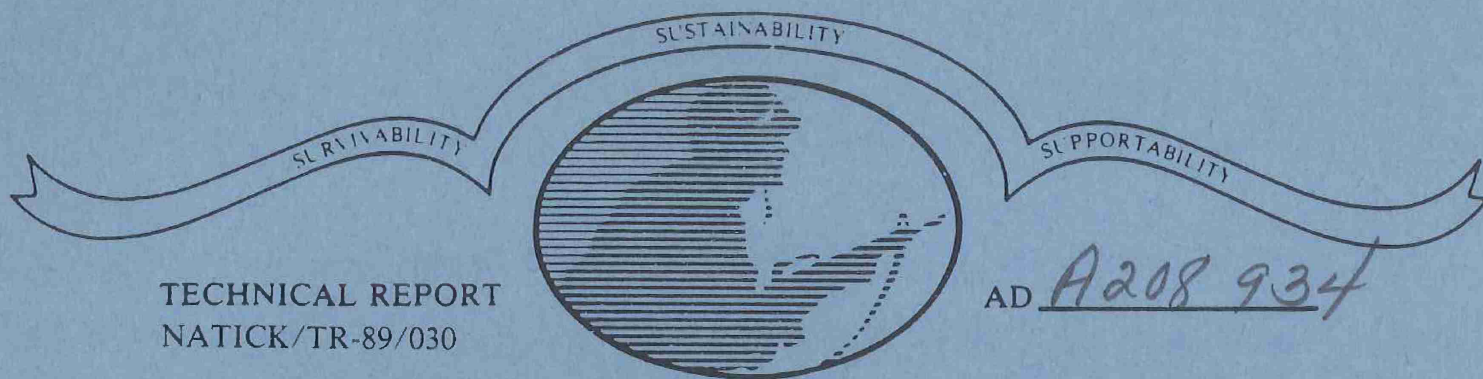




TECHNICAL REPORT
NATICK/TR-89/030

AD A208 934

AIRDROP MISSIONS AND EQUIPMENT MANAGEMENT SYSTEM

BY
NANCY E. FUCCILLO

MAY 1989

INTERIM REPORT FEBRUARY 1987 TO DECEMBER 1988

TECHNICAL LIBRARY
U.S. ARMY NATICK RD&E CENTER
NATICK, MA 01760-5000

APPROVED FOR PUBLIC RELEASE;
DISTRIBUTION UNLIMITED

UNITED STATES ARMY NATICK
RESEARCH, DEVELOPMENT AND ENGINEERING CENTER
NATICK, MASSACHUSETTS 01760-5000
ADVANCED SYSTEMS CONCEPTS DIRECTORATE

DISCLAIMERS

The findings contained in this report are not to be construed as an official Department of the Army position unless so designated by other authorized documents.

Citation of trade names in this report does not constitute an official endorsement or approval of the use of such items.

DESTRUCTION NOTICE

For Classified Documents:

Follow the procedures in DoD 5200.22-M, Industrial Security Manual, Section II-19 or DoD 5200.1-R, Information Security Program Regulation, Chapter IX.

For Unclassified/Limited Distribution Documents:

Destroy by any method that prevents disclosure of contents or reconstruction of the document.

REPORT DOCUMENTATION PAGE				Form Approved OMB No. 0704-0188		
1a. REPORT SECURITY CLASSIFICATION UNCLASSIFIED			1b. RESTRICTIVE MARKINGS			
2a. SECURITY CLASSIFICATION AUTHORITY			3. DISTRIBUTION/AVAILABILITY OF REPORT Approved for public release; distribution unlimited.			
2b. DECLASSIFICATION/DOWNGRADING SCHEDULE			5. MONITORING ORGANIZATION REPORT NUMBER(S)			
4. PERFORMING ORGANIZATION REPORT NUMBER(S) NATICK/TR-89/030			7a. NAME OF MONITORING ORGANIZATION			
6a. NAME OF PERFORMING ORGANIZATION USA NATICK RD&E CENTER		6b. OFFICE SYMBOL (If applicable) STRNC-AA	7b. ADDRESS (City, State, and ZIP Code)			
6c. ADDRESS (City, State, and ZIP Code) Kansas Street, Natick, MA 01760-5015			9. PROCUREMENT INSTRUMENT IDENTIFICATION NUMBER			
8a. NAME OF FUNDING/SPONSORING ORGANIZATION		8b. OFFICE SYMBOL (If applicable)	10. SOURCE OF FUNDING NUMBERS			
8c. ADDRESS (City, State, and ZIP Code)			PROGRAM ELEMENT NO. 62210	PROJECT NO. D283	TASK NO. AB	
					WORK UNIT ACCESSION NO. DA311413 DA312270	
11. TITLE (Include Security Classification) AIRDROP MISSIONS AND EQUIPMENT MANAGEMENT SYSTEM						
12. PERSONAL AUTHOR(S) NANCY E. FUCCILLO						
13a. TYPE OF REPORT INTERIM		13b. TIME COVERED FROM FEB 87 TO DEC 88		14. DATE OF REPORT (Year, Month, Day) 1989 MAY		
15. PAGE COUNT 38						
16. SUPPLEMENTARY NOTATION						
17. COSATI CODES			18. SUBJECT TERMS (Continue on reverse if necessary and identify by block number)			
FIELD	GROUP	SUB-GROUP	AIRDROP COMPUTER PROGRAMS			
			AIRDROP EQUIPMENT LOADS			
			AIRDROP MISSION PLANNING RIGGING			
19. ABSTRACT (Continue on reverse if necessary and identify by block number)						
Manual airdrop mission planning procedures are inefficient and prone to error. Riggers and supply clerks can be occupied with tedious paperwork for several days, and changes in missions can cause further delays. This report documents the development of the Airdrop Missions and Equipment Management System (AMEMS). The objective of the project was to develop prototype computer programs to improve the operations of airdrop rigging units. AMEMS reduces mission planning time by 90%, allowing one operator to plan a mission in approximately 40 minutes. AMEMS significantly increases accuracy and improves readiness. Riggers are freed from paperwork and are available to rig loads. Budget forecasting is also enhanced by the system's mission costing option. In addition, AMEMS can be used as a tool for contingency planning and remote site rigging. (SOW) ←						
20. DISTRIBUTION/AVAILABILITY OF ABSTRACT ☒ UNCLASSIFIED/UNLIMITED ☐ SAME AS RPT. ☐ DTIC USERS			21. ABSTRACT SECURITY CLASSIFICATION UNCLASSIFIED			
22a. NAME OF RESPONSIBLE INDIVIDUAL NANCY FUCCILLO			22b. TELEPHONE (Include Area Code) (508) 651-5065		22c. OFFICE SYMBOL STRNC-AA	

TABLE OF CONTENTS

	<u>Page</u>
LIST OF TABLES	iv
INTRODUCTION	1
Background	1
Objective	1
Approach	1
THE MANUAL MISSION PLANNING SYSTEM	2
THE AIRDROP MISSIONS AND EQUIPMENT MANAGEMENT SYSTEM	7
The Database	7
The Programs	8
AMEMS FIELD DEMONSTRATION TEST	12
AMEMS PRODUCTIVITY IMPROVEMENTS	31
FUTURE EFFORTS	32

Accession For	
NTIS GRA&I	☒
DTIC TAB	☐
Unannounced	☐
Justification	
By _____	
Distribution/	
Availability Codes	
Dist	Avail and/or Special
A-1	



LIST OF TABLES

<u>Table</u>	<u>Page</u>
1. Airdrop Equipment Worksheet.	3
2. Airdrop Mission Loads Report.	13
3. Airdrop Mission Loads and Equipment Report.	14
4. Airdrop Mission Equipment Total Report.	23
5. Airdrop Mission Equipment Total Issue Report.	26
6. Airdrop Mission Equipment Total Hand Receipt.	29

AIRDROP MISSIONS AND EQUIPMENT MANAGEMENT SYSTEM

INTRODUCTION

Background

In fiscal year 1987, the Advanced Systems Concepts Directorate (ASCD) of the US Army Natick Research, Development and Engineering Center began a 2-year project titled "Enhancement of Personal Computer Models in Support of Airdrop Rigging."

This effort was initiated when it became obvious, through work conducted for another airdrop project, that the planning of airdrop missions was inaccurate and inefficient. Riggers and supply clerks spent days compiling lists of equipment required to rig loads for a mission. Errors were often made in the calculation of rigging item quantities, in pulling these items from inventory, in updating inventory records, and in generating hand receipts.

Objective

ASCD believed that improvements in the operation of airdrop rigging units could be realized by automating the mission planning process. The objective of this project was to develop prototype mission planning programs to reduce time and manpower requirements and improve accuracy.

Approach

The 612th Quartermaster Company (QM CO), Fort Bragg, North Carolina, was selected as the development site. The 612th QM CO rigs loads for units at Fort Bragg that are not part of the 82nd Airborne Division. Manual airdrop mission planning procedures had to be analyzed to determine automation requirements. Interviews were conducted at the 612th with those responsible for mission planning. A prototype mission planning system, called the Airdrop Missions and Equipment Management System (AMEMS), was then developed and has been in a state of ongoing revision and enhancement based on user requirements and requests.

Due to funding problems in FY88, the final module of AMEMS is being developed in FY89 as part of the project titled "Advanced Automated Concepts for the 82nd Division (Airborne)."

THE MANUAL MISSION PLANNING SYSTEM

Personal interviews were conducted at the 612th QM CO with a Chief Warrant Officer responsible for mission planning. The goal was to obtain detailed information about a rigging company's requirements and procedures for planning an airdrop mission (a mission is defined as a collection of loads, such as vehicles, weapons, or containers, to be airdropped). Several trips to Fort Bragg were necessary to fully understand the aspects of the process, which is described below.

The first step in planning an airdrop mission is the coordination meeting. Units requesting missions must first acquire the aircraft for the mission and then meet with 612th personnel to fill out a mission coordination form. This form identifies such things as the requesting unit, the loads to be airdropped, the available aircraft, and the drop date. A warrant officer then assigns a Noncommissioned Officer (NCO) to fill out the airdrop equipment worksheet, commonly referred to as the cheat sheet. The cheat sheet provides a multiple page spreadsheet indicating all equipment (such as clevises, slings, D-rings, and honeycomb) required to rig the loads for the mission (see Table 1). To manually complete the cheat sheet, the NCO must perform the following:

- (1) write the load names across the first row of the page;
- (2) indicate the quantity of each load type in the next row;
- (3) for each load, multiply each rigging item quantity listed in the field manual by the specified number of the load type, locate the item in the first column of the cheat sheet, and enter the result in the appropriate space; and
- (4) add the quantities indicated across each row and enter the total in the last column of the cheat sheet.

Any items listed in the field manual but not listed on the cheat sheet are written in by hand on the last page. When designating extraction lines and extraction parachutes, the NCO must refer to the mission coordination form to determine the aircraft from which the loads are to be dropped. This is essential because different aircraft require different extraction parachutes and extraction line lengths. The NCO must also be aware of the extraction system to be used for the load so that the correct components may be specified.

The completed cheat sheet must be verified by the warrant officer. Errors often occur in recording the correct rigging item quantities from the field manual, in listing these amounts in the correct column or row, in multiplying the field manual item quantity by the specified number of the load type, and in calculating the totals for each item. These errors are not always detected by the warrant officer.

The total rigging item quantities are then written on a "pick list", which indicates a location for each piece of equipment and is used to gather the items from the warehouse. The total quantities for nonexpendable items are also transferred to a hand receipt that must be signed by the unit requesting the mission. Errors can occur when item quantities are written on the wrong

TABLE 1. Airdrop Equipment Worksheet.

AIRDROP EQUIPMENT WORKSHEET

UNIT TO BE DROPPED: 18th FA

DROP DATE: 10/1/88

PLACE: _____

EQUIPMENT TO BE DROPPED:

1) M198 LAPES

5) M998

9) _____

2) M198 LVAD

6) CDS

10) _____

3) 5 TON 925 LVAD

7) _____

11) _____

4) 5 TON 925 LAPES

8) _____

12) _____

NOMENCLATURE OF EACH LOAD TO BE DROPPED:	M198 LVAD	M198 LAPES	5 TON 925 LAPES	5 TON 925 LVAD	M998	CDS						
QUANTITY OF EACH LOAD	4	4	4	4	9	16						TOTAL
Bag, Cargo A-22						16						16
Bracket, Assy. Susp. M-35												
Bracket, Assy. Susp. M-59												
Bracket, Assy. Susp. (5 Ton)				8								8
Cargo, Load Tiedown	10	32	152	216								500
Clevis, Susp. Large	20	24	24	54	45							127
Clevis, Susp. Med.					54							54
Clevis, Tiedown Platform	124	176	52	206	180							638
EFTC 12K												
EFTC 35K w/12' Cable												
EFTC 35K w/16' Cable					9							9
EFTC 35K w/20' Cable	4											4
EFTC 35K w/24' Cable												
Cover, Large Clevis			24	24								48
Cover, Type IV Link	7	10	8	5								30
Drive-off Aid												
Frame Extension												
Knife, Release Guillotine												
Line, Multi-lp 60' 1-lp TY 26		4										4
Line, Multi-lp 60' 3-lp TY 26	4				4							8
Line, Multi-lp 60' 4-lp												
Line, Multi-lp 60' 5-lp												
Line, Multi-lp 60' 6-lp		4	4	4								12
Line, Multi-lp 120' 6-lp												
Line, Multi-lp 140' 3-lp												
Line, Multi-lp 160' 1-lp												
Link, Type IV	72											72
Link, Conn. (L-Bar)						32						32
Load Coupler 8-Spool												
Load Coupler 12-Spool												
Platform 8'												
Platform 12'												
Platform 16' TYPE V					9							9
Platform 20' TYPE V												
Platform 24' TYPE V	4	4	4	4								16
Platform 28'												
Platform 32'												
Prcht, Cargo, 6-12d						16						16
Prcht, Pilot, 68"												

TABLE 1. Airdrop Equipment Worksheet (cont'd).

NOMENCLATURE OF EACH LOAD TO BE DROPPED:	1000 LB	500 LB	250 LB	125 LB	62.5 LB	31.25 LB	15.625 LB	7.8125 LB	3.90625 LB	TOTAL
Prcht, G-11A	24				27					51
Prcht, G-11B				34						34
Prcht, G-13										
Prcht, G-14										
Prcht, Extrc. 15'		4	4							8
Prcht, Ext. 22'					9					9
Prcht, Ext. 28'	4	8	4	4						20
Prcht, Cargo 26' HV										
Release, Cargo 5,000 lb										
Release, Cargo M-1					4					4
Release, Cargo M-2	4			4						8
Riser Exten. 120' 3-lp										
Shackle, Small										
Shackle, Susp. w/Screw Pin	2	2								4
Shackle, G-13										
Sling, 3' 3-lp										
Sling, 3' 2-lp										
Sling, 9' 2-lp					18					18
Sling, 11' 2-lp										
Sling, 12' 2-lp										
Sling, 16' 2-lp	74	26			30					130
Sling, 20' 2-lp	96			112	18					226
Sling, 9' 3-lp										
Sling, 11' 3-lp										
Sling, 12' 3-lp										
Sling, 16' 3-lp										
Sling, 20' 3-lp										
Sling, 3' 4-lp			8	2						10
Sling, 9' 4-lp	8	8	4	4						24
Sling, 11' 4-lp										
Sling, 12' 4-lp	12	2								14
Sling, 16' 4-lp			8	8	18					34
Sling, 20' 4-lp	74	26	8	8						116
Static Line, Cargo w/Knife										
Strap, Conn. 60"					16					16
Strap, Conn. 120"										
Strap, Prcht Release										
Strap, Prcht Multi-Cut(3)	8			2	2					12
Link, Two-point 3-3/4"	4	8	4	4	16					36
Link, Two-point 5 1/2"			4	4						8
Link, Four-point		4	4	4						12
Spacer, Large										
Load Cover, End										
Load Cover, Side										
Shear Strap 60"										
Adhesive Paste										
Buffer, Cotton										
Cloth, Cotton Duck	4	4	4	4	4					20
Cord, Nylon Type III	2	2	2	2	2	2				12
Cushioning Material	2	2	2	2	2					10
Felt 1/2"	8	8	8	8	12					50
Lumber 2x4			40	60	60					160
Lumber 2x6 4x4x4			80	52						132
Lumber 2x8										
Lumber 2x10										
Lumber 2x12										
Pad, Energy dis.	13	11	8	8	8	5				53
Plywood 3/4"	2	2	2	2	2					10
Plywood 1/2"										

TABLE 1. Airdrop Equipment Worksheet (cont'd).

NOMENCLATURE OF EACH LOAD TO BE DROPPED:	M198 1VAD	M198 LAPES	STON 92'S LAPES	STON 92'S LVAD	M998	CD'S					
QUANTITY OF EACH LOAD	4	4	4	4	9	16					TOTAL
Seals, Steel Strap											
Strapping, Steel, 5/8"											
Thread, Cotton Ticket #5											
Tape, Adhesive, Masking	8	8	8	8	8						40
Tape, Adhesive, LAPES	4	4	8			7					24
Webbing, Nylon 1/2" Tubular	2	2	2	2	3	1					12
Webbing, Nylon 1" Tubular			1	1	1						5
Webbing, Nylon Type VIII											
Webbing, Nylon Type X											
Webbing, Nylon Type XXVI											
Webbing, Cotton 80 lb.	2	2	2	2	3	1					12
Nails (6d, 8d, 10d, 12d)											
Skidboards A-22											
Washer 2"											
Band, Retainer											
Chalk, Marking											
Grease Pencils											
IRC 1000	4	4	4	8	2						22
Extractor 212000	4	4	4	4	4						20
Multisize link 1/2"	8	8	8	16	9						49
Multisize link 1/4"	2	2	2	4	2						12
3rd 24" 200 200 100				4							4
Binder 1000			152	216							368
Bl. 22, 550			8	8							16
IRC 1000			4								4
RS 15, 24" Type V	2	2	2	2							8
RS 15, 24" Type V					18						18
IRC 1000	4	4	4	4	9						25
Roller pads, 24" Type V	16	16	16	16							64
Panel, Type V, 1/4"	44	44	44	44	63						239
Panel, Type V, Rear	4	4	4	4	9						25
Big line extraction			8								8
D-ring heavy duty			152	216							368
Line ext 28' 4' 100 XXVI			4								4
Brackets outside EFTA	4			4	8						26
Bracket inside EFTA	4			4	12						26
Roller 120d, 16" Type V					36						36
Panel, 3rd ext line					18						18
Clevis 150g SUS2 cargo						16					16

line, noted incorrectly, or missed entirely in the transfer from the cheat sheet to the pick list or to the hand receipt.

These manual mission planning procedures can take up to several days to complete. A major problem is that those involved in the planning have limited time available to prepare the paperwork. A cheat sheet that includes six types of loads can take about 3 days to fill out because the NCO does not have several consecutive uninterrupted hours to dedicate to paperwork. Once the cheat sheet is finished, it is given to someone in the warehouse, who may leave it on a desk until time is available to transfer the item quantities to the pick list and to the hand receipt. The warehouse, therefore, can hold the process up for another couple of days.

THE AIRDROP MISSIONS AND EQUIPMENT MANAGEMENT SYSTEM

It was obvious that automation of the mission planning process could result in reduced planning time, reduced manpower requirements, and increased accuracy. Improvements in inventory control would also be possible with an automated system.

In February 1987, an Intergovernmental Personnel Act (IPA) agreement was established with Dr. Stephen K. Kwan of Northeastern University to acquire the technical expertise needed to create prototype computer programs for a mission planning system. After evaluating various computer software, R:BASE relational database management software was selected for use. A COMPAQ portable 286 computer with 640K bytes of RAM, a 20-Mb hard disk, and a 1.2-Mb floppy disk drive was chosen for its portability and disk drive features. A dot matrix printer was also included as part of the system.

The Database

The first step involved in the automation of the mission planning process was the creation of the database. An R:BASE database is actually a set of related tables organized so that any particular piece of information rarely needs to be entered more than once.

It was decided that the airdrop database should have three primary tables: the equipment (items) table, the loads table, and the missions table. The relationships between the three tables are important and are classified as "many to many". In considering missions and loads, it is evident that a mission uses many loads and a load may be used in many missions. The same type of "many to many" relationship exists between loads and items. A load uses many items and an item is used to rig many loads.

The equipment table stores data for each rigging item, such as the National Stock Number (NSN), description, unit of issue, location in the warehouse, balance on hand, cost, and an indication of expendability (Y or N). The database currently includes over 350 rigging items.

The loads table stores (for each load) the load name, military designation, a randomly assigned load identification number, type of airdrop (low velocity airdrop [LVAD] or low altitude parachute extraction system [LAPES]), possible aircraft from which the load can be dropped as well as the field manual reference and date, load dimensions and weight, center of gravity, and the number of items required to rig the load. The database currently includes approximately 55 loads routinely dropped by the 612th. Closely related to this table is a load rigging table that identifies the individual rigging items required for each load as listed in the field manuals.

The missions table includes such information as the name of the mission, the date, military unit, status, authorization, and the number of loads to be airdropped. Linked to the missions table is a table that specifies the load types and quantities for each particular mission.

The Programs

Prototype programs were written to manipulate the data for mission planning. This collection of programs has been named the Airdrop Missions and Equipment Management System (AMEMS). AMEMS also includes on-screen forms and help screens as well as reports for the output of information. Missions can be planned with AMEMS simply by identifying the load types and quantities to be airdropped.

AMEMS has been designed to be very user friendly. The system is menu driven and limited training is needed to learn to operate it. No mission planning or load rigging knowledge is required. Each AMEMS menu offers a help option that explains all selections on the menu and a return option that permits the return to the previous menu. The main menu presents a choice of entering one of five submenus: the equipment menu, the loads menu, the missions menu, the database maintenance menu, and the print blank forms menu (see Figure 1).

The Equipment Menu. The options in this menu allow a user to add new items of rigging equipment, to edit the information for items already included in the database, to delete items, to change NSNs, to browse (view) the item information on the screen, and to print a list of the equipment. With the edit and browse options, it is possible to limit the number of items by restricting the NSNs or by selecting only those items containing a partial description. The print option provides a report on the equipment that can be sorted on any one of several fields.

The Loads Menu. The options in this menu enable the user to add new loads, to edit the information for loads already entered, to delete loads, to browse load information on the screen, and to print a list of loads.

The Load Rigging Menu.

From the loads menu, it is also possible to enter the load rigging menu, which allows users to add, edit, delete, browse, and print lists of equipment required to rig each load.

The Missions Menu. The missions menu allows users to add new missions, to edit the information for missions already entered, to delete old missions, to change mission names, to browse mission information on the screen, and to print a list of missions.

The Mission Loads Menu.

From the missions menu, it is also possible to enter the mission loads menu, which enables users to add loads to a mission, edit or delete the loads already included in a mission, or to browse the loads in the mission. When adding loads to a mission, the load must first be identified, either by its randomly assigned load identification number, by its load name, or by its military designation. Partial load names or military designations can also be entered. A list of all loads containing that partial name or military designation will then be displayed for selection. If only one load contains that partial name or military designation, it will automatically appear on the load add form.

AIRDROP MISSION AND EQUIPMENT MANAGEMENT SYSTEM

AMEMS

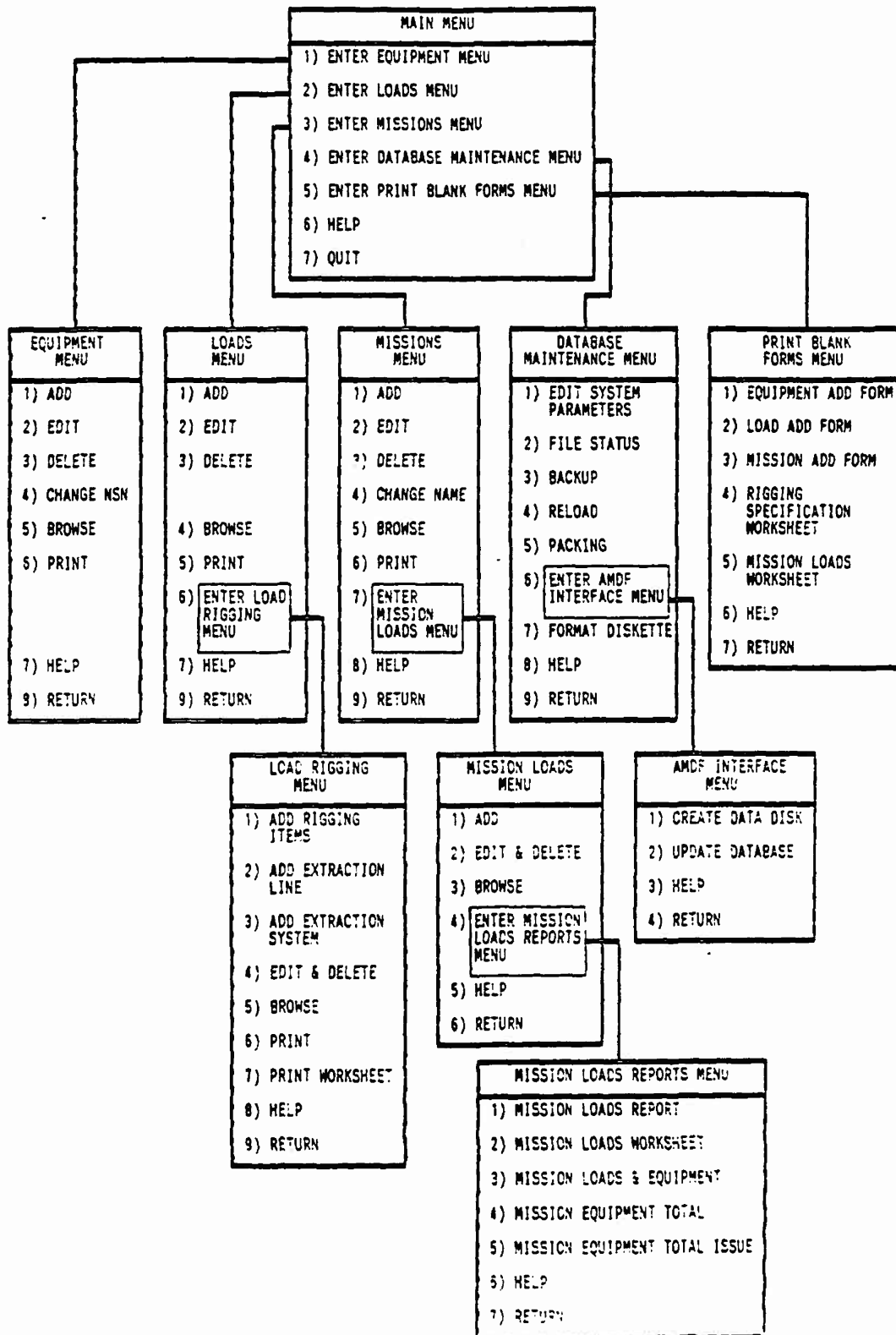


Figure 1. AMEMS main menu and submenus.

The next step in adding the load is to indicate the aircraft from which the load will be dropped. This step will cause the computer to select the extraction parachute and extraction line required for that aircraft from the database. A menu will appear at the top of the screen listing the extraction systems that have been entered into the database for possible use with that load. Choosing an extraction system will cause the computer to select the proper components in compiling the list of required equipment.

The Mission Loads Report Menu.

From the mission loads menu, it is also possible to enter the mission loads reports menu. The options in this menu produce the reports that are required for the mission.

The first option generates the mission loads report, which lists load name, quantity, identification number, military designation, type of airdrop, aircraft and extraction system for each load specified for the mission. This report is a summary of what appears across the first two rows of the cheat sheet.

The second option generates the mission loads worksheet, which lists all loads included in the database and indicates the loads to be dropped for the specified mission. When using this optional form, changes to the loads can be written in by hand and given to the computer operator for input.

The third option in the menu produces the loads and equipment report. This report lists the loads and the items required to rig each load in the mission. It is a collection of lists similar to the tables of equipment required that appear in the field manuals.

The fourth option creates the mission equipment total report, which is a recapitulation of all rigging items and total quantities required for the mission. This report also lists the costs associated with the mission: (a) the rig cost, which is the cost for expendable items only; (b) the drop cost, which is the cost for the expendables, M-21 cutters, and a percentage of the equipment total cost that is estimated for missing or damaged items; and (c) the total equipment cost, which is the cost for all rigging items required for the mission.

The mission equipment total issue report, the fifth option, produces two reports. The issue report can be sorted by location and is the computer-generated version of the pick list used by warehouse personnel in gathering the items required for a mission. A column is provided for indicating the quantities actually issued in case there is a discrepancy between what is required and what is available. The hand receipt can also be produced with this option. This report lists only the nonexpendable items that must be returned by the unit requesting the mission.

The Database Maintenance Menu. This menu provides several options. The first option displays the AMEMS version number and date, the user name (company, battalion, etc.), and the identification number to be assigned to the next load. The only parameter that a user can change is the estimated percentage of equipment that will be missing or damaged when a load is dropped. This figure is used in the calculation of the mission drop cost. The

second option indicates the amount of used and available space on the hard disk. The third option is the backup option, which creates a copy of the database on a floppy diskette. If a problem with the database occurs, the fourth option would be used to reload the backup copy. The fifth option packs the database, which means that it eliminates the empty space created when working with the database and makes it as compact as possible. The format diskette option prepares a floppy diskette for use.

The AMDF Interface Menu.

From the database maintenance menu, it is also possible to enter the Army Master Data File (AMDF) interface menu. This menu is used to produce a data disk containing the equipment NSNs for which cost and other related data is required. The diskette should then be delivered to COSCOM where a program will be run to extract the necessary data from AMDF and write it to the diskette. When this stage is complete, the diskette should be used to update the database with option 2. This process is to be repeated each month to provide the most current cost data for accurate calculations of mission costs.

The Print Blank Forms Menu. The options on this menu print blank equipment, load, and mission add forms. These forms are similar to those that appear on the screen when using the add options. They can be filled in and given to the operator for input. The blank rigging specification worksheet is used to indicate the rigging items that must be input for a new load. The blank mission loads worksheet lists all of the loads included in the database and is used to indicate the loads that the operator should add to a mission. These forms are not used in the manual system but have been created for the convenience of those planning the missions.

Because the tables in the database are linked together, any changes to rigging item information will be made not only in the equipment table but also wherever that item is used to rig a load. If an item NSN is deleted from the items table, that item will also be deleted from every load it had been used on. Also, if information is changed or deleted from the loads table, the same changes or deletions will be made to the missions that include that load.

AMEMS FIELD DEMONSTRATION TEST

A field demonstration test of AMEMS was conducted at the 612th QM CO, Fort Bragg, North Carolina on 12-15 September 1988. The purpose of the demonstration was to quantify the time and labor savings resulting from the use of AMEMS. The demonstration proved, as had been claimed, that AMEMS reduces the time required to plan a large-scale mission from several days to less than an hour.

The mission used for the demonstration test included the following loads: 4 M198 155-MM howitzers Low Velocity Airdrop (LVAD), 4 M198 155-MM howitzers Low Altitude Parachute Extraction System (LAPES), 4 M925 5-ton trucks LVAD, 4 M925 5-ton trucks LAPES, 8 M998 1 1/4-ton utility trucks (HMMWV) LVAD, and 16 Container Delivery Systems (CDS). All loads were to be dropped from C130 aircraft. This demonstration compared the manual and computerized planning that takes place between the mission coordination meeting and the actual rigging of the loads.

The mission was planned manually by three people over a 5-day period under the supervision of a Chief Warrant Officer. The cheat sheet, indicating load types and required rigging item quantities, was filled out in a total of 3 hours and 38 minutes over a 3-day period. In order to complete this form, the NCO had to consult the field manuals for each load type. The cheat sheet was then verified by a warrant officer. Verification in this case took about 1 hour and 45 minutes on the third day of planning. The total quantities on the cheat sheet were then transferred to the warehouse pick list. This task was completed in approximately 50 minutes on the fourth day of planning. The nonexpendable item quantities were also transferred from the cheat sheet to the hand receipt in about 45 minutes on the fifth day. The total time required to complete all of the manual mission planning paperwork was just under 7 hours.

Planning the same mission with AMEMS took one computer operator a total of approximately 40 minutes, which included the time required to print all necessary reports. The mission was added to the database in 1 minute and 14 seconds using the AMEMS mission add option. The load types, including indications of aircraft, extraction systems, and quantities were added to the mission with the mission loads add option in 2 minutes and 56 seconds.

The operator then printed several reports by merely making a selection from the menu and designating the mission name. The minutes:seconds required to generate the reports for this mission are listed below:

● Mission Loads Report	:32	(see Table 2)
● Mission Loads and Equipment Report	9:12	(see Table 3)
● Mission Equipment Total Report	11:15	(see Table 4)
● Mission Equipment Total Issue Report		(see Table 5)
● Mission Equipment Total Hand Receipt	13:13	(see Table 6)

The Mission Equipment Total Issue Report and the Hand Receipt can be generated together or individually. The time noted represents that required to generate both reports at the same time.

TABLE 2. Airdrop Mission Loads Report.

612th OM. CO.
AMEMS Ver.2.0

AIRDROP MISSION LOADS REPORT

DATE : 09/14/88 (88258)
PAGE : 1

SORTED BY : LOAD ID NO.

MISSION	MISSION DATE	STATUS	MILITARY UNIT	AUTHORIZATION
18TH FA AA	10/01/88 (88275)	PLANNED	18TH FA BDE	

QUAN.	MIL.DESIG.	LOAD ID NO.	LOAD NAME	TYPE OF AIRDROP	AIRCRAFT	EXT.SYS.
16		25	CDS	LVAD	C130	
4	M198	38	155-MM HOWITZER W/ACCY EQUIP	LVAD	C130	EFTC
8	M998	41	1 1/4 TON UTILITY TRUCK (HMMWV)	LVAD	C130	EFTC
4	M198	44	155-MM HOWITZER W/ACCY EQUIP	LAPES	C130	LAPES
4	M925	54	5 TON TRUCK	LVAD	C130	EFTC
4	M925	55	5 TON TRUCK	LAPES	C130	LAPES

TOTAL : 40 LOAD(S) MADE UP OF 6 LOAD TYPE(S) SPECIFIED

----- END OF REPORT -----

TABLE 3. Airdrop Mission Loads and Equipment Report.

612th OM. CO.
ANEMS Ver.2.0

AIRDROP MISSION LOADS AND EQUIPMENT REPORT
SORTED BY LOAD ID NO. AND ITEM NSN

DATE : 09/14/88 (88258)
PAGE : 1

MISSION	MISSION DATE	STATUS	MILITARY UNIT	AUTHORIZATION
18TH FA AA	10/01/88 (88275)	PLANNED	18TH FA BDE	

QUAN.	MIL. DESIG.	LOAD ID	LOAD NAME	TYPE OF AIRDROP	AIRCRAFT	EXT.SYS.
16		25	CDS	LVAD	C130	
	ITEM NSN	ITEM DESCRIPTION	EACH LOAD	TOTAL QUAN.	UNIT	USAGE
	1670-00-216-7297	PARACHUTE, PILOT, 68 IN	1.00	16.00	EA	
	1670-00-587-3421	BAG, CARGO, AIRDROP, TYPE A-22	1.00	16.00	EA	
	1670-00-753-3928	ENERGY PAD (SHEET)	2.00	32.00	SHEET	
	1670-00-883-1654	SKID CAR, A-22 PLATFORM	1.00	16.00	EA	
	1670-00-393-2371	PARACHUTE, CARGO, G-120	1.00	16.00	EA	
	4020-00-240-2146	CORD, NYLON, TYPE III, 550 LB	1.00	16.00	EA	
	7510-00-266-5016	TAPE, PSA CLOTH, 2 IN	1.00	16.00	AS REQUIRED	
	8305-00-074-5124	TAPE, ADHESIVE, 2 IN	1.00	16.00	AS REQUIRED	
	8305-00-082-5752	WEBBING, NYLON TUBULAR, WHITE 1/2 IN	1.00	16.00	AS REQUIRED	
	8305-00-177-5069	WEB, NYLON, NAT TYPE XXVI	1.00	16.00	AS REQUIRED	
	8305-00-268-2411	WEBBING, COTTON, 1/4 IN 80 LB	1.00	16.00	AS REQUIRED	
	8310-00-917-3942	THREAD, COTTON TICKET, 85 CO GLAZED	1.00	16.00		
----- END OF THIS LOAD						

TABLE 3. Airdrop Mission Loads and Equipment Report (cont'd).

612th OM. CO.
AMEMS Ver.2.0

AIRDROP MISSION LOADS AND EQUIPMENT REPORT
SORTED BY LOAD ID NO. AND ITEM NSN

DATE : 09/14/88 (88258)
PAGE : 2

MISSION	MISSION DATE	STATUS	MILITARY UNIT	AUTHORIZATION
18TH FA AA	10/01/88 (88275)	PLANNED	18TH FA 3DE	

QUAN.	MIL. DESIG.	LOAD ID	LOAD NAME	TYPE OF AIRDROP	AIRCRAFT	EXT.SYS.
4	M198	38	155-MM HOWITZER W/ACCY EQUIP	LVAD	C130	EFTC
	ITEM NSN	ITEM DESCRIPTION	EACH LOAD	TOTAL QUAN.	UNIT	USAGE
	1670-00-040-8135	PARACHUTE, CARGO, EXTRACTION, 28 FT (HD)	1.00	4.00	EA	C130
	1670-01-062-6313	LINE, EXTRACTION, 60 FT 3 LOOP TYPE XXVI	1.00	4.00	EA	C130
	1670-00-434-5787	COUPLING, AIRDROP, EFTC, 35K, W/20 FT CABLE	1.00	4.00	EA	EFTC
	1670-00-003-1953	LINK, 2 POINT, 3 3/4 IN	1.00	4.00		
	1670-00-040-8219	STRAP, PARACHUTE RELEASE, MULTIPLE CUT	2.00	8.00	EA	
	1670-00-269-1107	PARACHUTE, CARGO, 100 FT DIA, G-11A	5.00	20.00	EA	
	1670-00-360-0328	COVER, CLEVIS, LARGE	5.00	20.00	EA	
	1670-00-360-0329	COVER, LINK	16.00	64.00	EA	
	1670-00-400-2770	RELEASE, CARGO PARACHUTE, M-2	1.00	4.00	EA	
	1670-00-432-2505	SLING, SUSPENSION, 11 FT 4 LOOP TYPE XXVI	2.00	8.00	EA	
	1670-00-753-3794	SLING, CARGO, AIRDROP, 20 FT 2 LOOP TYPE X	20.00	80.00	EA	
	1670-00-753-3928	ENERGY PAD (SHEET)	40.00	160.00	SHEET	
	1670-00-703-5988	LINK ASSEMBLY, TYPE IV	17.00	68.00	EA	
	1670-00-823-5041	SLING, CARGO, AIRDROP, 12 FT 3 LOOP TYPE X	1.00	4.00	EA	
	1670-00-937-0273	LASHING, DACRON, 15 FT 10,000 LB	71.00	284.00	EA	
	1670-00-998-5116	STRAP, PARACHUTE RELEASE W/FASTENER & KNIFE	2.00	8.00	EA	
	1670-01-062-6305	SLING, CARGO, AIRDROP, 9 FT 4 LOOP TYPE XXVI	2.00	8.00	EA	
	1670-01-062-6306	SLING, CARGO, AIRDROP, 3 FT 4 LOOP TYPE XXVI	1.00	4.00	EA	
	1670-01-062-6308	LINE, MULTI-LOOP, 16 FT	2.00	8.00	EA	
	1670-01-162-2366	RAIL, 24 FT, TYPE V	2.00	8.00	EA	
	1670-01-162-2372	CLEVIS ASSEMBLY, TYPE V (TIEDOWN CLEVIS)	54.00	216.00	EA	
	1670-01-162-2374	BRACKET, OUTSIDE EFTA	1.00	4.00	ea	
	1670-01-162-2375	BRACKET, INSIDE EFTA	1.00	4.00	ea	
	1670-01-162-2376	BRACKET ASSEMBLY, EXT	1.00	4.00	EA	
	1670-01-162-2381	TANDEM LINK ASSY (MULTI-PURPOSE)	4.00	16.00	EA	
	1670-01-162-2385	NOSE BUMPER, TYPE V	1.00	4.00	EA	
	1670-01-162-2388	ROLLER PAD, 24 FT, TYPE V	4.00	16.00	EA	
	1670-01-168-8397	PANEL, MAIN, TYPE V	11.00	44.00	EA	
	1670-01-168-8398	PANEL, REAR, TYPE V	1.00	4.00	EA	
	1670-01-183-2678	PANEL, LINE, EXTRACTION	2.00	8.00	EA	
	4020-00-240-2146	CORD, NYLON, TYPE III, 550 LB	1.00	4.00	EA	
	4030-00-090-5354	CLEVIS ASSEMBLY, LARGE	10.00	40.00	EA	
	4030-00-432-2516	CLEVIS, SUSPENSION WITH SCREW PIN AND SLEEVE	4.00	16.00	EA	
	4030-00-678-8526	CLEVIS, MEDIUM	4.00	16.00	EA	
	5315-00-010-4659	AILS, 80	1.00	4.00	AS REQUIRED	
	5510-00-220-6148	LUMBER 2 X 6	4.00	16.00	EA	
	5510-00-220-6248	LUMBER 2 X 10	5.00	20.00	EA	
	5530-00-120-4981	PLYWOOD 3/4 X 48 X 96	5.00	20.00	SHEETS	
	7510-00-266-5016	TAPE, PSA CLOTH, 2 IN	2.00	8.00	AS REQUIRED	
	8040-00-273-8713	PASTE, ADHESIVE, 1 GAL	1.00	4.00	AS REQUIRED	
	8135-00-664-6958	CUSHIONING MATERIAL, PACKAGING, CELLULOSE WAD	1.00	4.00	EA	
	8305-00-082-5752	WEBBING, NYLON TUBULAR, WHITE 1/2 IN	1.00	4.00	AS REQUIRED	
	8305-00-242-3593	CLOTH, COTTON DUCK, 60 IN	15.00	60.00	AS REQUIRED	
	8305-00-263-3591	WEBBING, NYLON, TYPE VIII (RESTRAINT STRAP)	1.00	4.00	YARDS	
	8305-00-268-2411	WEBBING, COTTON, 1/4 IN 90 LB	1.00	4.00	AS REQUIRED	

TABLE 3. Airdrop Mission Loads and Equipment Report (cont'd).

612th QM. CO.
AMENS Ver.2.0

AIRDROP MISSION LOADS AND EQUIPMENT REPORT
SORTED BY LOAD ID NO. AND ITEM NSN

DATE : 09/14/88 (88258)
PAGE : 3

MISSION	MISSION DATE	STATUS	MILITARY UNIT	AUTHORIZATION
18TH FA AA	10/01/88 (88275)	PLANNED	18TH FA BDE	

----- END OF THIS LOAD

TABLE 3. Airdrop Mission Loads and Equipment Report (cont'd).

612th QM. CO.
AMEMS Ver.2.0

AIRDROP MISSION LOADS AND EQUIPMENT REPORT
SORTED BY LOAD ID NO. AND ITEM NSN

DATE : 09/14/88 (86258)
PAGE : 4

MISSION	MISSION DATE	STATUS	MILITARY UNIT	AUTHORIZATION
18TH FA AA	10/01/88 (86275)	PLANNED	18TH FA BDE	

QUAN.	MIL. DESIG.	LOAD ID	LOAD NAME	TYPE OF AIRDROP	AIRCRAFT	EXT.SYS.
8	M998	41	1 1/4 TON UTILITY TRUCK (HMMWV)	LVAD	C130	EFTC
	ITEM NSN	ITEM DESCRIPTION	EACH LOAD	TOTAL QUAN.	UNIT	USAGE
	1670-00-687-5451	PARACHUTE, CARGO, EXTRACTION, 22 FT	1.00	8.00	EA	C130
	1670-01-062-6313	LINE, EXTRACTION, 60 FT 3 LOOP TYPE XXVI	1.00	8.00	EA	C130
	1670-00-434-5785	COUPLING, AIRDROP, EFTC, 35K, W/16 FT CABLE	1.00	8.00	EA	EFTC
	1670-00-040-8219	STRAP, PARACHUTE RELEASE, MULTIPLE CUT	2.00	16.00	EA	
	1670-00-168-5070	RELEASE, CARGO PARACHUTE, M-1	1.00	8.00	EA	
	1670-00-269-1107	PARACHUTE, CARGO, 100 FT DIA, G-11A	3.00	24.00	EA	
	1670-00-360-0328	COVER, CLEVIS, LARGE	3.00	24.00	EA	
	1670-00-360-0329	COVER, LINK	3.00	24.00	EA	
	1670-00-568-0323	BAND, RETAINER	1.00	8.00	BOX	
	1670-00-753-3928	ENERGY PAD (SHEET)	12.00	96.00	SHEET	
	1670-00-783-5988	LINK ASSEMBLY, TYPE IV	2.00	16.00	EA	
	1670-00-893-1631	CLEVIS, LOAD TIEDOWN	20.00	160.00	EA	
	1670-00-937-0271	TIEDOWN ASSEMBLY, 15 FT (DACRON) 10,000 LB	37.00	296.00	EA	
	1670-01-062-6302	SLING, CARGO, AIRDROP, 20 FT 2 LOOP TYPE XXVI	6.00	48.00	EA	
	1670-01-062-6304	SLING, CARGO, AIRDROP, 9 FT 2 LOOP TYPE XXVI	1.00	8.00	EA	
	1670-01-062-7761	SLING, CARGO, AIRDROP, 16 FT 2 LOOP TYPE XXVI	4.00	32.00	EA	
	1670-01-162-2369	RAIL, 16 FT, TYPE V	2.00	16.00	EA	
	1670-01-162-2374	BRACKET, OUTSIDE EFTA	1.00	8.00	ea	
	1670-01-162-2375	BRACKET, INSIDE EFTA	1.00	8.00	ea	
	1670-01-162-2376	BRACKET ASSEMBLY, EXT	1.00	8.00	EA	
	1670-01-162-2381	TANDEM LINK ASSY (MULTI-PURPOSE)	4.00	32.00	EA	
	1670-01-162-2382	ROLLER PAD, 16 FT, TYPE V	4.00	32.00	EA	
	1670-01-162-2385	NOSE BUMPER, TYPE V	1.00	8.00	EA	
	1670-01-168-8397	PANEL, MAIN, TYPE V	7.00	56.00	EA	
	1670-01-168-8398	PANEL, REAR, TYPE V	1.00	8.00	EA	
	1670-01-183-2678	PANEL, LINE, EXTRACTION	2.00	16.00	EA	
	4020-00-240-2146	CORD, NYLON, TYPE III, 550 LB	1.00	8.00	EA	
	4030-00-090-5354	CLEVIS ASSEMBLY, LARGE	5.00	40.00	EA	
	4030-00-678-8562	CLEVIS, SUSPENSION, CARGO	6.00	48.00	EA	
	5510-00-220-6148	LUMBER 2 X 6	3.00	24.00	EA	
	5530-00-128-4981	PLYWOOD 3/4 X 48 X 96	4.00	32.00	SHEETS	
	7510-00-266-5016	TAPE, PSA CLOTH, 2 IN	1.00	8.00	AS REQUIRED	
	8040-00-273-8713	PASTE, ADHESIVE, 1 GAL	1.00	8.00	AS REQUIRED	
	8135-00-664-6958	CUSHIONING MATERIAL, PACKAGING, CELLULOSE WAD	1.00	8.00	EA	
	8305-00-074-5124	TAPE, ADHESIVE, 2 IN	1.00	8.00	AS REQUIRED	
	8305-00-082-5752	WEBBING, NYLON TUBULAR, WHITE 1/2 IN	1.00	8.00	AS REQUIRED	
	8305-00-242-3593	CLOTH, COTTON DUCK, 60 IN	1.00	8.00	AS REQUIRED	
	8305-00-263-3591	WEBBING, NYLON, TYPE VIII (RESTRAINT STRAP)	1.00	8.00	YARDS	
	8305-00-268-2411	WEBBING, COTTON, 1/4 IN 80 LB	1.00	8.00	AS REQUIRED	
	8305-00-958-3685	FELT SHEET, 1/2 IN	4.00	32.00	AS REQUIRED	

----- END OF THIS LOAD

TABLE 3. Airdrop Mission Loads and Equipment Report (cont'd).

612th QM. CO.
ANEMS Ver.2.0

AIRDROP MISSION LOADS AND EQUIPMENT REPORT
SORTED BY LOAD ID NO. AND ITEM NSN

DATE : 09/14/88 (88258)
PAGE : 5

MISSION	MISSION DATE	STATUS	MILITARY UNIT	AUTHORIZATION
18TH FA AA	10/01/88 (88275)	PLANNED	18TH FA BDE	

QUAN.	MIL. DESIG.	LOAD ID	LOAD NAME	TYPE OF AIRDROP	AIRCRAFT	EXT.SYS.
4	M198	44	155-MM HOWITZER W/ACCY EQUIP	LAPES	C130	LAPES
ITEM NSN	ITEM DESCRIPTION	EACH LOAD	TOTAL QUAN.	UNIT	USAGE	
1670-00-003-1956	LINE, EXTRACTION, 20 FT 4 LOOP TYPE XXVI	2.00	8.00	EA		
1670-00-003-4391	KNIFE PARACHUTE BAG	2.00	8.00	EA		
1670-00-006-2752	LINK ASSEMBLY, 4 POINT	1.00	4.00	EA		
1670-00-040-8135	PARACHUTE, CARGO, EXTRACTION, 20 FT (HD)	2.00	8.00	EA		
1670-00-052-1548	PARACHUTE, CARGO, EXTRACTION, 15 FT UR	1.00	4.00	EA		
1670-00-090-5340	CLEVIS ASSEMBLY, G-11	6.00	24.00	EA		
1670-00-432-2501	SLING, SUSPENSION, 9 FT 4 LOOP TYPE XXVI	2.00	8.00	EA		
1670-00-432-2506	SLING, CARGO, 12 FT 4 LOOP TYPE XXVI (NYLON)	2.00	8.00	EA		
1670-00-753-3928	ENERGY PAD (SHEET)	37.00	148.00	SHEET		
1670-00-893-1631	CLEVIS, LOAD TIEDOWN	44.00	176.00	EA		
1670-00-937-0272	BINDER, LOAD (10,000 LB)	83.00	332.00	EA		
1670-00-937-0273	LASHING, DACRON, 15 FT 10,000 LB	9.00	36.00	EA		
1670-01-035-6054	BRIDLE, EXTRACTION LINE BAG	1.00	4.00	EA		
1670-01-036-0754	LINE, DROUGUE	1.00	4.00	EA		
1670-01-064-4454	LINE, EXTRACTION, 60 FT 6 LOOP TYPE XXVI	1.00	4.00	EA		
1670-01-072-1378	LINK, EXTRACTION, ASSEMBLY (H-BLOCK)	1.00	4.00	EA		
1670-01-162-2366	RAIL, 24 FT, TYPE V	2.00	8.00	EA		
1670-01-162-2372	CLEVIS ASSEMBLY, TYPE V (TIEDOWN CLEVIS)	44.00	176.00	EA		
1670-01-162-2381	TANDEM LINK ASSY (MULTI-PURPOSE)	4.00	16.00	EA		
1670-01-162-2385	NOSE BUMPER, TYPE V	1.00	4.00	EA		
1670-01-162-2388	ROLLER PAD, 24 FT, TYPE V	4.00	16.00	EA		
1670-01-168-8397	PANEL, MAIN, TYPE V	11.00	44.00	EA		
1670-01-168-8398	PANEL, REAR, TYPE V	1.00	4.00	EA		
1670-01-183-2678	PANEL, LINE, EXTRACTION	2.00	8.00	EA		
4020-00-240-2146	CORD, NYLON, TYPE III, 550 LB	1.00	4.00	EA		
4030-00-432-2516	CLEVIS, SUSPENSION WITH SCREW PIN AND SLEEVE	4.00	16.00	EA		
5315-00-164-5121	NAILS, 20D	1.00	4.00			
5365-00-007-3414	SPACER, LARGE	2.00	8.00	EA		
5365-00-937-0147	D-RING, HEAVY DUTY	97.00	388.00	EA		
5510-00-220-6248	LUMBER 2 X 10	3.00	12.00	EA		
5510-00-220-6448	LUMBER 2 X 6	1.00	4.00	EA		
5530-00-128-4981	PLYWOOD 3/4 X 48 X 96	2.00	8.00	SHEETS		
7510-00-266-5016	TAPE, PSA CLOTH, 2 IN	2.00	8.00	AS REQUIRED		
8040-00-273-8713	PASTE, ADHESIVE, 1 GAL	1.00	4.00	AS REQUIRED		
8135-00-160-7758	KRAFT PAPER	1.00	4.00	ROLL		
8135-00-664-6958	CUSHIONING MATERIAL, PACKAGING, CELLULOSE WAD	1.00	4.00	EA		
8305-00-082-5752	WEBBING, NYLON TUBULAR, WHITE 1/2 IN	1.00	4.00	AS REQUIRED		
8305-00-261-8584	WEBBING, NYLON, TYPE X	316.00	1264.00	AS REQUIRED		
8305-00-268-2411	WEBBING, COTTON, 1/4 IN 80 LB	1.00	4.00	AS REQUIRED		
8305-00-268-2455	WEBBING, NYLON, TUBULAR, 1 IN OD	1.00	4.00	AS REQUIRED		
8305-00-958-3685	FELT SHEET, 1/2 IN	2.00	8.00	AS REQUIRED		

----- END OF THIS LOAD

TABLE 3. Airdrop Mission Loads and Equipment Report (cont'd).

612th QM. CO.
AMEMS Ver.2.0

AIRDROP MISSION LOADS AND EQUIPMENT REPORT
SORTED BY LOAD ID NO. AND ITEM NSN

DATE : 09/14/88 (86258)
PAGE : 6

MISSION	MISSION DATE	STATUS	MILITARY UNIT	AUTHORIZATION
18TH FA AA	10/01/88 (86275)	PLANNED	18TH FA BDE	

QUAN.	MIL. DESIG.	LOAD ID	LOAD NAME	TYPE OF AIRDROP	AIRCRAFT	EXT.SYS.
4	M925	54	5 TON TRUCK	LVAD	C130	EFTC
ITEM NSN	ITEM DESCRIPTION	EACH LOAD	TOTAL QUAN.	UNIT	USAGE	
1670-00-040-8135	PARACHUTE, CARGO, EXTRACTION, 20 FT (HD)	2.00	8.00	EA		C130
1670-01-064-4454	LINE, EXTRACTION, 60 FT 6 LOOP TYPE XXVI	1.00	4.00	EA		C130
1670-00-434-5782	COUPLING, AIRDROP, EFTC, 35K, W/24 FT CABLE	1.00	4.00	EA		EFTC
1670-00-003-1953	LINK, 2 POINT, 3 3/4 IN	1.00	4.00			
1670-00-003-1954	LINK, 2 POINT, 5 1/2 IN	1.00	4.00			
1670-00-003-1956	LINE, EXTRACTION, 20 FT 4 LOOP TYPE XXVI	2.00	8.00	EA		
1670-00-006-2752	LINK ASSEMBLY, 4 POINT	2.00	8.00	EA		
1670-00-040-8219	STRAP, PARACHUTE RELEASE, MULTIPLE CUT	2.00	8.00	EA		
1670-00-360-0328	COVER, CLEVIS, LARGE	6.00	24.00	EA		
1670-00-360-0329	COVER, LINK	20.00	80.00	EA		
1670-00-400-2770	RELEASE, CARGO PARACHUTE, M-2	1.00	4.00	EA		
1670-00-432-2507	SLING, CARGO, AIRDROP, 16 FT 4 LOOP TYPE XXVI	2.00	8.00	EA		
1670-00-753-3928	ENERGY PAD (SHEET)	20.00	80.00	SHEET		
1670-00-783-5988	LINK ASSEMBLY, TYPE IV	20.00	80.00	EA		
1670-00-937-0271	TIEDOWN ASSEMBLY, 15 FT (DACRON) 10,000 LB	54.00	216.00	EA		
1670-00-937-0272	BINDER, LOAD (10,000 LB)	54.00	216.00	EA		
1670-01-016-7841	PARACHUTE, CARGO, 100 FT DIA, G-11B	6.00	24.00	EA		
1670-01-020-2013	BRACKET SUSP. (ST)	2.00	8.00	EA		
1670-01-062-6302	SLING, CARGO, AIRDROP, 20 FT 2 LOOP TYPE XXVI	28.00	112.00	EA		
1670-01-062-6305	SLING, CARGO, AIRDROP, 9 FT 4 LOOP TYPE XXVI	1.00	4.00	EA		
1670-01-062-6306	SLING, CARGO, AIRDROP, 3 FT 4 LOOP TYPE XXVI	2.00	8.00	EA		
1670-01-162-2366	RAIL, 24 FT, TYPE V	2.00	8.00	EA		
1670-01-162-2372	CLEVIS ASSEMBLY, TYPE V (TIEDOWN CLEVIS)	38.00	152.00	EA		
1670-01-162-2374	BRACKET, OUTSIDE EFTA	2.00	8.00	ea		
1670-01-162-2375	BRACKET, INSIDE EFTA	2.00	8.00	ea		
1670-01-162-2376	BRACKET ASSEMBLY, EXT	1.00	4.00	EA		
1670-01-162-2381	TANDEM LINK ASSY (MULTI-PURPOSE)	2.00	8.00	EA		
1670-01-162-2385	NOSE BUMPER, TYPE V	1.00	4.00	EA		
1670-01-162-2388	ROLLER PAD, 24 FT, TYPE V	4.00	16.00	EA		
1670-01-168-8397	PANEL, MAIN, TYPE V	11.00	44.00	EA		
1670-01-168-8398	PANEL, REAR, TYPE V	1.00	4.00	EA		
1670-01-183-2678	PANEL, LINE, EXTRACTION	2.00	8.00	EA		
1670-01-247-2389	ASSEMBLY, SUSPENSION LINK	4.00	16.00	EA		
4020-00-240-2146	CORD, NYLON, TYPE III, 550 LB	1.00	4.00	EA		
4030-00-090-5354	CLEVIS ASSEMBLY, LARGE	6.00	24.00	EA		
5315-00-010-4659	NAILS, 8D	1.00	4.00	AS REQUIRED		
5365-00-937-0147	D-RING, HEAVY DUTY	54.00	216.00	EA		
5510-00-220-6146	LUMBER 2 X 4 X 96	6.00	24.00	EA		
5510-00-220-6148	LUMBER 2 X 6	4.00	16.00	EA		
5510-00-220-6274	LUMBER 4 X 4	8.00	32.00	EA		
5530-00-128-4981	PLYWOOD 3/4 X 48 X 96	5.00	20.00	SHEETS		
7510-00-266-5816	TAPE, PSA CLOTH, 2 IN	2.00	8.00	AS REQUIRED		
8040-00-273-8713	PASTE, ADHESIVE, 1 GAL	1.00	4.00	AS REQUIRED		
8135-00-664-6958	CUSHIONING MATERIAL, PACKAGING, CELLULOSE WAD	1.00	4.00	EA		
8305-00-074-5124	TAPE, ADHESIVE, 2 IN	2.00	8.00	AS REQUIRED		

TABLE 3. Airdrop Mission Loads and Equipment Report (cont'd).

612th OM. CO.
AMEMS Ver. 2.0

AIRDROP MISSION LOADS AND EQUIPMENT REPORT
SORTED BY LOAD ID NO. AND ITEM NSN

DATE : 09/14/88 (88258)
PAGE : 7

MISSION	MISSION DATE	STATUS	MILITARY UNIT	AUTHORIZATION
18TH FA AA	18/01/88 (88275)	PLANNED	18TH FA BDE	

8305-00-082-5752	WEBBING, NYLON TUBULAR, WHITE 1/2 IN	1.00	4.00	AS REQUIRED
8305-00-242-3593	CLOTH, COTTON DUCK, 60 IN	1.00	4.00	AS REQUIRED
8305-00-263-3591	WEBBING, NYLON, TYPE VIII (RESTRAINT STRAP)	1.00	4.00	YARDS
8305-00-268-2411	WEBBING, COTTON, 1/4 IN 80 LS	1.00	4.00	AS REQUIRED
8305-00-958-3685	FELT SHEET, 1/2 IN	5.00	20.00	AS REQUIRED

----- END OF THIS LOAD

TABLE 3. Airdrop Mission Loads and Equipment Report (cont'd).

612th OM. CO.
AMEPS Ver.2.0

AIRDROP MISSION LOADS AND EQUIPMENT REPORT
SORTED BY LOAD ID NO. AND ITEM NSN

DATE : 09/14/88 (88258)
PAGE : 8

MISSION	MISSION DATE	STATUS	MILITARY UNIT	AUTHORIZATION
18TH FA AA	18/01/88 (88275)	PLANNED	18TH FA BDE	

QUAN.	MIL. DESIG.	LOAD ID	LOAD NAME	TYPE OF AIRDROP	AIRCRAFT	EXT.SYS.
4	M925	55	5 TON TRUCK	LAPES	C130	LAPES
ITEM NSN	ITEM DESCRIPTION	EACH LOAD	TOTAL QUAN.	UNIT	USAGE	
1670-00-003-1953	LINK, 2 POINT, 3 3/4 IN	1.00	4.00			
1670-00-003-1954	LINK, 2 POINT, 5 1/2 IN	1.00	4.00			
1670-00-003-1956	LINE, EXTRACTION, 28 FT 4 LOOP TYPE XXVI	2.00	8.00	EA		
1670-00-003-1958	LINE, EXTRACTION, 28 FT 4 LOOP TYPE XXVI	1.00	4.00			
1670-00-003-4389	BAR, ATTITUDE CONTROL	1.00	4.00	EA		
1670-00-006-2752	LINK ASSEMBLY, 4 POINT	1.00	4.00	EA		
1670-00-040-8135	PARACHUTE, CARGO, EXTRACTION, 28 FT (HD)	2.00	8.00	EA		
1670-00-052-1548	PARACHUTE, CARGO, EXTRACTION, 15 FT UR	1.00	4.00	EA		
1670-00-360-0328	COVER, CLEVIS, LARGE	6.00	24.00	EA		
1670-00-432-2507	SLING, CARGO, AIRDROP, 16 FT 4 LOOP TYPE XXVI	2.00	8.00	EA		
1670-00-753-3928	ENERGY PAD (SHEET)	20.00	80.00	SHEET		
1670-00-937-0271	TIEDOWN ASSEMBLY, 15 FT (DACRON) 10,000 LB	38.00	152.00	EA		
1670-00-937-0272	BINDER, LOAD (10,000 LB)	38.00	152.00	EA		
1670-01-020-2013	BRACKET SUSP. (ST)	2.00	8.00	EA		
1670-01-035-6054	BRIDLE, EXTRACTION LINE BAG	1.00	4.00	EA		
1670-01-036-0754	LINE, DROUGUE	1.00	4.00	EA		
1670-01-064-4452	LINE, EXTRACTION, 60 FT 1 LOOP TYPE XXVI	1.00	4.00	EA		
1670-01-162-2366	RAIL, 24 FT, TYPE V	2.00	8.00	EA		
1670-01-162-2372	CLEVIS ASSEMBLY, TYPE V (TIEDOWN CLEVIS)	38.00	152.00	EA		
1670-01-162-2381	TANDEM LINK ASSY (MULTI-PURPOSE)	4.00	16.00	EA		
1670-01-162-2385	NOSE BUMPER, TYPE V	1.00	4.00	EA		
1670-01-162-2388	ROLLER PAD, 24 FT, TYPE V	4.00	16.00	EA		
1670-01-168-8397	PANEL, MAIN, TYPE V	11.00	44.00	EA		
1670-01-168-8398	PANEL, REAR, TYPE V	1.00	4.00	EA		
1670-01-183-2678	PANEL, LINE, EXTRACTION	2.00	8.00	EA		
4020-00-240-2146	CORD, NYLON, TYPE III, 550 LB	1.00	4.00	EA		
4030-00-090-5354	CLEVIS ASSEMBLY, LARGE	6.00	24.00	EA		
5365-00-937-0147	D-RING, HEAVY DUTY	38.00	152.00	EA		
5510-00-220-6146	LUMBER 2 X 4 X 96	10.00	40.00	EA		
5510-00-220-6148	LUMBER 2 X 6	5.00	20.00	EA		
5510-00-220-6274	LUMBER 4 X 4	15.00	60.00	EA		
5530-00-128-4981	PLYWOOD 3/4 X 48 X 96	15.00	60.00	SHEETS		
7510-00-266-5016	TAPE, PSA CLOTH, 2 IN	2.00	8.00	AS REQUIRED		
8040-00-273-0713	PASTE, ADHESIVE, 1 GAL	2.00	8.00	AS REQUIRED		
8135-00-664-6958	CUSHIONING MATERIAL, PACKAGING, CELLULOSE WAD	1.00	4.00	EA		
8305-00-074-5124	TAPE, ADHESIVE, 2 IN	2.00	8.00	AS REQUIRED		
8305-00-082-5752	WEBBING, NYLON TUBULAR, WHITE 1/2 IN	2.00	8.00	AS REQUIRED		
8305-00-242-3593	CLOTH, COTTON DUCK, 60 IN	1.00	4.00	AS REQUIRED		
8305-00-958-3605	FELT SHEET, 1/2 IN	2.00	8.00	AS REQUIRED		

----- END OF THIS LOAD

TABLE 3. Airdrop Mission Loads and Equipment Report (cont'd).

MISSION LOADS REPORT SUMMARY

TOTAL : 40 LOAD(S) MADE UP OF 6 LOAD TYPE(S) SPECIFIED.

=====

=====

----- END OF REPORT -----

TABLE 4. Airdrop Mission Equipment Total Report.

612th OM. CO.
AMENS Ver.2.0

AIRDROP MISSION EQUIPMENT TOTAL REPORT

DATE : 09/14/88 (88258)
PAGE : 1

SORTED BY : NSN

MISSION	MISSION DATE	STATUS	MILITARY UNIT	AUTHORIZATION			
18TH FA AA	10/01/88 (88275)	PLANNED	18TH FA BDE				
ITEM NSN	ITEM DESCRIPTION	QUAN.	COST	ON HAND	BALANCE	ORDER	LOCATION
1670-00-003-1953	LINK, 2 POINT, 3 3/4 IN	12.00	\$66.48	22.00	10.00		6.9A
1670-00-003-1954	LINK, 2 POINT, 5 1/2 IN	8.00	\$45.20	100.00	92.00		6.9A
1670-00-003-1956	LINE, EXTRACTION, 20 FT 4 LOOP TYPE XXVI	24.00	\$1,595.20	253.00	229.00		5.7B
1670-00-003-1958	LINE, EXTRACTION, 28 FT 4 LOOP TYPE XXVI	4.00	\$346.52		0.00		
1670-00-003-4389	BAR, ATTITUDE CONTROL	4.00	\$270.40	31.00	27.00		BACKYARD
1670-00-003-4391	KNIFE PARACHUTE BAG	8.00	\$16.00	75.00	67.00		aisle 8 A-5
1670-00-006-2752	LINK ASSEMBLY, 4 POINT	16.00	\$1,311.20	65.00	49.00		6.9A
1670-00-040-8135	PARACHUTE, CARGO, EXTRACTION, 20 FT (HD)	28.00	\$21,000.00	115.00	87.00		T.O.E. AISLE
1670-00-040-8219	STRAP, PARACHUTE RELEASE, MULTIPLE CUT	32.00	\$1,583.36	119.00	87.00		7.12A
1670-00-052-1548	PARACHUTE, CARGO, EXTRACTION, 15 FT UR	8.00	\$1,584.00	146.00	138.00		T.O.F. AISLE
1670-00-090-5340	CLEVIS ASSEMBLY, G-11	24.00			0.00		
1670-00-168-6070	RELEASE, CARGO PARACHUTE, M-1	8.00	\$3,520.00	156.00	148.00		EXT. ROOM
1670-00-216-7297	PARACHUTE, PILOT, 68 IN	16.00	\$532.16	320.00	304.00		6.3C
1670-00-269-1107	PARACHUTE, CARGO, 100 FT DIA, G-11A	44.00	\$55,704.00	439.00	395.00		T.O.E. AISLE
1670-00-360-0328	COVER, CLEVIS, LARGE	92.00	\$734.16	500.00	408.00		6.13B
1670-00-360-0329	COVER, LINK	168.00	\$283.92	1327.00	1159.00		6.13B
1670-00-400-2770	RELEASE, CARGO PARACHUTE, M-2	8.00	\$12,544.00	58.00	50.00		EXT. ROOM
1670-00-432-2501	SLING, SUSPENSION, 9 FT 4 LOOP TYPE XXVI	8.00	\$275.68	294.00	286.00		5.12A & B
1670-00-432-2505	SLING, SUSPENSION, 11 FT 4 LOOP TYPE XXVI	8.00	\$280.40	68.00	60.00		5.11A
1670-00-432-2506	SLING, CARGO, 12 FT 4 LOOP TYPE XXVI (NYLON)	8.00	\$438.48	233.00	225.00		5.14B
1670-00-432-2507	SLING, CARGO, AIRDROP, 16 FT 4 LOOP TYPE XXVI	16.00	\$750.88	275.00	259.00		5.11
1670-00-434-5782	COUPLING, AIRDROP, EFTC, 35K, W/24 FT CABLE	4.00	\$3,496.00	28.00	24.00		EXT. ROOM
1670-00-434-5785	COUPLING, AIRDROP, EFTC, 35K, W/16 FT CABLE	8.00	\$6,304.00	16.00	8.00		EXT. ROOM
1670-00-434-5787	COUPLING, AIRDROP, EFTC, 35K, W/20 FT CABLE	4.00	\$3,724.00	13.00	9.00		EXT. ROOM
1670-00-568-0323	BAND, RETAINER	8.00	\$4.72	656.00	648.00		7.12C
1670-00-587-3421	BAG, CARGO, AIRDROP, TYPE A-22	16.00	\$3,872.00	78.00	62.00		7.8A
1670-00-687-5451	PARACHUTE, CARGO, EXTRACTION, 22 FT	8.00		95.00	87.00		T.O.E. AISLE
1670-00-753-3794	SLING, CARGO, AIRDROP, 20 FT 2 LOOP TYPE X	80.00	\$3,242.40	331.00	251.00		5.9C
1670-00-753-3928	ENERGY PAD (SHEET)	596.00	\$3,653.40		0.00		BACKYARD
1670-00-783-5988	LINK ASSEMBLY, TYPE IV	164.00	\$3,079.92	271.00	107.00		6.11A
1670-00-823-5041	SLING, CARGO, AIRDROP, 12 FT 3 LOOP TYPE X	4.00	\$107.32	68.00	64.00		5.11C
1670-00-883-1654	SKID CAR, A-22 PLATFORM	16.00	\$450.24	1939.00	1923.00		5.14A
1670-00-893-1631	CLEVIS, LOAD TIEDOWN	336.00	\$876.96	2475.00	2139.00		6.12A
1670-00-893-2371	PARACHUTE, CARGO, G-12D	16.00	\$23,840.00	240.00	224.00		T.O.E. AISLE
1670-00-937-0271	TIEDOWN ASSEMBLY, 15 FT (DACRON) 10,000 LB	664.00	\$9,196.40	228.00	0.00	436.00	7.15C
1670-00-937-0272	BINDER, LOAD (10,000 LB)	700.00		6000.00	5300.00		6.15A
1670-00-937-0273	LASHING, DACRON, 15 FT 10,000 LB	320.00	\$1,724.80	836.00	516.00		6.13A
1670-00-998-5116	STRAP, PARACHUTE RELEASE W/FASTENER & KNIFE	8.00		2.00	0.00	6.00	7.13B
1670-01-016-7841	PARACHUTE, CARGO, 100 FT DIA, G-11B	24.00	\$81,216.00		0.00		T.O.E. AISLE
1670-01-020-2013	BRACKET SUSP. (ST)	16.00	\$924.32	24.00	0.00		7.10A
1670-01-035-6054	BRIDLE, EXTRACTION LINE BAG	8.00	\$471.44	43.00	35.00		7.13B
1670-01-036-0754	LINE, DROUGUE	8.00		30.00	22.00		7.13B
1670-01-062-6302	SLING, CARGO, AIRDROP, 20 FT 2 LOOP TYPE XXVI	160.00	\$6,484.80		0.00		5.8A
1670-01-062-6304	SLING, CARGO, AIRDROP, 9 FT 2 LOOP TYPE XXVI	8.00	\$164.80	144.00	136.00		5.13B
1670-01-062-6305	SLING, CARGO, AIRDROP, 9 FT 4 LOOP TYPE XXVI	12.00	\$413.52	224.00	212.00		5.12A
1670-01-062-6306	SLING, CARGO, AIRDROP, 3 FT 4 LOOP TYPE XXVI	12.00	\$206.16	267.00	255.00		5.14C
1670-01-062-6308	LINE, MULTI-LOOP, 16 FT	8.00	\$375.44	138.00	130.00		5.9B
1670-01-062-6313	LINE, EXTRACTION, 60 FT 3 LOOP TYPE XXVI	12.00	\$1,608.00	208.00	196.00		5.6A,B,C
1670-01-063-7761	SLING, CARGO, AIRDROP, 16 FT 2 LOOP TYPE XXVI	32.00	\$965.76	307.00	275.00		5.10B,C

TABLE 4. Airdrop Mission Equipment Total Report (cont'd).

612th OM. CO.
ANEMS Ver.2.0

AIRDROP MISSION EQUIPMENT TOTAL REPORT

DATE : 09/14/88 (88258)

PAGE : 2

SORTED BY : NSN

MISSION	MISSION DATE	STATUS	MILITARY UNIT	AUTHORIZATION		
18TH FA AA	18/01/88 (88275)	PLANNED	18TH FA BDE			
ITEM NSN	ITEM DESCRIPTION	QUAN.	COST	ON HAND	BALANCE	ORDER LOCATION
1670-01-064-4452	LINE, EXTRACTION, 60 FT 1 LOOP TYPE XKVI	4.00	\$210.68	174.00	170.00	5.2B
1670-01-064-4454	LINE, EXTRACTION, 60 FT 6 LOOP TYPE XKVI	8.00	\$1,856.00	45.00	37.00	5.5B,C
1670-01-072-1378	LINK, EXTRACTION, ASSEMBLY (H-BLOCK)	4.00	\$408.32	48.00	44.00	7.10A
1670-01-162-2366	RAIL, 24 FT, TYPE V	32.00	\$10,624.00	32.00	0.00 *	BACKYARD
1670-01-162-2369	RAIL, 16 FT, TYPE V	16.00	\$3,728.00	50.00	34.00	BACKYARD
1670-01-162-2372	CLEVIS ASSEMBLY, TYPE V (TIEDOWN CLEVIS)	696.00	\$2,630.88	5000.00	4304.00	
1670-01-162-2374	BRACKET, OUTSIDE EFTA	20.00	\$97.80		0.00 *	
1670-01-162-2375	BRACKET, INSIDE EFTA	20.00	\$100.40		0.00 *	
1670-01-162-2376	BRACKET ASSEMBLY, EXT	16.00	\$709.60		0.00 *	
1670-01-162-2381	TANDEM LINK ASSY (MULTI-PURPOSE)	80.00	\$5,642.56		0.00 *	
1670-01-162-2382	ROLLER PAD, 16 FT, TYPE V	32.00	\$5,808.00	100.00	68.00	BACKYARD
1670-01-162-2385	NOSE BUMPER, TYPE V	24.00	\$1,533.12	67.00	43.00	BACKYARD
1670-01-162-2388	ROLLER PAD, 24 FT, TYPE V	64.00	\$16,448.00	52.00	0.00 *	12.00 BACKYARD
1670-01-168-8397	PANEL, MAIN, TYPE V	232.00	\$72,384.00	610.00	378.00	BACKYARD
1670-01-168-8398	PANEL, REAR, TYPE V	24.00	\$8,256.00	67.00	43.00	BACKYARD
1670-01-183-2678	PANEL, LINE, EXTRACTION	48.00	\$1,602.72	100.00	52.00	7.78C
1670-01-247-2389	ASSEMBLY, SUSPENSION LINK	16.00			0.00 *	
4020-00-240-2146	CORD, NYLON, TYPE III, 550 LB	40.00	\$1,666.00	143.00	103.00	BACKVALL
4030-00-090-5354	CLEVIS ASSEMBLY, LARGE	128.00	\$1,672.96		0.00 *	6.14A
4030-00-432-2516	CLEVIS, SUSPENSION WITH SCREW PIN AND SLEEVE	32.00	\$842.24	40.00	8.00	6.9A
4030-00-678-8526	CLEVIS, MEDIUM	16.00			0.00 *	6.14A
4030-00-678-8562	CLEVIS, SUSPENSION, CARGO	48.00	\$347.52	205.00	157.00	6.14A
5315-00-010-4659	NAILS, 8D	8.00	\$150.56		0.00 *	
5315-00-164-5121	NAILS, 20D	4.00			0.00 *	
5365-00-007-3414	SPACER, LARGE	8.00	\$12.24		0.00 *	
5365-00-937-0147	D-RING, HEAVY DUTY	756.00	\$1,164.24	2784.00	2028.00	6.12A
5510-00-220-6146	LUMBER 2 X 4 X 96	64.00	\$20.48	103.00	39.00	BACKYARD
5510-00-220-6148	LUMBER 2 X 6	76.00	\$24.32	130.00	54.00	BACKYARD
5510-00-220-6248	LUMBER 2 X 10	32.00	\$8.32	33.00	1.00	BACKYARD
5510-00-220-6274	LUMBER 4 X 4	92.00	\$29.44		0.00 *	BACKYARD
5510-00-220-6448	LUMBER 2 X 6	4.00			0.00 *	
5530-00-128-4981	PLYWOOD 3/4 X 48 X 96	140.00	\$1,951.60	129.00	0.00 *	11.00 BACKYARD
7510-00-266-5016	TAPE, PSA CLOTH, 2 IN	56.00	\$161.84	112.00	56.00	7.12C
8040-00-273-8713	PASTE, ADHESIVE, 1 GAL	28.00	\$124.60	452.00	424.00	BACKVALL
8135-00-160-7758	KRAFT PAPER	4.00			0.00 *	STORAGE AREA
8135-00-664-6958	CUSHIONING MATERIAL, PACKAGING, CELLULOSE WAD	24.00	\$492.00	150.00	126.00	
8305-00-074-5124	TAPE, ADHESIVE, 2 IN	40.00			0.00 *	
8305-00-082-5752	WEBBING, NYLON TUBULAR, WHITE 1/2 IN	44.00	\$4.40	5045.00	5001.00	7.3A & 7.3C
8305-00-177-5069	WEB, NYLON, NAT TYPE XXVI	16.00	\$12.00		0.00 *	7.5A & 7.5C
8305-00-242-3593	CLOTH, COTTON DUCK, 60 IN	76.00	\$516.80	9.00	0.00 *	67.00 6.3B
8305-00-261-8584	WEBBING, NYLON, TYPE X	1264.00	\$632.00	1600.00	336.00	7.2A & B
8305-00-263-3591	WEBBING, NYLON, TYPE VIII (RESTRAINT STRAP)	16.00	\$4.00	501.00	485.00	G-7
8305-00-268-2411	WEBBING, COTTON, 1/4 IN 80 LB	36.00	\$1.80	78.00	42.00	7.5B
8305-00-268-2455	WEBBING, NYLON, TUBULAR, 1 IN OD	4.00	\$1.20	2100.00	2096.00	7.4A
8305-00-958-3685	FELT SHEET, 1/2 IN	68.00	\$374.00	45.00	0.00 *	23.00 6.13B
8310-00-917-3942	THREAD, COTTON TICKET, #5 OD GLAZED	16.00	\$160.00	75.00	59.00	7.4A

TABLE 4. Airdrop Mission Equipment Total Report (cont'd).

TOTAL EQUIPMENT COST :		\$481,779.32
RIG	COST :	\$18,456.84
DROP	COST :	\$49,588.37

----- END OF REPORT ----- 95 ITEM(S) LISTED

TABLE 5. Airdrop Mission Equipment Total Issue Report.

612th OM. CO.
AMENS Ver.2.0

AIRDROP MISSION EQUIPMENT TOTAL ISSUE REPORT

DATE : 09/14/88 (88258)
PAGE : 1

SORTED BY : LOCATION

MISSION	MISSION DATE	STATUS	MILITARY UNIT	AUTHORIZATION
18TH FA AA	10/01/88 (88275)	PLANNED	18TH FA BDE	

ITEM NSN	ITEM DESCRIPTION	QUAN. REQ.	UNIT	QUAN. ISSUED	LOCATION
1670-01-063-7761	SLING, CARGO, AIRDROP, 16 FT 2 LOOP TYPE XXVI	32.00	EA		5.10B,C
1670-00-432-2507	SLING, CARGO, AIRDROP, 16 FT 4 LOOP TYPE XXVI	16.00	EA		5.11
1670-00-432-2505	SLING, SUSPENSION, 11 FT 4 LOOP TYPE XXVI	8.00	EA		5.11A
1670-00-823-5041	SLING, CARGO, AIRDROP, 12 FT 3 LOOP TYPE X	4.00	EA		5.11C
1670-01-062-6305	SLING, CARGO, AIRDROP, 9 FT 4 LOOP TYPE XXVI	12.00	EA		5.12A
1670-00-432-2501	SLING, SUSPENSION, 9 FT 4 LOOP TYPE XXVI	8.00	EA		5.12A & B
1670-01-062-6304	SLING, CARGO, AIRDROP, 9 FT 2 LOOP TYPE XXVI	8.00	EA		5.13B
1670-00-883-1654	SKID CAR, A-22 PLATFORM	16.00	EA		5.14A
1670-00-432-2506	SLING, CARGO, 12 FT 4 LOOP TYPE XXVI (NYLON)	8.00	EA		5.14B
1670-01-062-6306	SLING, CARGO, AIRDROP, 3 FT 4 LOOP TYPE XXVI	12.00	EA		5.14C
1670-01-064-4452	LINE, EXTRACTION, 60 FT 1 LOOP TYPE XXVI	4.00	EA		5.2B
1670-01-064-4454	LINE, EXTRACTION, 60 FT 6 LOOP TYPE XXVI	8.00	EA		5.5B,C
1670-01-062-6313	LINE, EXTRACTION, 60 FT 3 LOOP TYPE XXVI	12.00	EA		5.6A,B,C
1670-00-003-1956	LINE, EXTRACTION, 20 FT 4 LOOP TYPE XXVI	24.00	EA		5.7B
1670-01-062-6302	SLING, CARGO, AIRDROP, 20 FT 2 LOOP TYPE XXVI	160.00	EA		5.8A
1670-01-062-6308	LINE, MULTI-LOOP, 16 FT	8.00	EA		5.9B
1670-00-753-3794	SLING, CARGO, AIRDROP, 20 FT 2 LOOP TYPE X	80.00	EA		5.9C
1670-00-783-5988	LINK ASSEMBLY, TYPE IV	164.00	EA		6.11A
5365-00-937-0147	D-RING, HEAVY DUTY	756.00	EA		6.12A
1670-00-893-1631	CLEVIS, LOAD TIEDOWN	336.00	EA		6.12A
1670-00-937-0273	LASHING, DACRON, 15 FT 10,000 LB	320.00	EA		6.13A
1670-00-360-0329	COVER, LINK	168.00	EA		6.13B
8305-00-958-3665	FELT SHEET, 1/2 IN	66.00	AS REQUIRED		6.13B
1670-00-360-0323	COVER, CLEVIS, LARGE	92.00	EA		6.13B
4030-00-678-5561	CLEVIS, SUSPENSION, CARGO	40.00	EA		6.14A
4030-00-678-5526	CLEVIS, MEDIUM	16.00	EA		6.14A
4030-00-090-5354	CLEVIS ASSEMBLY, LARGE	128.00	EA		6.14A
1670-00-937-0272	BINDER, LOAD (10,000 LB)	700.00	EA		6.15A
8305-00-242-3593	CLOTH, COTTON DUCK, 60 IN	76.00	AS REQUIRED		6.3B
1670-00-216-7297	PARACHUTE, PILOT, 60 IN	16.00	EA		6.3C
1670-00-006-2752	LINK ASSEMBLY, 4 POINT	16.00	EA		6.9A
4030-00-432-2516	CLEVIS, SUSPENSION WITH SCREW PIN AND SLEEVE	32.00	EA		6.9A
1670-00-003-1954	LINK, 2 POINT, 5 1/2 IN	8.00			6.9A
1670-00-003-1953	LINK, 2 POINT, 3 3/4 IN	12.00			6.9A
1670-01-072-1378	LINK, EXTRACTION, ASSEMBLY (H-BLOCK)	4.00	EA		7.10A
1670-01-020-2013	BRACKET SUSP. (5T)	16.00	EA		7.10A
1670-00-040-8219	STRAP, PARACHUTE RELEASE, MULTIPLE CUT	32.00	EA		7.12A
1670-00-568-0323	BAND, RETAINER	8.00	BOX		7.12C
8040-00-273-8713	PASTE, ADHESIVE, 1 GAL	28.00	AS REQUIRED		7.12C
1670-00-990-5116	STRAP, PARACHUTE RELEASE W/FASTENER & KNIFE	8.00	EA		7.13B
1670-01-036-0754	LINE, DROUGUE	8.00	EA		7.13B
1670-01-035-0054	BRIDLE, EXTRACTION LINE BAG	9.00	EA		7.13B
1670-00-937-0271	TIEDOWN ASSEMBLY, 15 FT (DACRON) 10,000 LB	664.00	EA		7.15C
8305-00-261-0584	WEBBING, NYLON, TYPE X	1254.00	AS REQUIRED		7.2A 6B
8305-00-002-5752	WEBBING, NYLON TUBULAR, WHITE 1/2 IN	44.00	AS REQUIRED		7.3A 57.3C

VERIFIED BY : _____ ISSUED BY : _____ RECEIVED BY : _____

TABLE 5. Airdrop Mission Equipment Total Issue Report (cont'd).

612th QM. CO.
ANEMS Ver.2.0

AIRDROP MISSION EQUIPMENT TOTAL ISSUE REPORT

DATE : 09/14/88 (88258)
PAGE : 2

SORTED BY : LOCATION

MISSION	MISSION DATE	STATUS	MILITARY UNIT	AUTHORIZATION	
18TH FA AA	10/01/88 (88275)	PLANNED	18TH FA BDE		
ITEM NSN	ITEM DESCRIPTION	QUAN. REQ.	UNIT	QUAN. ISSUED	LOCATION
8305-00-268-2455	WEBBING, NYLON, TUBULAR, 1 IN OD	4.00	AS REQUIRED		7.4A
8305-00-177-5069	WEB, NYLON, NAT TYPE XXVI	16.00	AS REQUIRED		7.5A& 7.5C
8305-00-268-2411	WEBBING, COTTON, 1/4 IN 80 LB	36.00	AS REQUIRED		7.5B
1670-01-183-2678	PANEL, LINE, EXTRACTION	48.00	EA		7.7BC
1670-00-587-3421	BAG, CARGO, AIRDROP, TYPE A-22	16.00	EA		7.8A
1670-00-003-4391	KNIFE PARACHUTE BAG	8.00	EA		aisle 8 A-5
7510-00-266-5016	TAPE, PSA CLOTH, 2 IN	56.00	AS REQUIRED		aisle 8 A-6
8310-00-917-3942	THREAD, COTTON TICKET, #5 OD GLAZED	16.00			aisle 8 F-6
4020-00-240-2146	CORD, NYLON, TYPE III, 550 LB	40.00	EA		BACKWALL
8135-00-160-7758	KRAFT PAPER	4.00	ROLL		BACKWALL
5510-00-220-6146	LUMBER 2 X 4 X 96	64.00	EA		BACKYARD
1670-01-162-2366	RAIL, 24 FT, TYPE V	32.00	EA		BACKYARD
5510-00-220-6148	LUMBER 2 X 6	76.00	EA		BACKYARD
1670-01-160-8397	PANEL, MAIN, TYPE V	232.00	EA		BACKYARD
1670-01-160-8398	PANEL, REAR, TYPE V	24.00	EA		BACKYARD
1670-01-162-2388	ROLLER PAD, 24 FT, TYPE V	64.00	EA		BACKYARD
1670-01-162-2369	RAIL, 16 FT, TYPE V	16.00	EA		BACKYARD
1670-01-162-2385	NOSE BUMPER, TYPE V	24.00	EA		BACKYARD
5510-00-220-6274	LUMBER 4 X 4	92.00	EA		BACKYARD
5530-00-128-4981	PLYWOOD 3/4 X 48 X 96	140.00	SHEETS		BACKYARD
1670-00-003-4389	BAR, ATTITUDE CONTROL	4.00	EA		BACKYARD
1670-00-753-3928	ENERGY PAD (SHEET)	596.00	SHEET		BACKYARD
5510-00-220-6248	LUMBER 2 X 10	32.00	EA		BACKYARD
1670-01-162-2382	ROLLER PAD, 16 FT, TYPE V	32.00	EA		BACKYARD
1670-00-434-5782	COUPLING, AIRDROP, EFTC, 35K, W/24 FT CABLE	4.00	EA		EXT. ROOM
1670-00-434-5785	COUPLING, AIRDROP, EFTC, 35K, W/16 FT CABLE	8.00	EA		EXT. ROOM
1670-00-400-2770	RELEASE, CARGO PARACHUTE, M-2	8.00	EA		EXT. ROOM
1670-00-434-5787	COUPLING, AIRDROP, EFTC, 35K, W/20 FT CABLE	4.00	EA		EXT. ROOM
1670-00-168-6070	RELEASE, CARGO PARACHUTE, M-1	8.00	EA		EXT. ROOM
8305-00-263-3591	WEBBING, NYLON, TYPE VIII (RESTRAINT STRAP)	16.00	YARDS		G-7
8135-00-564-6958	CUSHIONING MATERIAL, PACKAGING, CELLULOSE WAD	24.00	EA		STORAGE AREA
1670-01-016-7641	PARACHUTE, CARGO, 100 FT DIA, G-11B	24.00	EA		T.O.E. AISLE
1670-00-269-1107	PARACHUTE, CARGO, 100 FT DIA, G-11A	44.00	EA		T.O.E. AISLE
1670-00-040-8135	PARACHUTE, CARGO, EXTRACTION, 28 FT (HD)	28.00	EA		T.O.E. AISLE
1670-00-052-1548	PARACHUTE, CARGO, EXTRACTION, 15 FT UR	8.00	EA		T.O.E. AISLE
1670-00-893-2371	PARACHUTE, CARGO, G-12D	16.00	EA		T.O.E. AISLE
1670-00-687-5451	PARACHUTE, CARGO, EXTRACTION, 22 FT	8.00	EA		T.O.E. AISLE
5315-00-010-4659	NAILS, 8D	8.00	AS REQUIRED		
1670-00-090-5340	CLEVIS ASSEMBLY, G-11	24.00	EA		
8305-00-074-5124	TAPE, ADHESIVE, 2 IN	40.00	AS REQUIRED		
1670-00-003-1958	LINE, EXTRACTION, 28 FT 4 LOOP TYPE XXVI	4.00			
5365-00-007-3414	SPACER, LARGE	8.00	EA		
1670-01-162-2375	BRACKET, INSIDE EFTA	20.00	ea		
1670-01-161-2374	BRACKET, OUTSIDE EFTA	20.00	ea		
1670-01-162-2372	CLEVIS ASSEMBLY, TYPE V (TIEDOWN CLEVIS)	696.00	EA		

VERIFIED BY : _____ ISSUED BY : _____ RECEIVED BY : _____

TABLE 5. Airdrop Mission Equipment Total Issue Report (cont'd).

612th OM. CO.
AMENS Ver.2.0

AIRDROP MISSION EQUIPMENT TOTAL ISSUE REPORT

DATE : 09/14/88 (88258)
PAGE : 3

SORTED BY : LOCATION

MISSION	MISSION DATE	STATUS	MILITARY UNIT	AUTHORIZATION
18TH FA AA	10/01/88 (88275)	PLANNED	18TH FA BDE	

ITEM NSN	ITEM DESCRIPTION	QUAN. REQ.	UNIT	QUAN. ISSUED	LOCATION
1670-01-162-2381	TANDEM LINK ASSY (MULTI-PURPOSE)	88.00	EA		
1670-01-162-2376	BRACKET ASSEMBLY, EXT	16.00	EA		
5510-00-220-6448	LUMBER 2 X 6	4.00	EA		
5315-00-164-5121	AILS, 20D	4.00			
1670-01-247-2389	ASSEMBLY, SUSPENSION LINK	16.00	EA		

VERIFIED BY : _____ ISSUED BY : _____ RECEIVED BY : _____

----- END OF REPORT ----- 95 ITEM(S) LISTED

TABLE 6. Airdrop Mission Equipment Total Hand Receipt.

612th OM. CO.
AMEMS Ver.2.0

AIRDROP MISSION EQUIPMENT TOTAL HAND RECEIPT

DATE : 09/14/88 (08258)
PAGE : 1

SORTED BY : ITEM NSN

MISSION	MISSION DATE	STATUS	MILITARY UNIT	AUTHORIZATION					
18TH FA AA	10/01/88 (08275)	PLANNED	18TH FA BDE						
ITEM NSN	ITEM DESCRIPTION	QUANTITY ISSUED	UNIT	QUANTITY					
				A	B	C	D	E	
1670-00-003-1953	LINK, 2 POINT, 3 3/4 IN	12.							
1670-00-003-1954	LINK, 2 POINT, 5 1/2 IN	8.							
1670-00-003-1956	LINE, EXTRACTION, 20 FT 4 LOOP TYPE XXVI	24.	EA						
1670-00-003-1958	LINE, EXTRACTION, 20 FT 4 LOOP TYPE XXVI	4.							
1670-00-003-4389	BAR, ATTITUDE CONTROL	4.	EA						
1670-00-003-4391	KNIFE PARACHUTE BAG	8.	EA						
1670-00-006-2752	LINK ASSEMBLY, 4 POINT	16.	EA						
1670-00-040-8135	PARACHUTE, CARGO, EXTRACTION, 20 FT (HD)	20.	EA						
1670-00-040-8219	STRAP, PARACHUTE RELEASE, MULTIPLE CUT	32.	EA						
1670-00-052-1548	PARACHUTE, CARGO, EXTRACTION, 15 FT UR	8.	EA						
1670-00-090-5340	CLEVIS ASSEMBLY, G-11	24.	EA						
1670-00-168-6070	RELEASE, CARGO PARACHUTE, M-1	8.	EA						
1670-00-216-7297	PARACHUTE, PILOT, 68 IN	16.	EA						
1670-00-269-1107	PARACHUTE, CARGO, 100 FT DIA, G-11A	44.	EA						
1670-00-360-0328	COVER, CLEVIS, LARGE	92.	EA						
1670-00-360-0329	COVER, LINK	168.	EA						
1670-00-400-2770	RELEASE, CARGO PARACHUTE, M-2	8.	EA						
1670-00-432-2501	SLING, SUSPENSION, 9 FT 4 LOOP TYPE XXVI	8.	EA						
1670-00-432-2505	SLING, SUSPENSION, 11 FT 4 LOOP TYPE XXVI	8.	EA						
1670-00-432-2506	SLING, CARGO, 12 FT 4 LOOP TYPE XXVI (NYLON)	8.	EA						
1670-00-432-2507	SLING, CARGO, AIRDROP, 16 FT 4 LOOP TYPE XXVI	16.	EA						
1670-00-434-5782	COUPLING, AIRDROP, EFTC, 35K, W/24 FT CABLE	4.	EA						
1670-00-434-5785	COUPLING, AIRDROP, EFTC, 35K, W/16 FT CABLE	8.	EA						
1670-00-434-5787	COUPLING, AIRDROP, EFTC, 35K, W/20 FT CABLE	4.	EA						
1670-00-507-3421	BAG, CARGO, AIRDROP, TYPE A-22	16.	EA						
1670-00-667-5451	PARACHUTE, CARGO, EXTRACTION, 22 FT	8.	EA						
1670-00-753-3794	SLING, CARGO, AIRDROP, 20 FT 2 LOOP TYPE X	80.	EA						
1670-00-783-5988	LINK ASSEMBLY, TYPE IV	164.	EA						
1670-00-823-5041	SLING, CARGO, AIRDROP, 12 FT 3 LOOP TYPE X	4.	EA						
1670-00-893-1631	CLEVIS, LOAD TIEDOWN	336.	EA						
1670-00-893-2371	PARACHUTE, CARGO, G-12D	16.	EA						
1670-00-937-0271	TIEDOWN ASSEMBLY, 15 FT (DACRON) 10,000 LB	664.	EA						
1670-00-937-0272	BINDER, LOAD (10,000 LB)	700.	EA						
1670-00-937-0273	LASHING, DACRON, 15 FT 10,000 LB	320.	EA						
1670-00-998-5116	STRAP, PARACHUTE RELEASE W/FASTENER & KNIFE	8.	EA						
1670-01-016-7841	PARACHUTE, CARGO, 100 FT DIA, G-11B	24.	EA						
1670-01-020-2013	BRACKET SUSP. (ST)	16.	EA						
1670-01-035-6054	BRIDLE, EXTRACTION LINE BAG	8.	EA						
1670-01-036-0754	LINE, DROUGUE	8.	EA						
1670-01-062-6302	SLING, CARGO, AIRDROP, 20 FT 2 LOOP TYPE XXVI	160.	EA						
1670-01-062-6304	SLING, CARGO, AIRDROP, 9 FT 2 LOOP TYPE XXVI	8.	EA						
1670-01-062-6305	SLING, CARGO, AIRDROP, 9 FT 4 LOOP TYPE XXVI	12.	EA						
1670-01-062-6306	SLING, CARGO, AIRDROP, 3 FT 4 LOOP TYPE XXVI	12.	EA						
1670-01-062-6308	LINE, MULTI-LOOP, 16 FT	8.	EA						

VERIFIED BY : _____ ISSUED BY : _____ RECEIVED BY : _____

AUTHORIZED SUBSTITUTE FOR DA FORM 2062

TABLE 6. Airdrop Mission Equipment Total Hand Receipt (cont'd).

612th OM. CO.
AHMS Ver.2.0

AIRDROP MISSION EQUIPMENT TOTAL HAND RECEIPT

DATE : 09/14/88 (88258)
PAGE : 2

SORTED BY : ITEM NSN

MISSION	MISSION DATE	STATUS	MILITARY UNIT	AUTHORIZATION					
18TH FA AA	10/01/88 (88275)	PLANNED	18TH FA BDE						
ITEM NSN	ITEM DESCRIPTION	QUANTITY ISSUED	UNIT	QUANTITY					
				A	B	C	D	E	
1670-01-062-6313	LINE, EXTRACTION, 60 FT 3 LOOP TYPE XXVI	12.	EA						
1670-01-063-7761	SLING, CARGO, AIRDROP, 16 FT 2 LOOP TYPE XXVI	32.	EA						
1670-01-064-4452	LINE, EXTRACTION, 60 FT 1 LOOP TYPE XXVI	4.	EA						
1670-01-064-4454	LINE, EXTRACTION, 60 FT 6 LOOP TYPE XXVI	8.	EA						
1670-01-072-1378	LINK, EXTRACTION, ASSEMBLY (H-BLOCK)	4.	EA						
1670-01-162-2366	RAIL, 24 FT, TYPE V	32.	EA						
1670-01-162-2369	RAIL, 16 FT, TYPE V	16.	EA						
1670-01-162-2372	CLEVIS ASSEMBLY, TYPE V (TIEDOWN CLEVIS)	696.	EA						
1670-01-162-2374	BRACKET, OUTSIDE EFTA	20.	ea						
1670-01-162-2375	BRACKET, INSIDE EFTA	20.	ea						
1670-01-162-2376	BRACKET ASSEMBLY, EXT	16.	EA						
1670-01-162-2381	TANDEM LINK ASSY (MULTI-PURPOSE)	88.	EA						
1670-01-162-2382	ROLLER PAD, 16 FT, TYPE V	32.	EA						
1670-01-162-2385	NOSE BUMPER, TYPE V	24.	EA						
1670-01-162-2388	ROLLER PAD, 24 FT, TYPE V	64.	EA						
1670-01-168-8397	PANEL, MAIN, TYPE V	232.	EA						
1670-01-168-8398	PANEL, REAR, TYPE V	24.	EA						
1670-01-183-2678	PANEL, LINE, EXTRACTION	48.	EA						
1670-01-247-2389	ASSEMBLY, SUSPENSION LINK	16.	EA						
4030-00-090-5354	CLEVIS ASSEMBLY, LARGE	128.	EA						
4030-00-432-2516	CLEVIS, SUSPENSION WITH SCREW PIN AND SLEEVE	32.	EA						
4030-00-678-8526	CLEVIS, MEDIUM	16.	EA						
4030-00-678-8562	CLEVIS, SUSPENSION, CARGO	48.	EA						
5315-00-164-5122	NAILS, 20D	4.							
5365-00-937-0147	D-RING, HEAVY DUTY	756.	EA						
5510-00-220-6448	LUMBER 2 X 6	4.	EA						

VERIFIED BY : _____ ISSUED BY : _____ RECEIVED BY : _____

AUTHORIZED SUBSTITUTE FOR DA FORM 2062

----- END OF REPORT ----- 70 ITEM(S) LISTED

AMEMS PRODUCTIVITY IMPROVEMENTS

AMEMS reduced mission planning time by 90%. Greater reductions in planning time would be possible with more complex missions. In addition to the time savings, AMEMS provides other benefits that increase the productivity of the rigging company.

Because the computer operator requires no rigging knowledge, more rigging "experts" are made available to rig the loads for a mission, further increasing productivity.

The manual mission planning system is quite tedious and prone to error. AMEMS significantly increases accuracy as it is not susceptible to computational errors.

AMEMS provides greater flexibility in handling last minute mission changes in load types, load quantities, and aircraft. These changes can be made with a few keystrokes using the mission loads edit option, and reports can be regenerated in minutes. This flexibility, in addition to the reductions in planning time, greatly improves readiness.

The creation of the AMEMS interface to the Army Master Data File makes cost calculations possible for each mission. Previously, rigging item costs were only available on microfiche, which made it too tedious and time-consuming to determine costs on a per mission basis. In addition, the AMDF interface will simplify the preparation of the Missing and Damaged Report. Budget forecasting will also be enhanced through use of the mission costing option.

AMEMS also provides a tool for contingency planning. If accurate inventory quantities are maintained on the computer, planning a mission will allow the user to determine if sufficient quantities of rigging materials are in stock. If not, an indication of the quantities to order will be given.

AMEMS can be used for remote site rigging as well because its portability makes it readily deployable.

FUTURE EFFORTS

An inventory control module is currently being developed to work in conjunction with the mission planning programs. Changes in inventory quantities on hand will be triggered by the users' indication of a change in mission status.

The first stage of mission planning is "pre-planned" (mission is added but no loads are indicated yet), whereas the last stage is "complete". When the mission status is changed to "rigged", the item quantities required to rig all loads for the mission will be subtracted from the inventory amounts on hand. Once the loads have been dropped and the rigging items are "returned", the quantities will again be added to the amounts in stock. There will be an option to indicate items not returned due to loss or damage. These items will be designated in the Missing and Damaged Report. Warehouse personnel will use the computer to indicate items quantities on order or order quantities received. This step will not add to the warehouse workload, as all records of supply transactions are currently kept manually.

Once the inventory control module is complete, AMEMS will be modified (if necessary) to meet the requirements of the 82nd Airborne Division. The system will then be implemented at the 407th Supply and Support Battalion's heavy drop rigging site, where it will be evaluated in comparison to their manual mission planning and inventory control procedures. Preliminary interviews with 407th personnel have been conducted, but additional discussions will be necessary to complete the analysis of their operations.

AMEMS could also be useful at Fort Lee's rigging school and airborne department. TROSCOM could use AMEMS for procurement planning and long-range mission planning. When the system is complete, it will be possible to distribute compiled copies of the programs to those who are interested.