support: Mr. Spangler, CECOM, AUTOVON 992-5271.

3. APPLICATION: Ammunition Management.

4. LOCATION: Multicommand.

5. STAMMIS INTERFACE: Standard Army Ammunition System Level 4 (SAAS-4).

6. DESCRIPTION: The objective for establishing a LOGMARS interface with SAAS-4 is to capture and automate data at its source with a low error rate and to provide this data to the automated system in such a manner that the use of personnel (MOS 55R) within the operation is more effective and efficient. The LOGMARS hardware consists of a number of portable bar code readers, a device to upload and download data, and instructions between the Tactical Army Combat Service Support Computer System (TACCS) and the portable bar code reader, and a bar code label printer. The portable bar code readers are used to capture data in the performance of receiving, location survey, and inventory functions. The bar code label printer is required to produce local bar coded data applicable to storage, issue, turn-in, and shipment functions. LOGMARS applications will interface with the TACCS hardware at the ammunition storage point (ASP) and corps storage area (CSA).

7. ECHELON OF EMPLOYMENT: Conventional Ammunition Company (ASP/CSA), installations.

8. FUNDING STATUS: FY 86 - FY 91 PDIP.

9. APPLICATION (HARDWARE/SOFTWARE) IOC: 3d Qtr, FY 87.

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1. MAJCOM/BASE: TRADOC (USALOGC).

2. POCs:

    a. Proponent Agency Executive Agent: MAJ(P) White, USALOGC, AUTOVON 687-2017.

    b. STAMMIS Functional Design: Mr. Flaim, USALOGC, AUTOVON 687-2017/2018.

    c. Material Developer: LTC Case, USAISC (PM TACMIS) , ASM-PT-C, AUTOVON 354-6751/1881.

    d. Logistics Support: Mr. Spangler, CECOM, AUTOVON 992-5271.

3. APPLICATION: Maintenance Work Order Registration.

4. LOCATION: Multicommand.

5. STAMMIS INTERFACE: Standard Army Maintenance system Level 1 (SAMS-1).

6. DESCRIPTION: Portable and/or fixed bar code readers will be used by the functional operator to automate the work order registration process. Equipment related data, such as the national stock number (NSN), serial number, etc., would have to be encoded on the equipment data plates by AMC. Data related to the equipment owner (i.e., unit   identification code), and data derived as a function of both the equipment and the unit (i.e., equipment readiness code (ERC), administrative number, etc.) would be encoded using a bar code printer on a locally produced mylar label and applied to the equipment. The data plate and label could be scanned, eliminating the requirement to enter the data via the keyboard during work order registration.

7. ECHELON OF EMPLOYMENT: TOE and TDA maintenance activities.

8. FUNDING STATUS: FY 86 - FY 91 PDIP.

9. APPLICATION (HARDWARE/SOFTWARE) IOC: TBD.

LOGMARS LEAD SITE DATA SHEET

1. MAJCOM/BASE: TRADOC (USALOGC).

2. POCs:

    a. Proponent Agency Executive Agent: MAJ(P) White, USALOGC, AUTOVON 687-2017.

    b. STAMMIS Functional Design: Mr. Flaim, USALOGC, AUTOVON 687-2017/2018.

    c. Material Developer: LTC Case, USAISC (PM TACMIS), ASM-PT-C, AUTOVON 354-6751/1881.

    d. Logistics Support: Mr. Spangler, CECOM, AUTOVON 992-5271.

3. APPLICATION: Property Accountability Inventory.

4. LOCATION: Multicommand.

5. STAMMIS INTERFACE: Standard Property Book System (SPBS).

6. DESCRIPTION: A bar code printer will be used to produce a bar coded label/tag with appropriate identification number (serial number) which will be affixed to each property book item. Portable bar code readers will be used by functional operators to conduct regulatory inventories in lieu of the current method of producing hardcopies of hand receipt/inventory data. Personnel will conduct inventories by scanning the bar coded labels on each item and entering any additional data required. The data contained in the portable reader will be transmitted for interface with the host computer/STAMMIS. The inventory data would be input to SPBS to compare the scanned inventory data with the data stored on the serial/registration number file. SPBS would generate a listing for each inventoried hand receipt reflecting items which match. Items which did not match the hand receipt (overage) and items which are listed on the hand receipt but not inventoried (shortage) would appear on a separate listing.

7. ECHELON OF EMPLOYMENT: Divisions, separate brigades, nondivisional units.

8. FUNDING STATUS: FY 86 - FY 91 PDIP.

9. APPLICATION (HARDWARE/SOFTWARE) IOC: 4th Qtr, FY 86.

LOGMARS LEAD SITE DATA SHEET

1. MAJCOM/BASE: US Army Information Systems Command (USAISC).

2. POC: Mr Handley, AS-LOG-LS-AO.

3. APPLICATION: Automated Property Book System (APBS).

4. LOCATION: Fort Huachuca, AZ, and Fort Ritchie, MD.

5. LEAD SITE MILESTONES:

   a. Identify Functional Requirements. Completed.

   b. Identify Hardware Requirements: Completed.

   c. Project Funds Available: Completed.

   d. Equipment Contract Awarded: Number expected 1 Mar 85.

   e. Equipment Received. 60 days after contract award (1 May 85).

   f. Test System: 1 Sep 85 - Fort Huachuca, AZ.

   g. System Operational: System Acceptance Test on or about 1 Oct 85.

6. STAMMIS: Unique. The APBS is a real-time, on-line system. The basic system was obtained form Fort Sill, OK. Many modifications have been incorporated, thus no longer paralleling the original configuration. Presently the APBS is supporting eight property books having up to 2,000 hand receipt holders. APBS has been adapted with built-in flexibilities. Hand receipt listings can be produced via batch request (nightly cycle) or by remote printer. Management/exception reports are produced during a nightly cycle if required.

7. DESCRIPTION: The system's printer will produce a bar coded label/tag with appropriate identification number for attachment to each piece of property requiring property book accountability. Portable bar code scanners will be used to conduct regulatory inventories instead of the current method of producing hard copies by hand receipt/inventory data. Inventories will be conducted by accountable property personnel in their respective area. Upon completion of the scanning process, the data contained in the portable scanner will be transmitted through an acoustic coupler to the converter/receiver for subsequent interface with mainframe computer system.

8. BASIC HARDWARE:

   a. Test Equipment. PBCR TELXON 701: (3); serial impact printer - Type A (2); Printer converter: (2); RACAL-VADAC modem (2); data collection device: (1).

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b. Fort Huachuca: PBCR TELXON 701: (27); serial impact printer - Type A (1); serial impact printer - Type B (2);terminals MDL 108: (2); printer converter: (1); RACAL-VADAC modem: (1); acoustic coupler: (5).

c. Fort Richie: PBCR TELXON 701: (8); serial impact BCP - Type A: (1); serial impact BCP - Type B: (2); terminals MDL 108: (2); printer converter: (1); RACAL-VADAC modem: (1); acoustic coupler: (5); data collection device: (1).

9. BASIC SOFTWARE: To be developed by IBIS based on functional description provided by USAICS POC.

10. FUNDING STATUS: The application has been funded.

11. EQUIPMENT ACQUISITION STATUS:

  a. Fquipment for lead site development expected on or about 1 May 1985.

  b. SAT on or about 1 September 1985.

  c. Fort Huachuca, AZ, 1 October 1985.

  d. Fort Ritchie, MD, 15 January 1986.

12. EXTENSION OF APPLICATION:

  a. Fort Huachuca, AZ 1 October 1985.

  b. Fort Ritchie, MD, 15 January 1986.

13. COST BENEFIT ANALYSIS: TBD.

14. POSITIVE ASPECTS OF APPLYING LOGMARS TECHNOLOGY: Provide more accurate property accountability and speed up the inventory process.

15. NEGATIVE ASPECTS OF APPLYING LOGMARS TECHNOLOGY: None foreseen.

LOGMARS LEAD SITE DATA SHEET

1. MAJCOM/BASE: US Army Western Command (WESTCOM).

2. POC: Mr. Lampros/Mr. Inabata, AUTOVON 438-9316/9317.

3. APPLICATION: Transportation Management.

4. LOCATION: 25th Infantry Division, Schofield Barracks, HI.

5. LEAD SITE MILESTONES:

    a. Identify Functional Requirements: Completed.

    b. Identify Hardware Requirements: Completed.

    c. Project Funds Available: Completed.

    d. Equipment Contract Awarded: Completed.

    e. Equipment Received: Completed.

    f. Test System: Completed.

    g. System Operational: Completed.

6. STAMMIS: Unique.

7. DESCRIPTION: This application involves bar coding major items of equipment in conjunction with joint exercise deployments off-island such as the annual team SPIRIT exercise deployments to the Republic of Korea. Two labels will be attached to each piece of equipment such as tactical vehicles and trailers. The bar code label will consist of a unique six-digit alphanumeric code which in turn will be matched to an identical code on a master file during the automated process. The master file will consist of data elements such as bumper number, serial number, unit identification code (UIC), nomenclature, force requirement number, length, width, and height. Data captured via portable bar code readers will be downloaded via commercial telephone to magnetic tape on a Telxon Model 970 converter/receiver for entry into an automated system. It will produce cargo manifest reports required by the Joint Deployment Agency (JDA) and other similar type reports in a more efficient, accurate and timely manner. Reports will summarize by force requirement, number total such as short tons, measurement tons, square feet, and cubic feet shipped on a vessel.

8. BASIC HARDWARE: Fixed bar code readers (5); portable bar code readers (5); acoustic couplers (5); and converter/receiver with modem (1).

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9. BASIC SOFTWARE: Scanner software, using the unique six-digit
alphanumeric code, was designed specifically for this system. Buffer
programs, written by the contractor (TELXON), were used to format
raw data from the TELXON 970 converter to input format acceptable to
our host IBM 4341.

10. FUNDING STATUS: Fully funded. Acquisition cost $25,000 (OPA).

11. EQUIPMENT ACQUISITION STATUS: Local procurement.

12. EXTENSION OF APPLICATION: WESTCOM only.

13. COST BENEFIT ANALYSIS: Test objectives were to determine the
effectiveness of bar code technology in an actual deployment operation
and to gain experience and knowledge in the utilization of LOGMARS
equipment to identify additional LOGMARS applications. Cost benefit
analysis was not made at this time.

14. POSITIVE ASPECTS OF NEW SYSTEM: Use of bar codes have proven to
be effective in a deployment situation. Reports were prepared
accurately and in sufficient time to meet Joint Deployment Agency (JDA)
requirements.

15. NEGATIVE ASPECTS OF NEW SYSTEM:

     a. The system did not allow for the large number of equipment
substitutions without having to update the master file each time.

     b. Although the reports were produced in sufficient time to meet
JDA requirements, we did not have the information on hand to make
on-the-spot decisions because of our dependence on the batch processed
IBM 4341. Scheduling of runs and scheduling of time to phone in
scanned data became critical. (If input was not available prior to the
scheduled run, we had to wait until the next day to process). To
resolve this problem, recommend that a microcomputer such as the IBM PC
be placed close to the port area and be used as a host for immediate
update of files and production of reports.

     c. Bar code terminals received some rain during the loading of the
first ship and about 100 scans were lost from memory. Terminal
utilized in an outside environment must be protected from moisture.
(Temporary fix was to wrap terminal in saran wrap).

     d. First read rate was erratic. Bright sunshine adversely
affected read rates. Location of label in relation to vibration of the
vehicle while idling also has some affect in first read rate.

     e. On two occasions, software on our data conversion device
indicated that there were missing data during transmission even though
a good transmit was recorded on the terminal connected to the converter
receiver and the telephone tonal feedback indicated a good
transmission. Because of this, we were required to have someone
monitor the transmission at the receiver site and keep the data on the
scanners as backup until we were able to confirm that all data was
transceived.

f.   Interfacing various host hardware and software with bar code readers and their software requires a great deal of coordination with vendors, communicators, ADP-type personnel, and functional users. What appears to be a simple hookup can create numerous problems if each element involved with the interface problems is to allow the Government to have a license to program software in the handheld scanners.

16.   Although the initial transportation test is completed, we are still treating the system as an ongoing project and we are looking at ways towards designing a better system, using the lessons learned from the initial test. We will report this new system separately when additional details are finalized.

LOGMARS LEAD SITE DATA SHEET

1. MAJCOM/BASE: US Army Intelligence Command (INSCOM).

2. POC: Mr. Schreifels, INSCOM, AUTOVON 222-5563.

3. APPLICATION: Property Inventory (Trilogy Fare).

4. LOCATION: Field Stations Augsburg and Berlin, Germany; Sinop, Turkey; Pyong Taek, Korea; Kunia, HI; and other selected locations.

5. LEAD SITE MILESTONES:

    a. Write Functional Description: Completed.

    b. Design Program and System Specifications: Completed.

    c. Supply Module Delivery: Completed.

6. STAMMIS: Unique.

7. DESCRIPTION: User level supply, maintenance, and strategic system configuration management. Supply module includes property book, hand receipts, transaction registers, and repair parts system. Maintenance module includes preventive maintenance (PM) scheduling; corrective maintenance; production control; quality control; labor; funds; and reliability; availability, and maintainability-durability (RAM-D) data as used in one-stop organizational through general support (GS) level maintenance shop. Configuration management module includes assignment, drawings, cable and wire lists as well as station configuration work in progress management data. Total system uses bar code labels for identification in all modules.

8. BASIC HARDWARE: Data General "eclipse" series.

9. BASIC SOFTWARE: Data General AOS compatible COBOL.

10. FUNDING STATUS: Complete.

11. EQUIPMENT ACQUISITION STATUS: Existing equipment being upgraded (additional peripherals, memory expansion); obsolete and worn equipment scheduled for replacement. Bar code equipment is on hand.

12. EXTENSION OF APPLICATION: INSCOM only.

13. COST BENEFIT ANALYSIS: TBD.

14. POSITIVE ASPECTS OF APPLYING LOGMARS TECHNOLOGY: Provides first comprehensive review of logistics operations and status to station commanders. Also provides comprehensive asset, cost of operation, and status information to INSCOM. Eliminates redundant work at the user level and provides immediate feedback on each action as well as the means to manage logistics operations.

15. NEGATIVE ASPECTS OF APPLYING LOGMARS TECHNOLOGY: Development/fielding is slow due to its comprehensive nature and the need to identify and provide for the interface between all logistics functions.

LOGMARS DATA SHEET

1. MAJCOM/BASE: MTMC

2. POC:

   a. CPT J. Dube, MT-ITM, AUTOVON 289-1627.

   b. Mr. A. Bates, MT-ITM, AUTOVON 289-1627.

3. APPLICATION: Automated Cargo Documentation for Unit Moves.

4. LOCATION:

   a. CONUS - 5 ports.

   b. OCONUS - 9 ports and 10 cargo documentation dets.

5. MILESTONES:

   a. Identify Function Requirements: Completed.

   b. Identify Hardware Requirements: Completed.

   c. Project Funds Available: CONUS: FUNDED; OCONUS: PDIP
submitted for OMA and OPA funds FY 87 - FY 91.

   d. Equipment Contract Awarded: DOD DAHC26-84-D-0007.

   e. Equipment Received: Approximately Aug 85.

   f. Test System: Completed.

   g. System Operational: Dec 85.

6. STAMMIS: Unique.

7. SYSTEM DESCRIPTION: Through the use of bar code labels and
portable reader/recorders, the use of hardcopy documentation will be
eliminated and near real time visibility of unit equipment will be
obtained from the time it enters the ocean terminal until it is loaded
on the vessel.

8. BASIC HARDWARE: Twelve portable bar code readers with wands, two
serial impact bar code printers and the necessary peripherals for each
port/location (quantities could increase depending upon experience).

9. BASIC SOFTWARE: Scanner software developed specifically for this
application to interface with TOLS.

10. FUNDING STATUS: LOGMARS equipment procurement, operation/maintenance, and development for use in CONUS funded through the Army Industrial Fund. PDIP submitted for OMA/OPA funds for the out of CONUS applications.

11. EQUIPMENT ACQUISITION STATUS:

    a. CONUS (5 ports) - FY 85.

    b. CONUS (wartime requirement) - FY 86.

    c. OCONUS (wartime requirement) - FY 87.

12. EXTENSION OF APPLICATION:

    a. CONUS - FY 86.

    b. OCONUS - FY 87.

13. COST BENEFIT ANALYSIS: Wartime requirement.

14. POSITIVE ASPECTS OF APPLYING LOGMARS TECHNOLOGY: The system will simplify the cargo checking operation while increasing the timeliness and the accuracy of data entry.

15. NEGATIVE ASPECTS OF APPLYING LOGMARS TECHNOLOGY: None yet noted and anticipated.

LOGMARS LEAD SITE DATA SHEET

1. MAJCOM/BASE: National Guard Bureau (NGB)

2. POC: Mr. Robert L. Seidlich, NGB-ARL-P, AUTOVON 225-4068; MAJ. Kain, AUTOVON 225-4068.

3. APPLICATION: Self Service Supply Center (SSSC).

4. LOCATION: USPFO for PA, Bldg. S11-68, Fort Indiantown Gap, PA.

5. LEAD SITE MILESTONES:

    a. Identify Functional Requirements: Completed.

    b. Identify Hardware Requirements: Completed.

    c. Project Funds Available: Completed.

    d. Equipment Contract Awarded: Completed.

    e. Equipment Received: Completed.

    f. Test System: Completed.

    g. System Operational: Jun 85.

6. STAMMIS: Command Unique.

7. DESCRIPTION: The bar code concept will be used to collect data by user for items procured from self-service supply stocks. Supply items will be scanned via bar code readers, transmitted to central processing units (CPU) for updating of current master files, and produce sales slip for the user at the supply center,. All appropriate data files will be updated and processed at the end of day via batch mode processing.

8. BASIC HARDWARE: Microcomputer with 512KB RAM, one floppy disk (300 kbt), 16-bit processor (8086 or equal), hardware/software Burroughs, B9155 Burroughs interface, asynchronous interface, 150 cps, and dot matrix printer (1); PBCR with hand held laser CLIN 0001AB (1); FBCR with hand held laser CLIN 0002AB (1); bar code printer - type B CLIN 0003AB (1); and asynchronous modem-2400 baud (1).

9. BASIC SOFTWARE: To be developed by NGB.

10. FUNDING STATUS: Financed - $16,415.

11. EQUIPMENT ACQUISITION STATUS: USAISSAA contract.

12. EXTENSION OF APPLICATION: Two sites in FY 84; Fifty-two (52) in 2nd Qtr, FY 86.

13. COST BENEFIT ANALYSIS: Project savings - $1,593,000 in FY 86 and
FY-87.

14. POSITIVE ASPECTS OF APPLYING LOGMARS TECHNOLOGY: TBD.

15. NEGATIVE ASPECTS OF APPLYING LOGMARS TECHNOLOGY: TBD.

LOGMARS LEAD SITE DATA SHEET

1. MAJCOM/BASE: NGB.

2. POC: Mr. Robert L. Seidlich or MAJ Kain, NGB-ARL-P, AUTOVON 225-4068.

3. APPLICATION: Retail Inventory/location Survey.

4. LOCATION: USPFO for PA, Bldg. S11-68, Fort Indiantown Gap, PA.

5. LEAD SITE MILESTONES:

    a. Identify Functional Requirements: Completed.

    b. Identify Hardware Requirements: Completed.

    c. Project Funds Available: Completed.

    d. Equipment Contract Awarded: Completed.

    e. Equipment Received: Completed.

    f. Test System: Completed.

    g. System Operational: Jun 85.

6. STAMMIS: Command unique.

7. DESCRIPTION: The bar code concept will be used to collect data by user to validate the accuracy of recorded stock locations. Data elements to be encoded on the bar coded bin tag are stock number, unit of issue, condition code, and location. The bar code concept will also be used to collect data by user in conducting annual and special inventories. Results will be reconciled with recorded balances on accountable records.

8. BASIC HARDWARE: Portable bar code reader with hand held laser CLIN 0001AB (2).

9. BASIC SOFTWARE: To be developed by NGB.

10. FUNDING STATUS: Funded - $2,970.

11. EQUIPMENT ACQUISITION STATUS: USAISSAA.

12. EXTENSION OF APPLICATION: Two sites in FY 84; fifty-two in 2nd Qtr, FY 86.

13. COST BENEFIT ANALYSIS: Projected Savings -$22,500 in FY 86 and FY 87.

14. POSITIVE ASPECTS OF APPLYING LOGMARS TECHNOLOGY: Jul-Aug 1985.

15. NEGATIVE ASPECTS OF APPLYING LOGMARS TECHNOLOGY: Jul-Aug 1985.

LOGMARS LEAD SITE DATA SHEET:

1. MAJCOM/BASE: NGB.

2. POC: Mr. Robert L. Seidlich or MAJ Klein, NGB-ARL-P, AUTOVON 225-4068.

3. APPLICATION: Retail Receiving.

4. LOCATION: USPFO for PA, Bldg. S11-68, Fort Indiantown Gap, PA.

5. LEAD SITE MILESTONES:

    a. Identify Functional Requirements: Completed.

    h. Identify Hardware Requirements: Completed.

    c. Project Funds Available: Completed.

    d. Equipment Contract Awarded: Completed.

    e. Equipment Received: Completed.

    d. Test System: Completed.

    e. System Operational: Jun 85.

6. STAMMIS: Command unique.

7. DESCRIPTION: The bar code concept will be used to record appropriate accounting data for all items (new receipts) received in the USPFO warehouse at time of inchecking. Data will be transmitted to the USPFO computer system via telephone lines or hardwired computer terminals located in the warehouse. System will assist in the accurate recording, accounting, and distribution of supplies within Army National Guard (ARNG).

8. BASIC HARDWARE: Microcomputer with 256KB RAM, one floppy disk (300kbt), 16-bit processor, hardware/software Burroughs, B9155 Burroughs interface, asynchronous interface, 150 cps, and dot matrix printer (1); PBCR with hand held laser CLIN 0001AB (1); bar code printer-type B CLIN 0003AB (1); and asynchronous modem -2400 baud (1).

9. BASIC SOFTWARE: To be developed by NGB.

10. FUNDING STATUS: Financed - $1?,625.

11. EQUIPMENT ACQUISITION STATUS: USAISSAA Contract.

12. EXTENSION OF APPLICATION: Two sites in FY 84; fifty-two in 2d Qtr, FY-86.

13. COST BENEFIT ANALYSIS: Projected Savings: $66,500 in FY 86 and
FY 87.

14. POSITIVE ASPECTS OF THE NEW LOGMARS SYSTEM: Jul - Aug 1985.

15. NEGATIVE ASPECTS OF THE NEW LOGMARS SYSTEM: Jul - Aug 1985.

LOGMARS LEAD SITE DATA SHEET

1. MAJCOM/BASE: Defense Logistics Agency (DLA).

2. POC: Wayne Andreotti, DDOU-TMS, AUTOVON 790-7336.

3. APPLICATION: DWASP/LOGMARS Receiving IOT.

4. LOCATION: DDOU, Ogden, Utah.

5. LEAD SITE MILESTONES: All milestones have been completed.

6. SYSTEM DESCRIPTION: The DWASP/LOGMARS receiving consists basically of the input and output of bar coded data. The system will allow the receiving input station to display prompts, edit data, transmit and recall data required to induct newly received material into the depot. The Receipt Information Data Request (RIDR) provides an input format whereby selected data is input to be matched against advance receipt data and item data (locator) information. The RIDR establishes an in-process receipt record and initiates receipt processing time for receipt effectiveness measurements. The entry of contractor marked bar coded NSN/NIIN and Contract/PIIN are input through scanning. If bar coded data are not available or a "no read" occurs data will be entered manually. The inspection verification notice is established to display the in-process receipt data on-hand and to provide an input format for additional data required in the confirmation process. It will also assist in completion of the automated acceptance report. Future plans provide for output of a bar coded Operational Control Number (OCN) at the receiving station, on a Material Movement Document to facilitate inspection, movement and tracking of material received to storage.

7. BASIC HARDWARE: Processing stations require a display terminal, bar code printer, hand held LASER scanner and 2-way communication devices to transceive data with the DWASP data base.

8. BASIC SOFTWARE: Developed by DSAC-D.

9. FUNDING STATUS: Completed.

10. EQUIPMENT ACQUISITION STATUS: Procured and installed.

11. EXTENSION OF APPLICATION: IOT completed Jun 84. System is operational at DDOU. Being implemented at DGSC in Jul 85 and other centers/depots will follow with final implementation date of Dec 85.

12. COST BENEFIT ANALYSIS: To be completed after complete system is operational.

13. POSITIVE ASPECTS OF APPLYING LOGMARS TECHNOLOGY:

    a.   Increased productivity.

    b.   More accurate stock accountability.

    c.   Reduction of MRO denials.

    d.   Decreased number of location surveys.

    e.   Provides data in a timely manner.

    f.   Increased management control.

14. NEGATIVE ASPECTS OF APPLYING LOGMARS TECHNOLOGY: Requires extensive "reeducation" of people to eliminate resistance to change.

LOGMARS LEAD SITE DATA SHEET

1. MAJCOM/BASE: Defense Logistics Agency.

2. POC: Mrs. Lillie M. Brown, DMECSO, AUTOVON 695-4787.
   Mr. Robert Goulet, HQ,DLA-WS, AUTOVON 284-6358.

3. APPLICATION: Bar Code Accountable Property System (BARCAPS).

4. LOCATION: Defense Depot Ogden, UT.
   Defense Construction Supply Center, OH.

5. LEAD SITE MILESTONES:

   a. Identify Functional Requirements: Completed.

   b. Identify Hardware Requirements. Completed.

   c. Project Funds Available: Completed.

   d. Equipment Contract Award. TBD

   e. Equipment Delivery. TBD

   f. Test System. TBD.

   g. System Operational. TBD.

6. SYSTEM DESCRIPTION: The Base Operating Supply System (BOSS) is an automated system. The Bar Code Inventory System Known as BARCAPS will enhance BOSS by providing an automated method to collect inventory data on accountable property through use of bar code labels, portable data terminals and bar code scanning devices. Each Label coded with a 6-position number. When performing an inventory, data are automatically collected by reading each label with the portable scanning device. The information is stored in terminal memory until it is downloaded to a PC and later uploaded to the host computer. BARCAPS provides for an Inventory Reconciliation Program that mechanically reconciles the inventory data records to the master file in the host computer. When the Reconciliation job is run, inventoried items are categorized as Reconciled, Overages and Shortages. Totals are furnished for each Hand Receipt Account that is inventoried.

This method of data collection and information processing provides for faster, more accurate inventories. It improves management/control for the life cycle of the item. It automates the data collection and reconcilliation process as well as reporting if inventory results in summary format.

7. BASIC HARDWARE: Transmission Converter 2743 (2 way communication with diskette or magnetic tape store and forward ability (1); ACM 202 (2); Portable bar code readers (32K, 32 character (2 lines) handheld unit) (2).

8. BASIC SOFTWARE: To be developed by the CDA.

One system for burning program load module chips consisting of the following equipment or equivalent will be procured. (Must be compatible with above systems). IBM PC-XT (presently owned).

"Full PC Handler" consisting of the following:

    a. Basic Compiler for IBM-PC, Simulator, Program Download, two-way Data File Converter.

    b. IBM-PC-XT card for interface to EPROM Burner.

    c. Special cables/adapters.

9. FUNDING STATUS: Funded - $125,000.

10. EQUIPMENT ACQUISITION STATUS: Programmed for FY 85.

11. EXTENSION OF APPLICATION:

    FY 86 - DLA Depots and Centers (8 Base Operating supply Systems).

    FY 87 - To be determined for Defense Property Disposal Service and Defense Contract Administration Services (DCASRs).

12. COST BENEFIT ANALYSIS: Estimated to save $100,000 annually at first 8 sites. Additional sites to be determined.

13. POSITIVE ASPECTS OF APPLYING LOGMARS TECHNOLOGY: It will provide a higher level of property accountability and a faster, more accurate accounting of property, practically eliminating use of paper and pencil. The bar code technology can be used for other applications once equipment is obtained.

14. NEGATIVE ASPECTS OF APPLYING LOGMARS TECHNOLOGY: Delays in procurement of new equipment to alleviate constraints on telecommunications availability and shortage of COMTEN memory..

LOGMARS LEAD SITE DATA SHEET

1. MAJCOM/BASE: Defense Logistics Agency.

2. POC: LT Rubin Patterson, SC, USN, DLA DMECSO, AUTOVON 695-4787.

3. APPLICATION: LOGMARS/Hazardous Material Information System (HMIS)

4. LOCATION: Prototype site to be determined by the LOGMARS Coordinating Group (LCG).

5. LEAD SITE MILESTONES: Pending review of feasibility study by the LCG and approval for prototyping.

6. SYSTEM DESCRIPTION: The DOD HMIS is currently used to provide a central DOD system for the collection maintenance and dissemination of hazardous information. The information contained in HMIS is prepared in either microfiche or magnetic tape format and currently contains information on approximately 20,000 line items. The major source document for the system is the Material Safety Data Sheet (MSDS) which is required as part of the procurement contract and is provided by the contractor. In proposed LOGMARS application, the scanning of key data elements on hazardous materials containers/documentation would trigger the display of a tailored data base applicable to a given function such as receiving, inspection, storage, parking or transportation..

7. BASIC HARDWARE: Microcomputer with printer/scanner.

8. BASIC SOFTWARE: Contractor developed.

9. FUNDING STATUS: Will utilize FY 86 LOGMARS developmental funds when approved.

10. EQUIPMENT ACQUISITION STATUS: TBD.

11. EXTENSION OF APPLICATION: TBD.

12. COST BENEFIT ANALYSIS: TBD.

13. POSITIVE ASPECTS OF APPLYING LOGMARS TECHNOLOGY: Greatly improves the speed and accuracy of data retrieval. Wider distribution of hazardous materials information that will be tailored to specific users.

14. NEGATIVE ASPECTS OF APPLYING LOGMARS TECHNOLOGY: Need for an automated information file to access by scanning a bar code.

LOGMARS LEAD SITE DATA SHEET

1. MAJCOM/BASE: Defense Logistics Agency.

2. POC: Mr. Jim Gorman, DLA, DMECSO, AUTOVON 695-4787.

3. APPLICATION: DLA Inventory Marking.

4. LOCATION: Defense Depot Ogden, UT (DDOU).
   Defense Depot Mechanicsburg, PA (DDMP).
   Defense Depot Memphis, TN (DDMT).
   Defense Depot Tracy, CA (DDTC).
   Defense General Supply Center, VA (DGSC).
   Defense Construction Supply Center, OH (DCSC)

5. LEAD SITE MILESTONES:

   a. Identify Functional Requirements. Completed.

   b. Identify Hardware Requirements. Completed.

   c. Project Funds Available. Completed.

   d. Equipment Contract Awarded. Completed.

   e. Equipment Delivered. Completed.

   f. Test System: Completed.

   g. System Operational. Completed.

6. SYSTEM DESCRIPTION: The inventory marking application provides DLA depots with the capability to print product identification labels, IAW MIL STD 129J with a bar coded National Stock Number (NSN). The objective of the program is to apply a bar coded label to non-marked new procuremnent receipts/items that qualify for repackaging and/or marking and creditable returns.

The system is configured to support two or three bar code printers per CRT console/microprocessor station. Three sizes of label stock are used: small, medium and large. Each size label utilizes a different format and number of lines of free text with the bar coded NSN. The data entry operator inputs the required data based on the item and label format selected, i.e., NSN, Federal Supply Code for Manufacturers (FSCM)/part number, nomenclature, quantity, unit of issue, contract number/PIIN/call order number, date of pack and level of pack. The operator inputs the number of labels to be printed for marking of the material.

A bar code verification device is used to measure readability of the labels and verify compliance with MIL STD 1189A. A manual label applicator is used to facilitate application of the labels produced as well as Bar Code Label Applicators which automate counting and packaging machines. In this operation, the applicators apply bar code labels being produced directly to small poly bags used by Autobaggers.

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7. BASIC HARDWARE: Bar code printers, video display terminals, scanners, process controllers/microprocessors, multiplexors/port concentrators, laser wands, verification devices, line conditioners, isolation transformers, anti-static mats, OCR ribbons, label stock, manual/automatic label dispensers.

8. BASIC SOFTWARE: The video display terminal interface software provides the capability to input source label data and instructions through the processor to the bar code label printers. Application software allows for display of prompts, editing of data, transmitting and recall of information as necessary to perform the required task.

9. FUNDING STATUS: Funded - $15,620.

10. EQUIPMENT ACQUISITION STATUS: Completed.
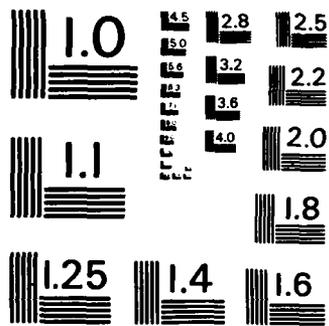
11. EXTENSION OF APPLICATION: None.

12. COST BENEFIT ANALYSIS: Completed.

13. POSITIVE ASPECTS OF APPLYING LOGMARS TECHNOLOGY: DLA and its customers can take advantage of having bar coded product identification markings on its material.

14. NEGATIVE ASPECTS OF APPLYING LOGMARS TECHNOLOGY: None.

MICROCOPY RESOLUTION TEST CHART

NATIONAL BUREAU OF STANDARDS – 1963 – A

LOGMARS LEAD SITE DATA SHEET

1. MAJCOM/BASE: United States Marine Corps (CLASS I).

2. POC: Major R. Maestas, Code LLS-PML, HQMC, Washington, D.C. 20380-0001, AUTOVON 224-1919/5740.

3. APPLICATION: Maritime Prepositioning Ships (MPS).

4. LOCATION: (CLASS I) Development site: MCLB, Albany, GA.

5. LEAD SITE MILESTONES: Application under BETA test & validation of requirement.

6. SYSTEM DESCRIPTION: Deployed vehicles, equipment and containers which are LOGMARS marked, are scanned for inventory, accounting and tracking purposes at time of embarkation and debarkation. Scanning provides an alternative data entry method for the developed Management Decision Support System, (MDSS).

7. BASICS HARDWARE: Equipment consists of Telxon PTC 701 PBCRs w/LS7000 Laser & decode modules interfacing to an IBM compatible PC host running on PC-Focus. Specific suite of equipment specifications can be obtained from the POC.

8. BASIC SOFTWARE: The LOGMARS equipment utilizes TCAL interfacing to a host PC utilizing PC-Focus.

9. FUNDING STATUS: The LOGMARS interface is funded from PIF funds: FY 85, $21,600, the balance funded from USMC funds for the Maritime Prepositioning Ships Program.

10. EQUIPMENT ACQUISITION STATUS: Equipment on hand.

11. EXTENSION OF APPLICATION: The application will be exported to all Marine Amphibious Brigades (MAB's) identified under the MPS program.

12. COST BENEFIT ANALYSIS: Completed.

13. POSITIVE ASPECTS OF APPLYING LOGMARS TECHNOLOGY: The application provides timely and accurate input into the MDSS of the deployed MAB. It results in information conducive to better management of materiels, supplies and equipment.

14. NEGATIVE ASPECTS OF APPLYING LOGMARS TECHNOLOGY: Identified deficiencies and concerns are as follows:

    a. Label adhesion.

    b. Scanning requires immediate proximity to item being scanned.

    c. Survivability of equipment in a deployed environment.

LOGMARS LEAD SITE DATA SHEET

1. MAJCOM/BASE: United States Marine Corps.

2. POC: Major R. Maestas, Code LLS-PML, HQMC, Washington, D.C. 20380-0001, AUTOVON 224-1919/5740.

3. APPLICATION: Automated Armory Inventory and Issue.

4. LOCATION: Marine Corps Recruit Depot, San Diego, CA.

5. LEAD SITE MILESTONES: Completed.

6. SYSTEM DESCRIPTION: The application involves an automated armory containing a preponderance of organizational rifles (M16A1/M16A2). Rifles are encoded by serial numbers and contained in prelabeled bins, they are scanned for daily inventory and positioned by a robotic/conveyor system to facilitate an issue transaction with an encoded weapons custody card. The management system matches proposed issues with an authorized personnel file to insure validity and conducts daily inventory and reconciliation. The next phase of this system will involve improving the formal monthly physical inventory. The intent is to Laser Etch the weapons to allow scanning in lieu of the current manual efforts.

7. BASIC HARDWARE: Scanners are LS7000's interfacing to a DEC PDP11C23 MICRO 2 with LA 120 console printers, 8610 Intermec bar code printers, 92A Okidata ticket printers, SCT 12 fixed code processor and a 101-2A Black Box Passive Adapter.

8. BASIC SOFTWARE: Software specs are available from the POC.

9. FUNDING STATUS: Funding was provided under a USMC armory program, expansion to be funded by OSD PIF funds.

10. EQUIPMENT ACQUISITION STATUS: Completed and on hand.

11. EXTENSION OF APPLICATION: Limited extension with USMC w/o modifications. With modification (to exclude the robotics), the application can be utilized in organizational armories throughout Marine Corps and other component services. Modification will be directed toward a bare bones approach, designed to meet the requirements of the organizational user for an issue transaction and monthly physical inventories.

12. COST BENEFIT ANALYSIS: Completed.

13. POSITIVE ASPECTS OF APPLYING LOGMARS TECHNOLOGY: Expedites issue and inventory of weapons, with an commensurable increase in accuracy.

14. NEGATIVE ASPECTS OF APPLYING LOGMARS TECHNOLOGY: None identified to date.

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LOGMARS LEAD SITE DATA SHEET

1. MAJCOM/BASE: United States Marine Corps (Class I).

2. POC: Major R. Maestas, Code LLS-PML, HQMC, Washington, D.C., 20380-0001, AUTOVON 224-1919/5740.

3. APPLICATION: Electronic Point of Sale (EPOS).

4. LOCATION: Development site - Albany, GA.

5. LEAD SITE MILESTONES: Under development.

6. SYSTEM DESCRIPTION: As part of a basic building block approach, this application interfaces bar code scanning equipment with a mainframe Class I system in a retail stores environment. Utilizing the scanning equipment as a Data Entry device it scans the encoded NSN of the item being purchased, crosses to a data base of information to produce a sales/issue transaction.

7. BASIC HARDWARE: BETA testing is to utilize a Telxon FBCR interfacing to an IBM compatible PC Workstation.
8. BASIC SOFTWARE: The program is to be established in TCAL and PC-Focus.

9. FUNDING STATUS: Funded from OSD PIF FY 84.

10. EQUIPMENT ACQUISITION STATUS: Initial suite of equipment is on hand.

11. EXTENSION OF APPLICATION: The application without modification is to be exported to eight (8) Marine Corp DSSC's. With modification, the application will be available to additional sites requiring an issue function capability.

12. COST BENEFIT ANALYSIS: TBD.

13. POSITIVE ASPECTS OF APPLYING LOGMARS TECHNOLOGY: The objectives of the application are: to control access, expedite check out, increase inventory accuracy, provide a customer receipt at the point of sale, update the host system records on a timely basis, and provide management information.

14. NEGATIVE ASPECTS OF APPLYING LOGMARS TECHNOLOGY: The system assumes bar coded labels have been previously affixed to all issuable items.

LOGMARS LEAD SITE DATA SHEET

1. MAJCOM/BASE: United States Marine Corps (CLASS I).

2. POC: Major R. Maestas, Code LLS-PML, HQMC, Washington, D.C., 20380-0001, AUTOVON 224-1919/5740.

3. APPLICATION: General Purpose TCAL Utility.

4. LOCATION: Development Site - Albany, GA.

5. LEAD SITE MILESTONES: Completed.

6. SYSTEM DESCRIPTION: The General Purpose TCAL Utility was developed to standardize TCAL applications/communication modes and eliminate the requirement for extensive TCAL programmer support to new developments, it is driven by a transaction format table and contains the same transaction definitions contained in other standard Class I data entry methods.

7. BASIC HARDWARE: The General Purpose TCAL Utility is contained in and created using a IBM/XT compiler from which the HEX files may be "burned" into an EPROM chip or soft downloaded.

8. BASIC SOFTWARE: Developed in Telxon Common Application Language (TCAL).

9. FUNDING STATUS: Funded from Marine Corps PIF FY 85: $10,000.

10. EQUIPMENT ACQUISITION STATUS: Equipment is on hand.

11. EXTENSION OF APPLICATION: As part of a basic building block program, it is readily exportable and intended to be used in multiple environments.

12. COST BENEFIT ANALYSIS: The return on investment is determined by the environment and application in which the TCAL utility is ultimately utilized.

13. POSITIVE ASPECTS OF APPLYING LOGMARS TECHNOLOGY: The General Purpose TCAL Utility reduces the dependency on contractor support for application software, while providing significant improvements in terms of flexibility, maintainability, and modifiability of the application software.

14. NEGATIVE ASPECTS OF APPLYING LOGMARS TECHNOLOGY: None identified to date.

LOGMARS LEAD SITE DATA SHEET

1. MAJCOM/BASE: United States Marine Corps (CLASS I).

2. POC: Major R. Maestas, Code LLS-PML, HQMC, Washington, D.C., 20380-0001, AUTOVON 224-1919/5740.

3. APPLICATION: Location Determination.

4. LOCATION: Development Site - Albany, GA.

5. LEAD SITE MILESTONES: Beta testing to begin in late August or early September 1985.

6. SYSTEM DESCRIPTION: As part of a basic building block approach, this application interfaces Bar Code scanning equipment with a mainframe Class I system. Utilizing the scanning equipment as a data entry device, it scans encoded NSNs when available or receives keyed NSNs to generate a proposed location for incoming receipts. Additionally, it creates bar coded labels as necessary.

7. BASIC HARDWARE: The program is established for use with a Telxon FBCR w/LS7000 hand held laser and decode module interfacing to an IBM compatible PC workstation.

8. BASIC SOFTWARE: The program is established in PC FOCUS at the PC workstation.

9. FUNDING STATUS: Funded with USMC O&M.

10. EQUIPMENT ACQUISITION STATUS: The initial suite of equipment is on hand.

11. EXTENSION OF APPLICATION: As part of a basic building block program, it is readily exportable to multiple environments requiring a location determination function, (e.g., Physical inventory, general warehousing).

12. COST BENEFIT ANALYSIS: The return on investment (ROI) is determined by the environment in which the application is used.

13. POSITIVE ASPECTS OF APPLYING LOGMARS TECHNOLOGY: This application establishes a reliable means of input to the locator files, eliminates the manual process associated with determining locations for incoming receipts and ensures file integrity. It also provides front end labeling for items being received without labeling.

14. NEGATIVE ASPECTS OF APPLYING LOGMARS TECHNOLOGY: None identified.

LOGMARS LEAD SITE DATA SHEET

1. MAJCOM/BASE: United States Marine Corps (CLASS I).

2. POC: Major R. Maestas, Code LLS-PML, HQMC, Washington, D.C.,
20380-0001, AUTOVON 224-1919/5740.

3. APPLICATION: LOCATION VERIFICATION.

4. LOCATION: Development site - Albany, GA.

5. LEAD SITE MILESTONES: BETA testing to begin late August or
September 1985.

6. SYSTEM DESCRIPTION: As part of a basic building block approach,
this application interfaces Bar Code scanning equipment with a
mainframe Class I system. Utilizing the scanning equipment as a Data
Entry Device it scans the encoded NSN and location to eliminate the
manual process of conducting location verification.

7. BASIC HARDWARE: The program is established for use with a Telxon
PTC 701 PBCR w/LS7000 hand held laser & decode module, down loading to
an IBM compatible PC workstation.

8. BASIC SOFTWARE: The program is established in TCAL at the PTC
level and PC FOCUS at the PC workstation.

9. FUNDING STATUS: Funded with USMC O&M.

10. EQUIPMENT ACQUISITION STATUS: The initial suite of equipment is
on hand.

11. EXTENSION OF APPLICATION: As part of a basic building block
program, this application is readily exportable into multiple
environments requiring a location verification function, (e.g.,
physical inventory, general warehousing, plant property).

12. COST BENEFIT ANALYSIS: The return on investment (ROI) is
determined by the environment in which the application is used.

13. POSITIVE ASPECTS OF APPLYING LOGMARS TECHNOLOGY: This application
increases the accuracy of the locator file and eliminates the manual
process associated with location verification.

14. NEGATIVE ASPECTS OF APPLYING LOGMARS TECHNOLOGY: None identified.

LOGMARS LEAD SITE DATA SHEET

1. MAJCOM/BASE: Navy/Naval Supply Systems Command

2. POC: O. Smith, SUP 0613A, Autovon 227-7672/7683.

3. APPLICATION: Computer Tape Library Control.

4. LOCATION: NAVSUP Field Activities.

5. LEAD SITE MILESTONES: TBD

6. SYSTEM DESCRIPTION: Each tape library would record several numbers and other key data when tapes are physically removed or returned to the tape library. Preventive maintenance schedules and a standard tape accounting system would be developed.

7. BASIC HARDWARE: TBD

8. BASIC SOFTWARE: TBD

9. FUNDING STATUS: TBD

10. EQUIPMENT ACQUISITION STATUS: TBD

11. EXTENSION OF APPLICATION: Navy-wide.

12. COST BENEFIT ANALYSIS: TBD

13. POSITIVE ASPECTS OF APPLYING LOGMARS TECHNOLOGY: Improved accuracy in inventory of tape libraries, more timely reuse, and improved preventive maintenance scheduling. Reduce time to conduct quarterly inventories and possible savings due to reduced tape requirements.

14. NEGATIVE ASPECTS OF APPLYING LOGMARS TECHNOLOGY: None.

LOGMARS LEAD SITE DATA SHEET

1. MAJCOM/BASE: Navy/Naval Supply Systems Command.

2. POC: O. Smith, SUP 0613A, Autovon 227-7672/7683.

3. APPLICATION: Document control.

4. LOCATION: Aviation Supply Office, Philadelphia, PA, and Ships Parts Control Center, Mechanicsburg, PA.

5. LEAD SITE MILESTONES: TBD.

6. SYSTEM DESCRIPTION: Through the use of bar code technology, the two aforementioned sites will track the movement of purchase order documents through the procurement cycle. The documents will be bar coded and scanned at strategic points to record their status and location.

7. BASIC HARDWARE: IBM 3179, 6 Bar code readers.

8. BASIC SOFTWARE: IDMS/COBOL application programs. UDM II.

9. FUNDING STATUS: 200K.

10. EQUIPMENT ACQUISITION STATUS: Complete

11. EXTENSION OF APPLICATION: N/A

12. COST BENEFIT ANALYSIS: In Process.

13. POSITIVE ASPECTS OF APPLYING LOGMARS TECHNOLOGY: Integration of bar code technology into the tracking of the purchase order documents will enhance document flow, improve tracking, and improve document inventory accuracy.

14. NEGATIVE ASPECTS OF APPLYING LOGMARS TECHNOLOGY: None.

LOGMARS LEAD SITE DATA SHEET

1. MAJCOM/BASE: Navy/Naval Supply systems Command.

2. POC: O. Smith, SUP 0613A, Autovon 227-7672/7683.

3. APPLICATION: Location Survey.

4. LOCATION: Naval supply Centers (NSC's).

5. LEAD SITE MILESTONES:

    a. Identify Hardware Requirements: 1 Jul 84.

    b. Project Funds Available: FY85-86.

    c. Equipment Contract Award: FY-84.

    d. Equipment Received: FY-85.

    e. Test System: FY-85.

    f. System Operational: TBD.

6. SYSTEM DESCRIPTION: To provide a system for collecting and validating
location survey data. Handheld microcomputers will be downloaded from the
mainframe with location survey data to prompt surveyors to the proper location.

7. BASIC HARDWARE: Handheld microcomputers with laser scanners, pen wands,
Tandem mainframe.

8. BASIC SOFTWARE: COBOL application programs. UDM II.

9. FUNDING STATUS: TBD.

10. EQUIPMENT ACQUISITION STATUS: Contract has been awarded.

11. EXTENSION OF APPLICATION: To be proliferated initially FY-86 through
FY-89.

12. COST BENEFIT ANALYSIS: TBD.

13. POSITIVE ASPECTS OF APPLYING LOGMARS TECHNOLOGY:

    a. Increase productivity.

    b. Eliminate keypunching and punch cards.

    c. Capture data faster and more accurately.

14. NEGATIVE ASPECTS OF APPLYING LOGMARS TECHNOLOGY: None.

LOGMARS LEAD SITE DATA SHEET

1. MAJCOM/BASE: Navy/Naval Supply Systems Command.

2. POC: D. Novotny, SUP 0631C, Autovon 225-9091/9099.

3. APPLICATION: Bar coding data elements on nameplates used for identification of parts and equipment.

4. LOCATION: TBD.

5. LEAD SITE MILESTONES: TBD.

6. SYSTEM DESCRIPTION: Selected data elements required by MIL-STD-130F or data elements identified, as necessary, by Navy systems commands will be bar coded on equipment nameplates and used for configuration control and equipment validation. The encoded data will be collected via automatic scanning and collection devices and uploaded to a host computer for subsequent processing.

7. BASIC HARDWARE: TBD

8. BASIC SOFTWARE: TBD

9. FUNDING STATUS: TBD

10. EQUIPMENT ACQUISITION STATUS: TBD.

11. EXTENSION OF APPLICATION: TBD.

12. COST BENEFIT ANALYSIS: TBD.

13. POSITIVE ASPECTS OF APPLYING LOGMARS TECHNOLOGY: This method of data capture will result in increased accuracy and speed in the data collection efforts and concomitant reductions in data collection cost and increase in data base accuracy.

14. NEGATIVE ASPECTS OF APPLYING LOGMARS TECHNOLOGY: None.

LOGMARS LEAD SITE DATA SHEET

1. MAJCOM/BASE: Navy/Naval Supply Systems Command.

2. POC: D. Novotny, SUP 0631C, Autovon 225-9091/9099.

3. APPLICATION: Organic Rework.

4. LOCATION: Navy depot level repair organizations.

5. LEAD SITE MILESTONES: TBD.

6. SYSTEM DESCRIPTION: Bar code labels encoded with material identification data will be affixed to the outer container or package of material being returned to supply from organic overhaul. The data encoded on the labels will be used in the location survey and physical inventory functions.

7. BASIC HARDWARE: TBD.

8. BASIC SOFTWARE: TBD.

9. FUNDING STATUS: TBD.

10. EQUIPMENT ACQUISITION STATUS: TBD.

11. EXTENSION OF APPLICATION: TBD.

12. COST BENEFIT ANALYSIS: TBD.

13. POSITIVE ASPECTS OF APPLYING LOGMARS TECHNOLOGY: Labeling of the material will result in an increase in the accuracy and speed of the data collection effort and a concomitant contribution to the reduction in inventory cost and increase in inventory accuracy.

14. NEGATIVE ASPECTS OF APPLYING LOGMARS TECHNOLOGY: None.

LOGMARS LEAD SITE DATA SHEET

1. MAJCOM/BASE: Navy/Naval Supply Systems Command.

2. POC: O. Smith, SUP 0613A, Autovon 227-7672/7683.

3. APPLICATION: Plant Property Accountability.

4. LOCATION: NAVSUP Field Activities.

5. LEAD SITE MILESTONES: TBD.

6. SYSTEM DESCRIPTION: Bar code technology will be used to collect inventory
data for plant property. Bar code labels will be affixed to plant property.
The data encoded on the label will be collected during inventories through
automatic scanning and collection devices. The data will be uploaded to a host
mini/mainframe computer for compilation.

7. BASIC HARDWARE: TBD.

8. BASIC SOFTWARE: TBD.

9. FUNDING STATUS: TBD.

10. EQUIPMENT ACQUISITION STATUS: TBD.

11. EXTENSION OF APPLICATION: Navy-wide.

12. COST BENEFIT ANALYSIS: TBD.

13. POSITIVE ASPECTS OF APPLYING LOGMARS TECHNOLOGY: This system will result
in an increase in the accuracy and speed of the data collection effort and a
concomitant reduction in inventory cost and an increase in plant property
inventory accuracy.

14. NEGATIVE ASPECTS OF APPLYING LOGMARS TECHNOLOGY: None.

LOGMARS LEAD SITE DATA SHEET

1. MAJCOM/BASE: Navy/Naval Supply Systems Command.

2. POC: D. Novotny, SUP 0631C, Autovon 225-9091/9099.

3. APPLICATION: Repairable Assets Management.

4. LOCATION: At all repairable asset stocking and repair facilities.

5. LEAD SITE MILESTONES: Naval Supply Center, Jacksonville.

6. SYSTEM DESCRIPTION: The number, value, and importance of repairable items have increased significantly in recent years. Furthermore, there is a growing number of repairables which are managed/repaired by one service for multiservice use. Given the life of a repairable asset and the handling it undergoes during its repair-use cycle, a standard means to positively identify each asset is required. A standard identification label with key data elements bar coded would enable the various activities to accurately identify the repairable. Such data elements could include National Stock Number or could consist of simply a unique "license" plate number that could be cross-referenced in a computer data base to all other data.

7. BASIC HARDWARE: TBD.

8. BASIC SOFTWARE: TBD.

9. FUNDING STATUS: TBD.

10. EQUIPMENT ACQUISITION STATUS: TBD.

11. EXTENSION OF APPLICATION: TBD.

12. COST BENEFIT ANALYSIS: TBD.

13. POSITIVE ASPECTS OF APPLYING LOGMARS TECHNOLOGY: Adoption of this method will enhance the repairables tracking process and result in increases in inventory accuracy.

14. NEGATIVE ASPECTS OF APPLYING LOGMARS TECHNOLOGY: None.

LOGMARS LEAD SITE DATA SHEET

1. MAJCOM/BASE: Navy/Naval Supply Systems Command.

2. POC: L. Glasco, SUP 0613, Autovon 227-7672/4106.

3. APPLICATION: An integrated system that will include physical inventory, location survey, shipping, receiving, automating mailing labels to include assignment of registry numbers, production measurement, presorting outgoing mail by zip code, and by unit identification code, and sorting for commissioning of ships.

4. LOCATION: Naval Publications and Forms Center (NPFC), Philadelphia, PA.

5. LEAD SITE MILESTONES: TBD.

6. SYSTEM DESCRIPTION: Bar coded labels will be affixed to location bins and eventually to each item. Automated inventories and location surveys will be conducted using portable bar code scanners. How the other functional areas described will utilize bar coding will be determined at a later date.

7. BASIC HARDWARE: TBD.

8. BASIC SOFTWARE: TBD.

9. FUNDING STATUS: TBD.

10. EQUIPMENT ACQUISITION STATUS: TBD.

11. EXTENSION OF APPLICATION: NPFC only.

12. COST BENEFIT ANALYSIS: TBD.

13. POSITIVE ASPECTS OF APPLYING LOGMARS TECHNOLOGY:

    a. Increase productivity.

    b. Eliminate keypunching.

    c. Capture data faster and more accurately.

14. NEGATIVE ASPECTS OF APPLYING LOGMARS TECHNOLOGY: None.

LOGMARS LEAD SITE DATA SHEET

1. MAJCOM/BASE: Navy/Naval Supply Systems Command.

2. POC: L. Glasco, SUP 0613, Autovon 227-7672/4106.

3. APPLICATION: Use of bar code technology with the DD Form 250 (Material Inspection and Receiving Report) and SF 1103 (Government Bill of Lading).

4. LOCATION: DOD-wide.

5. LEAD SITE MILESTONES: TBD.

6. SYSTEM DESCRIPTION: Potentially, through the use of bar code technology, each of the aforementioned documents will be used by each DOD service/agency to retrieve and record data in their data bases in order to expedite document flow and the material movement and accounting functions. The documents will be bar coded and subsequently scanned at strategic points.

7. BASIC HARDWARE: TBD.

8. BASIC SOFTWARE: TBD.

9. FUNDING STATUS: Joint funding in the amount of $100,000 was provided by the LOGMARS Coordinating Group for developmental and prototype efforts.

10. EQUIPMENT ACQUISITION STATUS: TBD.

11. EXTENSION OF APPLICATION: TBD.

12. COST BENEFIT ANALYSIS: TBD.

13. POSITIVE ASPECTS OF APPLYING LOGMARS TECHNOLOGY: Improved inventory accuracy and positive control of document and material flow.

14. NEGATIVE ASPECTS OF APPLYING LOGMARS TECHNOLOGY: None.

LOGMARS LEAD SITE DATA SHEET

1. **MAJCOM/BASE:** Defense Logistics Agency.

2. **POCs:**

   Mr. Michael Noll, DLA, DMECSO, (AV) 695-4787.   DOD/DLA
   Mrs. Lillie M. Brown, DLA, DMECSO, (AV) 695-4787   DOD/DLA
   Mr. Wayne Andreotti, DLA, DDOU, (AV) 790-7336   DDOU

   Mr. Gerald Gibson, HQ AMC, (AV) 284-8800.   SAAD (RDF/1387)
                                                 FT ORD (RDF/1387)
                                                 FT SHAFTER (RDF)
                                                 SHAD (1387)

   Mr. U.J. West, NAVSUP, (AV) 225-4639.   NAS PATUXENT (RDF)
                                             NSC CHARLESTON (RDF/1387)

   Mrs. Camillo J. Althof, HQ AFLC, (AV) 787-4118. WRALC (RDF/1387)
                                                    OFFUTT AFB (RDF)

   Maj. Richard Maestas, HQ MC, (AV) 224-1919. MCLB BARSTOW (RDF/1387)
                                                MCB PENDLETON (RDF/1387)

   Mrs. Kathy Andersen, HQ DPDS, (AV) 369-6906. DPDO HILL (RDF)

3. **APPLICATION:** DoD LOGMARS Documentation Test Project (Wholesale and Retail Shipping/Receiving).

4. **LOCATIONS:**

   Shipping: Defense Depot Ogden, UT. (DDOU)

   Receiving: Army – Sacramento Army Depot, CA. (SAAD)
                     Ft. Ord, CA.
                     Ft. Shafter, HI.
                     Sharpe Army Depot, CA. (SHAD)

              Navy – NSC Charleston, SC
                     NAS Patuxent River, MD.

         Air Force – Warner Robins ALC, GA.
                     Offutt, AFB, NE.

      Marine Corps – MCLB Barstow, CA.
                     1st. FSSG, MCB Camp Pendleton, CA.

   Defense Property Disposal Office – Hill AFB, UT.

5. LEAD SITE MILESTONES:

    a. Identify Functional Requirements.   Completed.
    b. Identify Hardware Requirements.   Completed.
    c. Project Funds Available.   Completed.
    d. Equipment Contracts Awarded.   Completed.
    e. Equipment Received.   Completed.
    f. Test System.   Completed.
    g. System Operational.   Completed.

6. SYSTEM DESCRIPTION:

    a. __DoD-wide LOGMARS Implementation__: This DoD-wide Documentation test
Project was developed by the Joint Services LOGMARS Documentation Subgroup as
part of a DoD-wide program to implement the DoD Standard Symbology, and to
evaluate and determine standard bar coded data elements for incorporation into
standard DoD documentation. Shipping and receiving documentation that
accompanies or are affixed to material moving through the Logistics system were
tested at the wholesale/retail levels. New bar code versions of two DD Forms,
the 1348-1 (DoD Single Line Item Release/Receipt Document) and the 1387
(Military Shipment Label) were tested in the issue, packing, shipping, and
transportation functions at DDOU, at Sharpe Consolidation Containerization Point
(CCP), (updating the Logistics Intelligence File (LIF) only), and at 10
receiving activities. The Defense Logistics Agency is the lead component in the
Documentation Test Project and serves as the shipping activity to
wholesale/retail receiving sites selected by the Military Services and Defense
Logistics Agency. One of the recommendations in the LOGMARS Final Report was
that Interservice coordination be effected in the areas of shipping and
receiving to assure that the DoD Standard Symbology was applied uniformly
throughout DoD.

Under current DoD procedures shipping and receiving documentation are normally
processed by manual methods and/or through key entry of data (keypunch or CRT)
into manual or mechanized systems. Implementation of the bar code technology
will enhance present or new systems by automating, where feasible, data
entry/collection and processing. Under the test project, common data elements
were bar coded and scanned in the shipping/receiving and transportation
functions. Ten receiving sites tested the Receipt Data Form and seven sites
tested the DD Form 1387.

    b. __Test Forms and Concept__:

    (1) A single-part bar coded Receipt Data Form (RDF) was tested as a
replacement for the multipart DD Form 1348-1. The RDF has two bar coded data
elements: the Document Number and the National Stock Number (NSN) (when the
document number has a Suffix Code it will be encoded as part of the document
number). The form is designed for rapid data collection/entry by both machine
and manual methods. It is printed on a Laser Printer to test high speed
fan-folded paper. The Laser Printer will print 45 pages per minute. Each page
contains three receipt data forms which equals 135 forms printed in one minute.
The text is formatted and merged on the paper in one process. Each form is an
original. The bar code is printed on the form when it is created as a
shipping/receiving document. The RDF is printed with a Pick Ticket attached to
it, separated by a perforation.

R-1.1

At the bottom of the Pick Ticket is a detachable 6-position bar coded Operational Control Number (OCN). The Pick Ticket/OCN are used at the shipping activity and the RDF is used at the receiving site.

(2) A bar coded DD Form 1387, Military Shipment Label, was tested as a part of Military Standard Transportation and Movement Procedures (MILSTAMP) Improvement TOPIC 10 (MIP10), to improve and simplify the gathering and reporting of intransit data. The Transportation Control Number (TCN) and the Piece Number were bar coded. The 1387 was used for all modes of shipment: Freight, Parcel Post and United Parcel Service. It is printed on a Dot Matrix Printer utilizing both medium and low bar code densities. The Dot Matrix Printer at DDOU Prints one form per 14 seconds or 4 forms per minute. As a result of initial testing, the recommendation was adopted to bar code an additional data element on the test DD For 1387. The Consignee DoD Activity Address Code (DoDAAC) will also be bar coded in the "Ultimate Consignee or Mark For" block of the form.

c. Documentation Test:

(1) Shipping: Use of the single-part shipping/receiving document begins in the depot picking function where the Pick Ticket is used by the shipping activity to provide hard copy information necessary to issue, pack and ship the stock.

When the quantity of stock requested on the Picking Ticket has been issued, the customer's Receipt Data Form is detached from the Pick Ticket and placed inside of a poly bag. The poly bag containing the RDF is attached to the outside of the unit pack and the Pick Ticket and OCN are attached to the outside of the unit pack just above the Receipt Data Form. The material is then routed to packing. At packing, the OCN label from the first line item going into a container is detached from the Pick Ticket and affixed to the exterior of the shipping container. It becomes the Master OCN. The Pick Ticket is removed from the item prior to placing it into the shipping container.

Packing a typical shipment includes reading/scanning and the OCN on each line item as it is placed into the shipping container. This read updates the status of the line item in the computer, records accountability of the line item, and identifies it to a container or shipment unit.

When the container has been closed, reading/scanning of the Master OCN on the shipping container, updates the status of all of the records of the line items in the container, and loads the file for subsequent printing of an Automated Packing List (APL), Route Slip and the bar coded DD Form 1387, (Military Shipment Label) at the offer station.

The container moves from the packing station to the scale: weight and cube data are obtained, the Master OCN on the outside of the container is scanned again to access the appropriate file and the shipment is offered to transportation. This input generates the Automated Packing List, Route slip and bar coded DD Form 1387. The forms accompany the material as it is routed to transportation by mode.

At transportation the Automated Packing List facilitates the billing process where the Government Bill of Lading (GBL) or other documentation such as a manifest is printed. Intransit data are transmitted via AUTODIN to the Central Data Collection Point at Tracy, CA (CDCP) and stored when shipment is made from DDOU. Prepositioned Data is also transceived from DDOU to each receiving activity via AUTODIN.

(2) Receiving: When a shipment arrives at a receiving activity, it will be accompanied by three forms: the bar coded DD Form 1387 (affixed to the outside of the container), the Automated Packing List and the bar coded Receipt Data Form (placed inside of a packing list envelope and attached to the outside of the shipping containers on single line shipments; the RDF is attached to the item on Multipack shipments with the APL on the outside of the container).

Use of the bar coded single-part Receipt Data Form begins when the customer receives the material and unpacks the exterior container and verifies the material, quantity and documentation. The bar coded document number and National Stock Number are the keys to accessing the customer receipt suspense file, through scanning, to reconcile the receipt with the requisition. The Automated Packing List facilitates the receipt operation by providing a listing of container contents.

The bar coded TCN on the 1387 is scanned using a portable bar code reader, date of receipt is recorded, and intransit data are transmitted to the CDCP via AUTODIN and matched on the TCN. Files are updated and intransit data reports are generated as required for evaluation purposes. Virtually every aspect of Logistics is involved with the transportation system. One of the most important objectives in this test is to automate the method of gathering and reporting of intransit data, and thereby, eliminate the intransit data card.

d. Prototype Form Interim Use: The commencement of the live test occurred 23 July 1984 at Defense Depot Ogden, Utah, and ended 1 June 1985 when the waiver of signature and retention requirements granted by Defense Logistics Standard Systems Office (DLSSO) terminated.

Defense Depot Ogden will continue to ship the two prescribed bar coded documents in the interim period pending formal approval by the LOGMARS Coordinating Group (LCG) and DLSSO.

By OASD memorandum, 31 May 1985, subject: Interim Use of Logistics Applications of Automated Marking and Reading Symbols (LOGMARS) Test Documents, authorization was granted for interim use of the forms provided testing was successful. The test appears to be successful. All individual test and evaluation reports are to be submitted by 31 August 1985 to DMECSO. The overall project report will be submitted to the LCG/DLSSO by 1 December 1985, recommending one standard version of each test form.

7. BASIC HARDWARE:

a. Shipping - Laser Printer, dot matrix printers, moving beam laser scanner, hand held laser scanners, port concentrator, asynchronous extender, CRTs, rack mounted modem, rack enclosure, stand alone modems, mini CPU.

R-1.3

b. Receiving - Portable bar code readers (PBCRs), laser scanners, wand scanners, CRTs, protocol converters, micro CPUs, printers, communications controllers, front end processors, acoustic couplers, PBCR cradles, stand alone modems.

8. BASIC SOFTWARE: Program Load Modules for bar code readers/scanners; programs required to provide interface/communications capability between portable bar code equipment and CRTs/micros and host computer systems. Application programs required for PBCRs, mini/micro and host computers to facilitate on-line/update capability, data storage, processing and transceiving of data downloaded/uploaded between PBCRs, CPUs and the CDCP.

9. FUNDING STATUS; The test project was funded.

10. EQUIPMENT ACQUISITION STATUS: Completed for test purposes.

11. EXTENSION OF APPLICATION: Expansion to approximately 30 additional sites in the interim period, FY 86-87. DoD-wide implementation pending formal approval of standard bar coded documents by DLSSO.

12. COST BENEFIT ANALYSIS: To be determined.

13. POSITIVE ASPECTS OF APPLYING LOGMARS TECHNOLOGY: The successful incorporation and use of the bar code technology demonstrates the potential for reduction of paper work, improvement of productivity, and increase of receipt, issue shipment and intransit data reporting accuracy.

14. NEGATIVE ASPECTS OF APPLYING LOGMARS TECHNOLOGY: None.

LOGMARS LEAD SITE DATA SHEET

1. MAJCOM/BASE: Joint DOD Component Services.

2. POC: LTC Ira King, Chairman, DOD LOGMARS Permanent Marking Subgroup.

3. APPLICATION: Laser Etched Bar Code Weapons Test.

4. LOCATION: Etching - Warner Robins Air Logistics Center.

         Field sites: Army.............Ft. Benning, GA.
                       Air Force........Robins AFB, GA.
                       Marine Corps.....Camp Lejeune, NC.
                                  Paris Island, SC.

5. LEAD SITE MILESTONES: Final report completed.

6. SYSTEM DESCRIPTION: The purpose of this test was to determine the feasibility of laser etching 3-of-9 bar codes and accompanying Human Readable Interpretation (HRI) on weapons. The test involved laser etching bar coded serial numbers on over 1000 weapons including M16's, M60's, .38 CAL revolvers and .45 CAL automatics, subjecting said weapons to field conditions; and scanning these weapons periodically over a one year period to determine if the bar codes could be read.

7. BASIC HARDWARE: 2 PBCR's, 1 Modem, 1 Acoustic Coupler, 1 Laser Etching system.

8. BASIC SOFTWARE: Bar code reader and laser etching system software.

9. FUNDING STATUS: Application has been funded.

10. EQUIPMENT ACQUISITION STATUS: Completed.

11. EXTENSION OF APPLICATION: If CLP problems are resolved (see paragraph 14 below) this application can be proliferated throughout DOD.

12. COST BENEFIT ANALYSIS: Not applicable.

13. POSITIVE ASPECTS OF APPLYING LOGMARS TECHNOLOGY: Test results showed that weapons can be laser etched with a 3-of-9 bar code and this code can be read after the weapons are subjected to field conditions.

14. NEGATIVE ASPECTS OF APPLYING LOGMARS TECHNOLOGY: Some weapons tested could not be read after being subjected to field conditions. Other weapons tested had poor first read rates. These negative aspects are contributed to a discoloration of the bar code caused by the Cleaner, Lubricant, Preservative (CLP) substance used during Weapons Room Rebuild operations. The test director is in the process of determining a clear coating to be applied over the bar code which would resolve the CLP problems.

LOGMARS LEAD SITE DATA SHEET

1. MAJCOM/BASE: US Army, Tobyhanna Army Depot, (TOAD)

2. POC's: Stuart Crouse,(Co-Chairman), AMCPSCC, SDSTO-T, Autovon 795-7146.

    Frank Murray, (Co-Chairman), NAVSUPSYSCOM, SUP 0613B, Autovon
227-7672.

3. APPLICATION: LOGMARS Test Subgroup:

    a. Bar code label and equipment test and evaluation.

    b. Environmental testing - accelerated weathering.

    c. Generating bar code standards and specifications.

4. LOCATION: Army Materiel Command, Packaging, Storage, and Containerization
Center.

5. LEAD SITE MILESTONES: Ongoing.

6. SYSTEM DESCRIPTION: Not Applicable (N/A).

7. BASIC HARDWARE: Laboratory equipment to simulate environmental conditions,
measure reflectance, and analyze materials.

8. BASIC SOFTWARE: N/A..

9. FUNDING STATUS: Funded.

10. EQUIPMENT ACQUISITION STATUS: Completed.

11. EXTENSION OF APPLICATION: DOD-wide.

12. COST BENEFIT ANALYSIS: N/A.

13. POSITIVE ASPECTS OF APPLYING LOGMARS TECHNOLOGY: Results of tests will
assure that DOD components procure the best available materials and equipment
needed to support the LOGMARS program.

14, NEGATIVE ASPECTS OF APPLYING LOGMARS TECHNOLOGY: None.

LOGMARS LEAD SITE DATA SHEET

1. MAJCOM/BASE: HQ, AMC

2. POCs. Ms. Davenport, AMC, AUTOVON 284-8359; Ms Shimko, NCAD, AUTOVON 977-7353; Mr. Smith, DESCOM, AUTOVON 238-7935.

3. APPLICATION: DSS/ALOC Intransit Visibility.

4. LOCATION: NCAD.

5. LEAD SITE MILESTONES:

    a. Identify functional requirements: Completed.

    b. Identify hardware requirements: Completed.
    c. Project funds available: Completed.

    d. Equipment contract awarded: Completed.

    e. Equipment received: Completed.

    f. Test system - NCAD to Dover Air Force Base : Completed

    g. Test system - NCAD to Supply Support Activity: TBD

    h. Test results due: TBD

    i. Application proliferation: TBD

6. SYSTEM DESCRIPTION: The system is designed to generate transport control movement data in bar code format. The data is captured at each movement stage, converted to an automatic digital network (AUTODIN) Message format, and input directly to an AUTODIN switch for routing to the Logistic Control Activity to update the logistic intelligence file (LIF).

7. BASIC HARDWARE: Dot Matrix Printer - label generation; bar code reader with wand with RS232 interface; simplified query response terminal (SQRT) with RS232 interface; and concentrator and dial interface unit for connection to AUTODIN.

8. BASIC SOFTWARE: Extract program to pass transportation control and movement document (TCMD) to printer - Management Information Systems Directorate, NCAD; printer format and American Standard Code for Information Interchange Standard Coded Data conversion to bar code; read validate program - bar code reader; message format program - SQRT; and terminal line sharing and AUTODIN protocol -concentrator.

9. FUNDING STATUS: Financed DOD LOGMARS funding.

    a. FY 83 funds allocated: $99,000.

    b. FY 83 funds spent: $78,000.

    c. FY 83 funds returned: $21,000.

    d. FY 84 funds allocated: $33,000.

10. EQUIPMENT ACQUISITION STATUS: Complete for test only.

11. EXTENSION OF APPLICATION: As this application is partially dependent on the aerial port of debarkation ability to scan the labels and update through their computer system, extension of application to Sharpe Army Depot (SHAD) will be dependent on the Military Air Command system upgrade at Travis Air Force Base, CA.

12. COST BENEFIT ANALYSIS: Not completed. Initial reviews indicates keyboard input savings at label generation and punch and batch control savings for data capture.

13. POSITIVE ASPECTS OF APPLYING LOGMARS TECHNOLOGY: Accurate and timely capture of data; rapid update of LIF; and immediate query response facilities.

14. NEGATIVE ASPECTS OF APPLYING LOGMARS TECHNOLOGY:

    a. Bar code printer purchased was not best available. The bar code reader has limited user-owner programming support.

    b. Communications interface has limited expansion options.

    c. The above are lessons learned, but are not failures. The overall system is highly successful.

LOGMARS LEAD SITE DATA SHEET

1. MAJCOM/BASE: Joint DOD Component Services.

2. POC: LTC Ira King, Chairman, DOD LOGMARS Permanent Marking Subgroup, AUTOVON 787-4118.

3. APPLICATION: Laser Etched Bar Code Reparable Assets Test.

4. LOCATION: Air Force.........Nellis AFB, NV.
              Army............. Fort Rucker, AL.

5. LEAD SITE MILESTONES: Final Report to be completed by October 1985.

6. SYSTEM DESCRIPTION: This test is being conducted to determine the practicability of etching bar coded identification data on materials and items within DOD. The primary testing effort of this DOD laser project will be the etching or reparable assets to include weapons replacement assemblies, line replaceable units, and shop replaceable units. The etched reparable assets will be returned to agencies for field use. Final site scannings will be performed to determine the effects of field use on the readability of the etched bar codes. A final report will be published and disseminated after a test period of approximately 1 year.

7. BASIC HARDWARE: 2 PBCR's, 1 Modem, 1 Acoustic Coupler, 1 Laser Etching system.

8. BASIC SOFTWARE: Bar Code Reader and Laser Etching System Software.

9. FUNDING STATUS: Completed.

10. EQUIPMENT ACQUISITION STATUS: Completed.

11. EXTENSION OF APPLICATION: If test results are positive, to be proliferated throughout DOD.

12. COST BENEFIT ANALYSIS: TBD.

13. POSITIVE ASPECTS OF APPLYING LOGMARS TECHNOLOGY: Test will determine the feasibility of using laser etched bar codes for reparable assets.

14. NEGATIVE ASPECTS OF APPLYING LOGMARS TECHNOLOGY: Funding and labor hours required to perform the test

COMPONENT: AMCPSCC (SDSTO-T) Tobyhanna, PA 18466-5097.

PROJECT: Bar Code Verification Devices

DATE: 9 July 1985.

REFERS TO: CODASCAN 3600 Verification Instrument.

APPLICATION: Verification of Contractor receipts.

PROBLEM: Verification of labels on rough or uneven surfaces in a depot environment.

SOLUTION: There is no immediate solution to this problem. The CODASCAN 3600 is a contact scanning device, and as such requires a smooth flat surface for proper decoding and verification of a bar code. It has been recommended that DLA depots discontinue use of the CODASCAN 3600 in a warehouse environment and utilize the RJS Inspector, which has also been procured for depot verification, to verify bar codes on new procurements and in-house produced labels. DLA is working with other DoD components and industry to develop specifications for a 3-of-9 bar code verifier suited for the DoD depot environment.

FROM, Chief, DMECSO, c/o DGSC, Bldg. T113, Richmond, VA 23297

POC/PHONE: Jim Gorman (AV) 695-4787

TITLE OF ORIGINATOR: Equipment Specialist.

ORGANIZATION: DLA-OW.

LOGMARS LESSONS LEARNED

PROPONENT: AMCPSCC (SDSTO-T) Tobyhanna, PA. 18466-5097.

SUBJECT: In-house Bar Code Label Production.

DATE: 9 July 1985.

REFERS TO: Smearing of Labels.

APPLICATION: Marking of new receipts and returns.

PROBLEM: A smearing problem has surfaced regarding the labels being produced at the depots. When the verifier or other contact reading device is drawn across the bar code symbol it leaves a black line through the symbol. Bar code symbols with black lines will produce a "no read" situation. When the label is rubbed against another surface, the symbol smears. This lowers the print contrast which also promotes "no reads", especially when attempting to use a contact scanning device.

SOLUTION: Using an OCR quality ribbon will alleviate the streaking and smearing problem.

FROM: Chief, DMECSO, c/o DGSC, Bldg T113, Richmond, VA 23297.

POC/PHONE: Jim Gorman, (AV) 695-4787.

TITLE OF ORIGINATOR: Equipment Specialist.

ORGANIZATION: DLA-OW.

LOGMARS LESSONS LEARNED

PROPONENT: Sharpe Army Depot (SHAD), SDSSH-IM, Lathrop, CA 95331.

SUBJECT: Lessons Learned DD Form 1387.

DATE OF SUBMISSION: 1 July 1985.

THIS SUBMISSION PERTAINS TO: Application Software.

APPLICATION: Retail Receiving Test, CCP Transhipment.

PROBLEM: The problem is the incompatibility of the CCP Document Number intransit Data File (YAC 54) inquiry and the Transportation Control Number in processing "single line" items. This inquiry accepts a document number but because the bar code scanner reads a TCN, the two formats conflict.

SOLUTION: A System Change Request, DSHAMD431201, was submitted to Logistics Systems Support Activity (LSSA) for the needed changes to correct this situation.

LESSON LEARNED: A need to be aware of the incompatibility problem well in advance of testing so that corrective action can be taken before test results are affected.

FROM: Commander, Sharpe Army Depot, Lathrop, CA 95331.

POC/PHONE: Doug Bennett, AUTOVON 462-2653.

TITLE OF ORIGINATOR: Computer Specialist.

ORGANIZATION: SDSSH-IM.

LOGMARS LESSONS LEARNED

PROPONENT: SHAD (SDSSH-IM) Lathrop, CA 95331

SUBJECT: Lessons Learned DD-Form 1387.

DATE OF SUBMISSION: 1 July 1985.

THIS SUBMISSION PERTAINS TO: Hardware Performance.

APPLICATION: Retail Receiving Test, CCP Transhipment.

PROBLEM: The LS 7000 bar code scanner would not read the Transportation Control Number (TCN) consistently. It usually took several scans before the TCN was successfully read.

SOLUTION: The LS 7000 scanner should be traded for an improved model, the LS 7000 IIP. This scanner was tested and was found to read any bar code with no difficulty. If scanner cannot be traded in for the improved model, it has been suggested that the LS 7000 be up-graded with a new chip.

LESSON LEARNED: More research should have been accomplished to correctly identify which bar code scanner would adequately fit the needs of the proposed test sites.

FROM: Commander, Sharpe Army Depot, Lathrop, CA 95331.

POC/PHONE: Don Thorpe, AUTOVON 462-2653.

TITLE OF ORIGINATOR: Computer Equipment Analyst.

ORGANIZATION: SDSSH-IM

LOGMARS LESSONS LEARNED

PROPONENT: AMCPSCC (SDSTO-T), TOBYHANNA, PA 18466-5097.

SUBJECT: Lessons Learned RDF.

DATE OF SUBMISSION: 12 Jul 1985.

THIS SUBMISSION PERTAINS TO: Other.

APPLICATION: Wholesale Receiving Test.

PROBLEM: Even though equipment problems played a major role in why the RDF test could not be conducted using an automated process, the fact that inquiry task YHDRR (formerly UHDRR) was not worked would not allow access to the PMRD suspense file on the SDS.

SOLUTION: Resubmit SCR in order to gain real time access to the SDS PMRD suspense file.

LESSON LEARNED: If possible insure that programming and program changes are accomplished prior to implementation time.

FROM: Commander, Sacramento Army Depot, Sacramento, CA.

POC/PHONE: John Suazo/ AUTOVON 839-2153.

TITLE OF ORIGINATOR: LOGMARS Coordinator.

ORGANIZATION: SDSSA-RRM.

LOGMARS LESSONS LEARNED

PROPONENT: AMCPSCC (SDSTC-T), TOBYHANNA, PA 18466-5097.

SUBJECT: Lessons Learned RDF.

DATE OF SUBMISSION: 17 May 1985.

THIS SUBMISSION PERTAINS TO: Site Preparation.

APPLICATION: Retail Receiving Test.

PROBLEM: There was no site preparation by the contractor. We were not really aware of what would be required in regards to physical facilities needed.

SOLUTION: Site tours should be made by contractor to ensure the location is ready for equipment installation. This would point out such deficiencies as insufficient power, lack of proper connections, telephone access available if required.

LESSON LEARNED: It is the minor (so it seems) details that can make it hard to complete a hookup.

FROM: Commander, HQS, 7th Inf. Div., Fort Ord, CA 93941.

POC/PHONE: Doris M. Davis/AUTOVON 929-5504/2712.

TITLE OF ORIGINATOR: Supply Systems Analyst.

ORGANIZATION: AFZW-DI-SP-C.

PROPONENT: AMCPSCC (SDSTO-T), TOBYHANNA, PA 18466-5097.

SUBJECT: Lessons Learned RDF.

DATE OF SUBMISSION: 17 May 1985.

THIS SUBMISSION PERTAINS TO: Training.

APPLICATION: Retail Receiving Test.

PROBLEM: Contractor did not have equipment set up and ready for training. The trainers virtually had to unpack and set up all the equipment they trained on. Site manager training was conducted after operator training.

SOLUTION: Trainers should arrive at the site at least 1 day before actual training is to begin. This would allow ample time for setting up equipment and preparation for training. It would be beneficial for the site manager to be trained prior to operators being trained.

LESSON LEARNED: Contractor should allow some time for site preparation, also for delays in travel.

FROM: Commander, HQS, 7th Inf. Div., Fort Ord, CA 93941.

POC/PHONE: Doris M. Davis/AUTOVON 929-5504/2712

TITLE OF ORIGINATOR: Supply Systems Analyst.

ORGANIZATION: AFSWA-DI-SP-C.

LOGMARS LESSONS LEARNED

PROPONENT: AMCPSCC (SDSTO-T), TOBYHANNA, PA 18466-5097.

SUBJECT: Lessons Learned RDF.

DATE OF SUBMISSION: 17 May 1985.

THIS SUBMISSION PERTAINS TO: Installation.

APPLICATION: Retail Receiving Test.

PROBLEM: Contractor did no hardware installation. The test site participants
and USALOGC representative did virtually all of the hardware installation.
Contractor only came on site when pressured to complete the software interface.

SOLUTION: Contractor should be on site for hardware delivery and installation.
Representative should be thoroughly familiar with requirements of the contract.

LESSON LEARNED: Put this in writing (in the contract itself) that the
contractor will be on site and install hardware.

FROM: Commander, HQS, 7th Inf. Div., Fort Ord, CA 93941

POC/PHONE: Doris M. Davis/AUTOVON 929-5504/2712.

TITLE OF ORIGINATOR: Supply Systems Analyst.

ORGANIZATION: AFZW-DI-SP-C.

PROPONENT: AMCPSCC (SDSTO-T), TOBYHANNA, PA 18466-5097.

SUBJECT: Lessons Learned RDF.

DATE OF SUBMISSION: 17 May 1985.

THIS SUBMISSION PERTAINS TO: Operational Procedures.

APPLICATION: Retail Receiving Test.

PROBLEM: Telephone line restrictions precluded hard wiring from operating sites to the computer site. Because of this, each division site had to have 2 telephones available, one to send the data and one to notify the receiving location that the warehouse was ready to send. On the installation side, the protable bar code readers were brought to Supply Division by the user and then hand carried to the AMO for uploading. When uploading was completed, readers were picked up by Supply Division personnel and returned to user.

SOLUTION: Direct telephone hookups should be available with an auto answer modem on the receiving end.

LESSON LEARNED: The uploading was a time consuming effort without the direct on site hookup.

FROM: Commander, HQS, 7th Inf. Div., Fort Ord, CA 93941

POC/PHONE: Doris M. Davis/AUTOVON 939-5504/2712.

TITLE OF ORIGINATOR: Supply Systems Analyst.

ORGANIZATION: AFZW-DI-SP-C.

PROPONENT: AMCPSCC (SDSTO-T), TOBYHANNA, PA 18466-5097.

SUBJECT: Lessons Learned RDF.

DATE OF SUBMISSION: 17 May 1985.

THIS SUBMISSION PERTAINS TO: Hardware Performance.

APPLICATION: Retail Receiving Test.

PROBLEM: Hardware performance is basically satisfactory. A problem with the recharging of batteries in the decoder module (which powers the laser scanner) was caused by faulty connector wire.

SOLUTION: Wire was replaced by vendor and batteries charge now.

FROM: Commander, HQS, 7th Inf. Div., Fort Ord, CA 93941.

POC/PHONE: Doris M. Davis/AUTOVON 929-5504/2712.

TITLE OF ORIGINATOR: Supply Systems Analyst.

ORGANIZATION: AFZW-DI-SP-C

PROPONENT: AMCPSCC (SDSTO-T), TOBYHANNA, PA 18466-5097.

SUBJECT: Lessons Learned RDF.

DATE OF SUBMISSION: 17 May 1985.

THIS SUBMISSION PERTAINS TO: Hardware Interface.

APPLICATION: Retail Receiving Test.

PROBLEM: Hardware interface was too complicated. Connections had to be made through too many pieces of equipment. The more equipment, the greater chance of problems. This also created software interface problems, in that each additional piece of equipment requires another software (protocol) interface.

SOLUTION: The Management Information Systems should be directly involved in planning stage of any new system, since they ultimately receive the data. If Management Information systems is involved at the beginning, available hardware resources would be better identified. Requirements for hardware could be tailored to fit existing equipment, rather than adding equipment to complete interface.

LESSON LEARNED: Thorough planning should be done before any commitment for hardware or software is made. This couild prevent costly amendments to the contract.

FROM: Commander, HQS, 7th Inf. Div., Fort Ord, CA 93941

POC/PHONE: Dolis M. Davis/AUTOVON 929-5504/2712

TITLE OF ORIGINATOR: Supply Systems Analyst.

ORGANIZATION: AFZW-DI-SP-CA.

PROPONENT: AMCPSCC (SDSTO-T), TOBYHANNA, PA 18466-5097

SUBJECT: Lessons Learned RDF.

DATE OF SUBMISSION: 17 May 1985.

THIS SUBMISSION PERTAINS TO: Delivered Software.

APPLICATION: Retail Receiving Test.

PROBLEM: Delivered software had to be modified. These were minor modifications however and should be considered as a normal part of the test implementation.

FROM: Commander, HQS, 7th Inf. Div., Fort Ord, CA 93941

POC/PHONE: Doris M. Davis/AUTOVON 929-5504/2712.

TITLE OR ORIGINATOR: Supply Systems Analyst.

ORGANIZATION: AFZW-DI-SP-C.

PROPONENT: AMCPSCC (SDSTO-T), TOBYHANNA, PA 18466-5097.

SUBJECT: Lessons Learned RDF.

DATE OF SUBMISSION: 17 May 1985.

THIS SUBMISSION PERTAINS TO: Communication Software.

APPLICATION: Retail Receiving Software

PROBLEM: Communication software would not work. Initial attempts to upload bar code readers were unsuccessful. The communications controller was not configured correctly to interface with the front end processor.

SOLUTION: Contractor programmer had to come on site to write the correct software. Vendor who furnished the hardware was also on site trying to solve the problem.

LESSON LEARNED: Contractor must be on site to insure everything is properly written and configured.

FROM: Commander, HQS, 7th Inf. div., Fort Ord. CA 93941

POC/PHONE: Dolis M. Davis/AUTOVON 929-5504/2712.

TITLE OR ORIGINATOR: Supply Systems Analyst.

ORGANIZATION: AFZW-DI-SP-C.

NOTE:

1. Equipment was delivered haphazardly. Equipment should be delivered at one time.

2. Contractor should have equipment that is installed, up and ready to go prior to training of operators.

3. Contractor should make periodic site visits during total contract period. This is a must prior to installation of equipment. (No contract should be awarded until all possible bidders have had site tour and can see what they are bidding on.)

4. Site visits would be invaluable in pointing out minor problems, which turn into major problems. i.e., something as simple as the correct power plug. Is there a dedicated phone line? Continuous power source? Is power subject to being turned off at night when recharging is done?

END

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